



CORPORATE FINANCE

OECD/ECMT/JTRC

Financial Viability and Affordability of Off-budget Infrastructure Funding Models

ADVISORY

Foreword by Dr Timothy J Stone



We attach our report from a short study to assist the work of the Organisation for Economic Co-operation and Development (OECD)/European Conference of Ministers of Transport (ECMT)/Joint Transport Research Centre (JTRC) on investment in transport infrastructure. You asked us to look at the factors that determine the financial viability of inland transport projects - mainly roads and rail - focussing on the ones that use innovative, “off budget” funding mechanisms such as Public Private Partnership (PPP) concessions and other structures such as specialised government agencies, special funds or taxes.

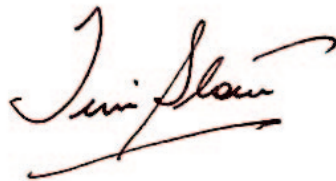
We have identified factors that affect long-term project affordability from the point of view of government and users, and financial viability from the infrastructure operator’s perspective. It is no surprise that these factors overlap and are driven by complex issues specific to each project and set of circumstances. As a result, we have adopted for the five case studies considered an evaluation methodology that reflects these complexities.

Our conclusions are as follows:

- “Off budget” funding mechanisms do not of themselves determine affordability and financial viability. Rather, it is the project specifics in key areas that matter the most. These areas include: level of project realism, extent of project preparation, maturity of the regulatory environment, strength of local financial markets, effectiveness of the legal framework and depth of bidder expertise.
- If the project revenues do not cover operating costs and the concessionaire’s cost of capital, then it is unlikely to be financially viable in the long run. The M5 project in Hungary provides a good illustration of this point.
- Specialist transport agencies in the public sector have no profit motive to drive efficiency gains. Transport funds can be used to support strong or weak projects, but such hypothecation is often no more efficient than raising funds from general taxation.
- Of the funding mechanisms considered, PPPs are the only ones that spell out the project specifics – for instance the funding structure of each project and expected returns on investment.
- The funding mechanisms are not mutually exclusive. For instance many governments are using receipts from road taxes to fund PPPs. The German A-Modell road scheme is a good example.

- Well structured concession or PPP contracts can protect the public interest with provisions such as revenue sharing, refinancing gain sharing and sometimes benchmarking.
- Our review of case studies show that the factors that affect financial viability and affordability are many and varied and often depend on project specific circumstances.
- We have highlighted realism in the planning stages as a crucial factor; we have also noted the benefits of competition, and the requirement for countries to have appropriate legal and regulatory structures.
- As the Skye Bridge example shows, even where a project is financially viable for the concessionaire and affordable for most users, popular opposition driven by ideological objection and perceptions of social inequity can result in project failure.

I hope this report makes a useful contribution to your work.

A handwritten signature in black ink, appearing to read "Tim Stone". The signature is fluid and cursive, with a long horizontal stroke at the end.

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Introduction



KPMG was commissioned by OECD to prepare a short report looking at the financial viability and implications of private sector involvement in inland transport infrastructure. We proposed to do this from a practical and commercial perspective, drawing on our experience of international project finance, and with reference to concrete examples from recent international experience.

There are many aspects to project viability. Our main area of focus was the financial elements. In other words, what are the elements, under different circumstances that define and determine the affordability of a given project, while also allowing it to meet objectives in terms of optimal usage? At what point does a project become unaffordable to governments or to users? What factors influence its financial viability, and will make it unstable? And how can the costs of the project be balanced and spread to improve affordability?

We considered a number of key questions:

- What is the public's willingness to pay – through fares and tolls? How is this determined? Are there means of measuring this? What mechanisms might increase the public's willingness to pay user charges?
- What factors affect governments' willingness and ability to support the project? What quantifiable factors should be taken into consideration in determining the appropriate levels of grants and contributions that could be provided by government? What mechanisms might determine an appropriate level of contribution? What sources of government revenues should be taken into account, including taxes, property options and others?
- What factors affect the inside of a concession or PPP, and give it financial viability?

The approach we took, in a short study, was to have an internal workshop to look at the different factors behind project viability and to develop a standard questionnaire. We then used the questionnaire as a tool for desk research on a number of case study projects, and developed a radar graph as a way of displaying each project's performance against a number of key criteria. We summarise the facts of each case study in Annex A; those unfamiliar with these projects may want to review this Annex first. Annex B provides detailed scores for each project against the key criteria.

We have adopted in the report the convention of using *funding* to mean who ultimately pays for a project and of using *financing* to mean mechanisms for spreading capital costs over time. So funding comes either from users or

governments for transport projects; and finance can come from public or private sources. With finance comes an opportunity to shift the risks inherent in the project as finance does not always have to be guaranteed. But the private sector financiers will only be funding projects inadvertently where something has gone very wrong, as with the Channel Tunnel or the Croydon Tramlink in the UK. Such failures tend to have a strong effect on market sentiment.

There is also a subtle difference between the term *financial viability* and the term *affordability*. Financial viability looks at the issue from the perspective of the infrastructure operator; affordability from the point of view of the government or user who is paying. Financial viability is a subset of project viability, which could also include technical or other issues. The links between financial viability and affordability are complex. At the simplest level, an increase in the allowed level of user charges would improve financial viability but reduce user affordability. But the relationship is not a simple trade off; an unrealistic project could turn out to be both unviable and unaffordable.

This report is structured around the terms of reference you gave us. Section B looks at the different off budget mechanisms which allow governments to tap into different types of finance, and sometimes to access new sources of funding. These include:

- Specialised government agencies with borrowing powers
- Dedicated transport funds
- Dedicated transport taxes (e.g. fuel, property)
- Public Private Partnerships (PPP), including BOO, BOT, DBFO schemes, concessions; and
- Full scale privatisation

In Section C of the report we then concentrate on bringing out the lessons learnt from our case studies of PPP projects about the factors affecting project viability and affordability at individual project level.

This is a short study with the aim of provoking discussion and sharing some learning points. There are no simple answers to project viability and affordability; and different countries have quite reasonably adopted different approaches. Yet the same mistakes continue to be made, in particular when short term political or administrative objectives dominate in a long term and expensive project. One advantage of involving private finance is that it puts more of a requirement on governments to consider and state objectives and to prepare higher quality documentation for a competitive process.

Section B - Mechanisms



Specialised government agencies with borrowing powers

Under this approach, governments establish public sector corporations with borrowing powers to deliver infrastructure related services and undertake capital investment. These bodies are usually run on a self-standing commercial basis (although most will receive occasional subsidies from government) with an ability to raise revenues through user fees. A classic example to consider is the traditional railway company – like British Rail, Deutsche Bahn or SNCF in the 1980s.

Government's role is to establish the legal basis for the agency, agree its annual budget, give it the appropriate borrowing powers and set any borrowing limits deemed necessary. In other words, the role is an all encompassing one as enabler, customer, regulator, subsidy provider and in, some cases, arbiter.

To the extent that the agency is able to levy user fees, these normally reflect a balance between political acceptability and the economic requirement for operating costs and a surplus.

The difficulty is that most transport infrastructure businesses, whether under public or private sector control, are not able to price at a level that will give cost recovery. Commercial prospects are viewed optimistically and government intervenes for political reasons; the result is inefficient and loss making organisations which run up debts.

In the end governments tend to intervene to control debts, whether these are formally on its balance sheet or not. The trend in the railway industry in Europe has been to try and separate out government's roles – establishing sustainable levels of subsidy, independent regulation, separate operating and infrastructure divisions and so on.

Nothing in this structure determines what the balance between user pricing and government subsidy is for any project, or which investment projects are justified. And over time new independent agencies revert to the bureaucratic norm for that society, as there is no profit motive to drive efficiency. At a programme level, the main contribution to the affordability question becomes whether the agency's borrowing is seen as different to that of government. Some examples are highlighted below.

Examples

In Japan, the Japan Public Highways Corporation (JPHC) has a mandate to develop and run the tolled motorway system. Although the JPHC has achieved a great deal in providing significant infrastructure for Japan, it has not been financially successful. Recently, the Japanese Parliament passed bills that will lead, by March 2006, to the privatization of JPHC, Metropolitan Expressway Public Corporation, Hanshin Expressway Public Corporation and Honshu-Shikoku Bridge authority. The four highway operators together have debts of some JPY40 trillion (\$360 billion), which the government is required to pay off within 45 years.

Infrastructure S.p.A. (ISPA) is a joint -stock company established by the Italian government to provide finance for infrastructure. ISPA has raised financing from the capital markets for the construction of a high-speed railway link. The proceeds were then provided to state owned infrastructure and operating companies RFI and TAV in order to finance the construction of the high-speed railway link. ISPA does not bear any construction or operating risk. Eurostat has issued a recent ruling that all debt raised by ISPA is to be recorded on the government's balance sheet. This appears to remove ISPA's objective. By contrast, in the UK, the company responsible for the rail infrastructure, Network Rail, was set up with more independence and a regulatory structure. Eurostat has agreed the treatment of Network Rail as off balance sheet for the UK Government.

The Hungarian government has recently instructed the State motorway management company AAK to undertake a EUR 2.5-3 billion bond issue for the purpose of funding future motorway infrastructure development. The government's intention is to move motorway construction funding off-budget.

The main point about this structure is that it does not appear to be enough to ensure project viability. For less developed countries, administrative reform may represent a stepping stone to further change. But it does not really address any of the project issues, and off balance sheet treatment generally requires greater independence and risk bearing capacity. Users tend to find services provided by these agencies affordable, because they often do not reflect the full economic cost in their pricing; governments tend to pick up the difference in the long term.

Dedicated transport funds

Generally, these funds are established by governments to provide a stable flow of monies to support the upgrade, operation and maintenance of transport infrastructure. They tend to be sector specific and are more likely to be found in the roads sector.

Road funds tend to be established as independent legal entities with their own governing board, but in some cases they are run as bank accounts controlled by government road agencies. The former approach has been shown to be more effective, as it provides a layer of independence.

Road funds tend to be funded from either road user taxes and charges or transfers from the government's general tax revenues. The former source is relatively stable, while the latter is highly unstable. Governments, although in theory in favour of the road fund, can still find the temptation to transfer funding to other needs overwhelming - particularly during times of fiscal constraints.

Views differ on road funds: many economists are against the establishment of dedicated road funds on the grounds that they fetter the discretion of spending departments (fiscal inflexibility) and therefore undermine their ability to make sensible spending decisions. However, the evidence suggests that in a situation where there is significant infrastructure development and maintenance backlog, countries do use dedicated infrastructure funds to attempt to redress the situation.

User buy-in for the imposition of charges to support a fund will be easier to secure if user representatives are present on the management board of the fund. Users, being the ones who pay the tariffs, have a vested interest in ensuring that the fund's proceeds are not misappropriated or diverted towards other purposes.

For road funds, possible revenues from user taxes and charges include: (i) fuel levies, bridge and ferry tolls and weigh bridge fees; (ii) vehicle license fees; and (iii) international transit fees. Some countries also pay fines from overloaded vehicles into the road fund on the grounds that these vehicles cause disproportionate damage to the road network.

Again the structure itself does not tell us very much about affordability – either in terms of the users or the government. And as a national or regional structure, it says little about particular projects. Some examples of transport funds are highlighted below. Similar issues are raised by the next structure – dedicated transport taxes.

Examples

The Czech State Fund for Transport Infrastructure was created as a legally separate unit subordinated to the Ministry. It is responsible for funding the development, building, maintenance and modernisation of roads, motorways, railways and waterways. It is governed by a Committee headed by the Minister but there is a Supervisory Board whose members are elected by the Czech Parliament. The Fund's revenues are derived from government transfers, motorway tolls, investment income, interest on loans and EU grants.

Chile has taken a network-wide approach to funding its highway network. The government has established an Infrastructure Fund through which various payments by concessionaires of profitable highway concessions are used to cross-subsidize concessionaires of unprofitable highway concessions. The Japanese operate a similar "pool" system which allows for an aggregation of toll receipts nationwide towards motorway construction and operating expenses. This allows successful roads to be used to subsidize the not-so-successful ones.

Experience shows that for roads funds to work, they must have¹: (i) clear objectives; (ii) an independent source of revenues mobilized through a road tariff; (iii) arrangements for effectively managing the road fund; and (iv) commercial accounting systems and independent audit arrangements.

Dedicated Transport Taxes

The Americans and Japanese have funded road transport infrastructure from dedicated gasoline taxes for many years. This approach, however, may be changing because of the imbalance between the demands on the road network and the public's dislike for high fuel taxes. In the US, there is a move towards raising user charges from tolling – with ambitious plans in Texas. New federal legislation allows state governments to impose tolls on roads built from federally raised taxes provided there is electronic tolling.

Both tax receipts and user charges can be securitised to finance major capital projects without on balance sheet lending. This is particularly useful where states or municipalities are constrained from borrowing themselves; but it can be expensive if there is real revenue risk for the private sector.

London's congestion charge is also a form of road charge, whose proceeds are dedicated for use in upgrading public transport.

¹ African Road Funds, what works and why? World Bank (March 1995)



There has been considerable debate over the balance between direct road charges, such as tolls, and taxes such as fuel duties and licence payments. One recent development has been the introduction of electronic tolling schemes so that governments can charge on the basis of the type of vehicle and distance travelled. This is examined in the example below:

Examples

On the German A-Modell roads scheme, revenues received from the charges levied on Heavy Goods Vehicles (HGVs) - via an electronic charging system - are applied directly towards the expansion of highways from 4 to 6 lanes.

A new company, VIFG, was founded separate from the Ministry of Transport and charged with the responsibility for managing the HGV toll revenue in order to ensure that all monies collected are invested in transport infrastructure projects. This approach ensures transparency for users and taxpayers alike.

Hypothecation of taxes has traditionally been seen as a bad idea - why should beer duty be spent on beer drinkers alone? And in Europe, governments tend to raise considerably more from fuel taxes than is spent on the roads as this fits with environmental objectives of reducing traffic. In the US, the situation is different with lower taxes, of which 75% are spent on highways, with much of the rest on other transport projects.

Recently hypothecation has re-emerged as an idea in Europe because if taxpayers are aware of what money is spent on they may be prepared to accept a higher level of tax. But if income from the new charges merely substitutes for what the government would otherwise have spent, then any illusion will only be temporary. Implementing any scheme involving dedicated taxes is usually politically sensitive. Where dedicated taxes and charges are collected, users will expect them to be spent on worthwhile projects. The positive affordability effect for governments is only where additional sources of revenue can be tapped.

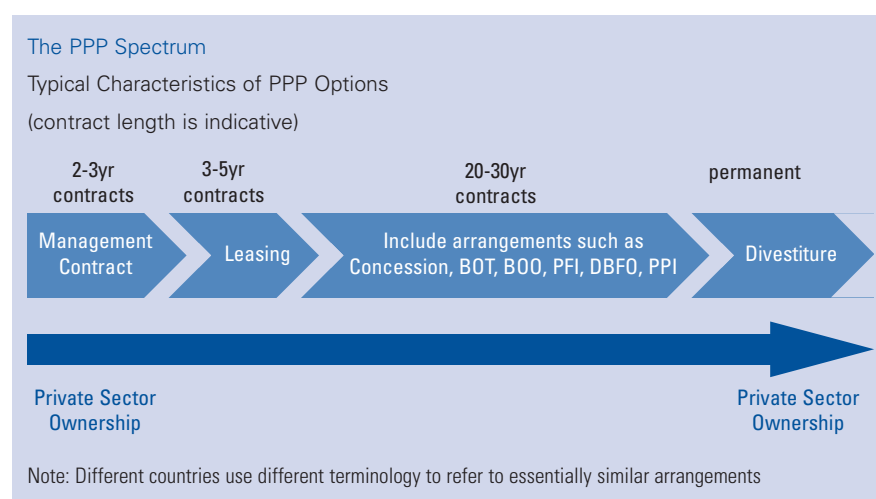
A further recent argument is that property taxes or charges could be linked to transport projects. A new road or rail line brings economic benefits to the zone near it, which often result in higher property prices. These can be captured through taxation for the benefit of the project. In our experience, there is the prospect of a partial contribution here; but both the mechanism and the zone need careful consideration. Local taxation is being discussed as a means of financing a part of the Crossrail project in London.

This approach again tells us nothing about the individual projects and what their financial viability or affordability might be.

Public Private Partnerships/Concessions

PPPs and concessions differ from the mechanisms above. They are normally more project specific and deal with the financing and operation of an infrastructure asset, rather than a country or region wide approach to collecting funds. Consequently they can be used in conjunction with most of the other mechanisms.

There is a wide range of PPP arrangements, as shown in the picture below, including management contracts, concessions, BOO, BOT and privatisations.



PPP projects involving long-term contracts have certain defining characteristics:

- Public sector retains strategic control over service delivery – by setting the specifications and regulating prices;
- Private Sector contractor takes full responsibility for design, delivery and operations;
- Private Sector contractor accepts the responsibilities and risks of delivering the project;
- Payments are made by:
 - Users of the service (e.g. road tolls or rail fares); and/or by
 - The public sector partner for performance and availability and in some cases usage
- Whole life costs are minimised;
- Designed to encourage the most efficient use of public sector resources (i.e. value for money)

There is a fairly well understood list of what governments need to do to promote PPPs. While easy to state, it can be difficult to put into proper practice and this limits the ability to implement PPPs in some countries. The list includes:

- Maintaining political commitment & building procurement capacity in the public sector
- Developing a transparent, competitive and succinct bidding process
- Developing a framework for prioritising projects
- Training, gathering and disseminating information
- Ensuring value for money for the taxpayer
- Managing and influencing public opinion
- Developing deep and flexible capital markets

In the developed world, toll road concessions have a long and successful history in countries such as France, Spain, and Italy. For instance the French concession model (*affirmage*) has been in operation for over 150 years.

PPPs/concessions, if properly structured, can certainly be financially viable without being excessively profitable. Financial viability requires the private sector to be able to recover its cost of capital – and thus service debt and reward equity. Where this does not happen the PPP will face financial viability issues, which can be a threat to public sector interests as well. Renegotiation is a frequent outcome, and raises difficult choices for government. In our experience, it is important for governments to analyse financial viability issues at the outset and to understand how robust the PPP bid is. Bids can sometimes be opportunistic, perhaps in expectation of future renegotiation, and contain a high level of risk. In Section C we consider some examples of success and failure in European countries. There are also known difficulties in developing countries.²

The question of whether PPP projects are affordable is an interesting and complex one. It is important to dismiss one key fallacy immediately; the private sector is financing not funding the project - either users or government will have to fund it in the long run. Since private finance will have an additional cost, reflecting the risks transferred, PPP projects only make sense where private sector construction and operational efficiency gains outweigh the higher cost of private capital.

² A recent study (Guasch 2003) showed that 55% of transport concessions signed in Latin America between 1985 and 2000 were renegotiated within, on average, 3.32 years. Such renegotiation was in approximately 70% of cases initiated by the private sector. Different theories abound as to why this is the case, but one likely reason is because bidders bid too aggressively in order to secure the concession. Once appointed, they then re-negotiate in order to achieve what they consider to be a realistic return on investment.

There are, though, a number of arguments in favour of PPPs:

- There is evidence that PPPs, when properly structured, are more efficient, and produce better value for money than traditional procurement, from greater competition, innovation and attention to whole life costing³.
- The risk transfer in PPPs often allows an off balance sheet treatment which means that governments can spread the cost of expensive capital projects – and pay for them as they are used rather than when they are built.
- The thorough preparation for PPPs and the involvement of private sector partners means that project costs and revenues get very careful scrutiny, as does the project's affordability. This to some extent operates as a filter for unaffordable and financially unviable projects.
- The introduction of PPPs has allowed new user charges to be introduced for some projects– for instance tolls on roads in Ireland.

This said, PPPs do not represent a free lunch. Government or users will ultimately have to pay. Over the long-term governments must ensure that they have the required budgetary allocation in place to support their PPP commitments otherwise the project will fail.

There may be a need to improve the creditworthiness of particular government bodies or particular user revenue streams – for instance in Brazil there is a cash collateralised fund to back the long-term payment obligations of municipalities and government departments; and on the M5 project in Hungary, there was a sharing of revenue risk; on CTRL, the UK government provided loan guarantees. Credit enhancements like these examples reduce the cost of private finance.

Full Privatisation

Full privatisation implies outright divestiture by the government of its shares in a publicly owned enterprise - this can sometimes be seen as a form of PPP, especially where the enterprise is a monopoly provider of utility services.

The eighties and early nineties saw a wave of privatisations sweep through most of the developed world. Regardless of the model of privatisation, effective regulation is the key to financial viability and user affordability. Regulators have to tread a thin line between being unduly punitive, and discouraging market abuse because transport infrastructure systems are natural monopolies. Without adequate regulation, operators can become complacent because many

³ Meeting the Investment Challenge – H M Treasury July 2003



infrastructure services are extremely price and income inelastic.

The experience of privatisation across the world has been mixed, with some countries having made better progress than others. A detailed review of the experience of privatisation around the world is beyond the scope of this report.

It is however worth noting that in the transport sector, most outright privatisations have been in the airports and ports sectors. Most rail networks have been concessioned. It is also interesting to note that the current sale of the French motorway companies is more like a sale of concession owning companies than an outright road privatisation.

What is the link between privatisation and affordability? Where user charges are sufficient to meet long run costs, for instance in the utility sector, privatisation removes artificial government spending restrictions. This allows privatised companies to invest from their own resources. As the UK experience with rail privatisation shows, however, where an industry is dependent on government subsidy, it is very difficult for government to stand back from major investment decisions. And this factor makes privatisation a less attractive option in most of the transport sector – other than airports and ports.

The need for financial viability means that privatisation is usually preceded by restructuring to improve the profit and loss account and the balance sheet – by removing historic pension liabilities and debt and by ensuring revenues from users and government exceed costs.

Section C - Viability and affordability



Factors that influence viability of PPP Concessions

In this part of the report, we have concentrated on the PPP concession approach to off-budget funding of transport infrastructure because of all the funding mechanisms considered in Section B, PPPs are the only ones that spell out the project specifics from the outset – for instance the funding structure of each project and expected returns on investment. This said, as noted earlier, PPPs can be combined with the other funding mechanisms as a way of driving greater efficiency.

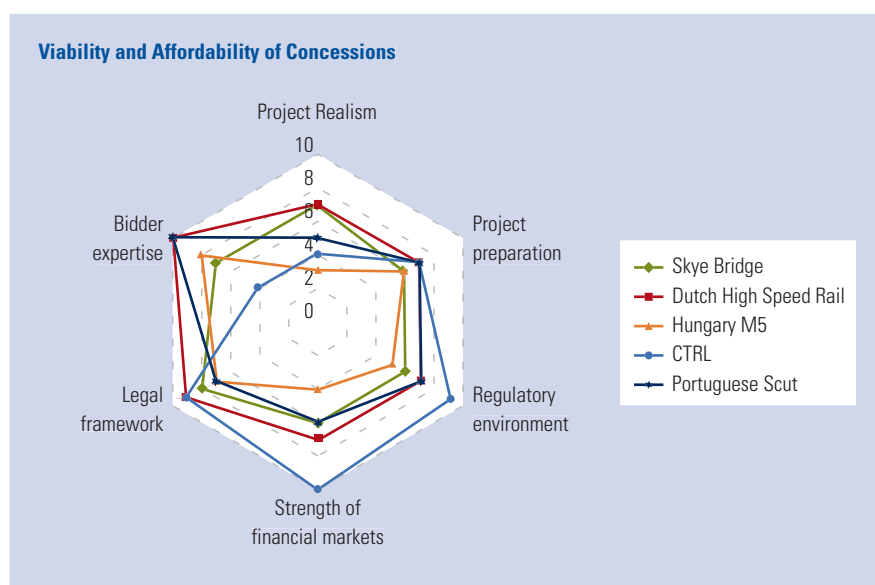
Our approach has been to apply the same standard evaluation framework across five selected projects. A summary of each of the project case studies examined is provided at Annex A. Annex B contains detailed scoring tables.

The five projects, in four OECD countries, are:

- Hungary - M5 motorway project;
- Netherlands - High Speed Rail Link (HSL);
- Portugal - SCUT shadow toll roads
- United Kingdom - Channel Tunnel Rail Link (CTRL)
- United Kingdom - Skye Bridge

Factor	Sub-factor
Project Realism	Costs Expected revenues Availability of government support Level of toll/user charges Existence of competing/alternative routes
Project Preparation	Technical studies Planning Project promotion to stakeholders Project complexity and innovation Procurement process and competition Project definition and clarity of requirements Context of project
Regulatory Environment	Legislative framework for regulation Concession legislation Regulatory institutions
Strength of financial market	Deep and liquid capital market Instruments and funding institutions
Legal Framework	Culture of contractualising private sector service provision to the public sector Procurement laws Property rights Expropriation risk
Bidder Expertise	Number of bidders Financial and technical expertise in the sector

These factors and sub-factors are essential pre-requisites to ensure project viability and affordability. The radar map⁴ below compares the selected projects against each of the factors. The marks given are subjective; and all factors have been assigned equal weighting although this may not be the case in reality. Any scoring system of this nature can only provide a broad representation of the issues and is unlikely to be able to capture some of the more subtle differences between projects. For instance, the chart for the Skye Bridge does not bring out fully the impact of the perceptions of social inequity that were so critical to the project outcome.



A) Project Realism

Costs: the link between cost and affordability is obvious. Even where the expectation is that users will pay, the risk involved becomes substantial. Projects undertaken for 'prestige' reasons are prone to viability issues. All the case studies examined, apart from Skye Bridge, were large projects with exceptionally high project capital expenditure compared to other projects being procured in the country at the time. For example project debt for the M5 represented the highest amount and longest tenor debt that had ever been raised for infrastructure in Hungary at the time. This scale was a factor behind overoptimistic traffic projections and a lack of realism.

Expected Revenues: unrealistic traffic projections are a common cause of project viability issues. Some recent studies have identified a strong bias towards optimism in road and rail traffic studies⁵. Private sector operators, and lending

⁴ Points have been awarded out of 10; with 10 being the most satisfactory score and 0 being the least satisfactory.

institutions, are usually unwilling to take full revenue risk for this reason. So revenue risk is often now shared between public and private sectors.

Exchange rates also affect revenue volatility. Where countries cannot borrow in their own currency, they face a currency mismatch between a project generating local currency and foreign currency debt and equity. The solution adopted in many countries was to allow user charges to fluctuate with changes in exchange rates. The Asian crises in the late nineties however demonstrated that this solution was far from ideal; after the collapse of local currencies, users were unwilling or unable to pay the escalated rates.

The case studies produced a mixed picture on revenue risk and the extent to which it affected project viability. On CTRL, the revenue forecasts were wildly optimistic: the numbers of passengers using the high speed train services between London and Paris and London and Brussels are about half that predicted number. By contrast, revenues on the Skye Bridge have been higher than expected. On the Portuguese SCUT toll road projects, the shadow tolls have been higher than expected.

Government grants: political will is a key ingredient in eliciting government support for a project. The timetable for planning and constructing a major infrastructure project is normally at least five years and often ten. During that period, at least one election will occur in most countries with an effect on political will; and the position on the economic cycle will also change with an effect on fiscal flexibility.

Government support can be provided in a number of ways, including:

- direct grants to support the initial capital investment;
- performance-based service payments (also known as availability payments);
- by allowing the operator to levy user charges;
- contributing an asset, for instance, land, buildings or an existing tolled crossing in order to improve the project cash flows;
- soft loans, sovereign guarantees, minimum revenue guarantees and exchange rate guarantees;
- subsidies to reduce user charges.

The case studies demonstrate the variety of ways in which government support can be provided, and the impacts on project viability. On the M5 the Hungarian

⁵ Standard and Poor's: Traffic Forecasting Risk Update August 2005 and Review of Large Public Procurement in the UK – Mott MacDonald (July 2002)

government provided a revenue shortfall facility. This prevented early default but added government affordability issues to the user ones. The UK Government provided government guaranteed debt for CTRL unusually on an off balance sheet basis; but the Office for National Statistics (ONS) confirmed recently that this would not now be the case for part of the debt. On the Skye bridge project, the objective was to reduce toll levels by direct payments for land purchase and government provided grants of 12.5% of total revenues in order to subsidise user fees. The Dutch Government supported the HSL by funding the civil engineering works through Design and Build contracts which required no long term finance.

Grants from national government itself clearly raise affordability issues; but they reduce future payments by users or government. The level of government grant involves some trade-offs. Grants can be paid on a milestone basis during construction, but can still be fixed in amount. This has the effect of leaving funding risks with the private sector (provided the private sector body has the financial strength to carry them).

Government loans and guarantees have their place. Credit enhancement can be an effective way of reducing the cost of debt. But governments need to think hard about the risks they are taking on, and the realism of the business case, as governments themselves have to reflect these in national accounts.

EU Commission rules currently only provide for EU grants to be put into projects during construction.⁶ Capital grants make it easier for the concessionaire to raise the remaining finance and reduce the total bill to government. There is considerable discussion about what is the right balance between public and private finance – as too much public grant reduces private sector incentivisation.

Two rules of thumb adopted by experienced practitioners are that the grant should not exceed 50% of capital costs, and that grant should be considered where the financing requirement is over €2 billion as these projects can strain market capacity. Projects where the majority of capital costs are grant financed are possible, but the risks of cost escalation and delay during construction are more likely to have to be picked up by the public sector. Market Capacity issues are based on judgement and the maturity of local capital markets - these vary over time, but larger projects like the CTRL tend to have a mixture of public and private financing.

Tolls/user charges: the rate of user charges has to balance different factors. These include the overall cost of the project including finance, the amount that government is prepared to contribute, the cost to the user of alternative options and what is socially and politically acceptable. Rail projects almost always require

⁶The EU Commission is currently considering whether the leverage of its TENs grants would be improved if the option also existed for them to be paid over the operating life of a project to support availability payments.



an element of subsidy; and many road concessions also receive it. The Skye Bridge illustrates neatly that there are political and social factors as well as economic demand.

Tolls will change over time. Tolls can be reset either through a contractual mechanism, or through the use of a regulator, or for public projects through political decision. The PPP concessionaire will expect a reasonable level of certainty at the outset and will tend to prefer a contractual formula. When setting these formulae public authorities need to be realistic as to the level of fare increase that will be acceptable in future. For example, a permitted annual real rise of 5% in commuter rail fares, typically with low elasticities, would have very substantial results over a 30 year contract.

Political acceptability varies from country to country. For instance in the UK, road tolls remain rare and most privately financed roads have been based on a shadow toll model. In the US and Europe, user tolls are more common. Some countries have used user surveys or measures of average disposable income to assess the level of tolls that users were likely to find acceptable.

Tolls can also be used as a tool for implementing wider transport policy. For instance if the key policy option is to control congestion, toll rates will vary according to the most congested times of the day. Where the government's primary aim is not to influence driver behaviour through the pricing mechanism a shadow toll could be put in place.

Shadow tolls, however, have affordability implications for government. The Portuguese SCUT roads provide a good illustration of how governments can 'silt up' their budgets. Shadow tolls have proved unsustainable for the Portuguese budget; the previous government considered converting these to real tolls in order to address budgetary constraints and this idea may be taken up by the current government. Either way, no more shadow toll roads are likely to be built in Portugal.

An important part of advisers' work on PPP projects is discussing affordability issues with governments and preparing analyses of the impact of PPP payments on future budgets. These analyses are normally prepared for the full life of the PPP and often look at variations in possible payments. Traffic levels were forecast for the SCUTs, and in hindsight they are reasonably accurate, but the Portuguese Government did not consider affordability issues thoroughly.

The M5 and the Skye Bridge show some of the difficulties of user tolls. The M5 demonstrates issues of economic demand: tolls were too high against users' income and the costs of using alternative routes. In Skye, tolls were seen as being

inequitable because the ferries had been discontinued and there was no alternative means for drivers to reach the island. Both tolls have now been scrapped.

Alternative Routes: bridges and tunnels tend to be well suited to user charges because the benefit of choosing a tolled crossing to an alternative un-tolled route can be more easily identified. Governments prefer to introduce a free alternative whenever a toll road is being introduced in order to avoid penalising users in the lower socio-economic groups. The SCUT projects illustrate this principle – the shadow toll approach was adopted where no alternative free route was identified; This said, the existence of alternative routes can severely affect project financial viability as demonstrated by the M5 project.

As this subsection has shown, there are a number of elements in project realism and it was a major cause of viability issues in the case study projects (with the exception of the HSL). The techniques for addressing realism exist, and can be used in the preparation of business cases. But as Flyvbjerg argues⁷, there are also institutional factors which can encourage project promoters and governments to ignore reality. PPP can provide a partial answer for three reasons: i) they involve private sector parties with a strong incentive not to underbid; ii) they involve a competition which promotes different thinking and provides an incentive not to overbid; and iii) the process normally involves more preparation by the public sector than a traditional procurement – which leads us into the next subsection on project preparation.



⁷ Procedures for dealing with Optimism Bias in transport planning – Flyvbjerg & COWI (July 2004)

B) Project Preparation

Project preparation is very important and key to success. Projects progress more quickly if the proper feasibility studies have been undertaken and expropriation, development and environmental consents are in place. All the projects examined were prepared reasonably well.

Planning Risks are usually shared between public and private sectors. It is usually the case that the public sector obtains outline planning permission first, with detailed planning permission and consents being obtained by the private sector later. On M5 and Skye, governments had to intervene and accept this risk, amending their earlier plans for greater risk transfer. On CTRL, government had to pick up the cost of earlier strategic decisions to take the line across the Thames and into the centre of London. In the end, planning issues were not critical to any of our projects.

Project promotion to stakeholders: A project needs to be promoted to wider stakeholders such as unions, landowners, the general public/consumers, environmental groups etc in order to have any chance of succeeding. This is usually undertaken through information campaigns and public inquiries. In general all the case study projects received local stakeholder support – with the exception of the Skye Bridge tolls.

Project complexity and innovation: Projects that are particularly technically complex and/or innovative have a higher likelihood of running into difficulties during construction, and therefore are higher risk. In some cases, the only way to make such projects viable is by the public sector sharing more risk with the private sector. Of the projects reviewed, only the CTRL and Dutch HSL were technically complex – but for CTRL phase 1, the line opened on time and on budget. This suggests that project complexity alone is not necessarily a major factor in viability issues, and this reflects our experience of the PPP markets.

The procurement process and competition: The procurement process needs to be transparent, allowing bidders to submit competitive bids. This is not always possible if insufficient numbers of bidders show interest.

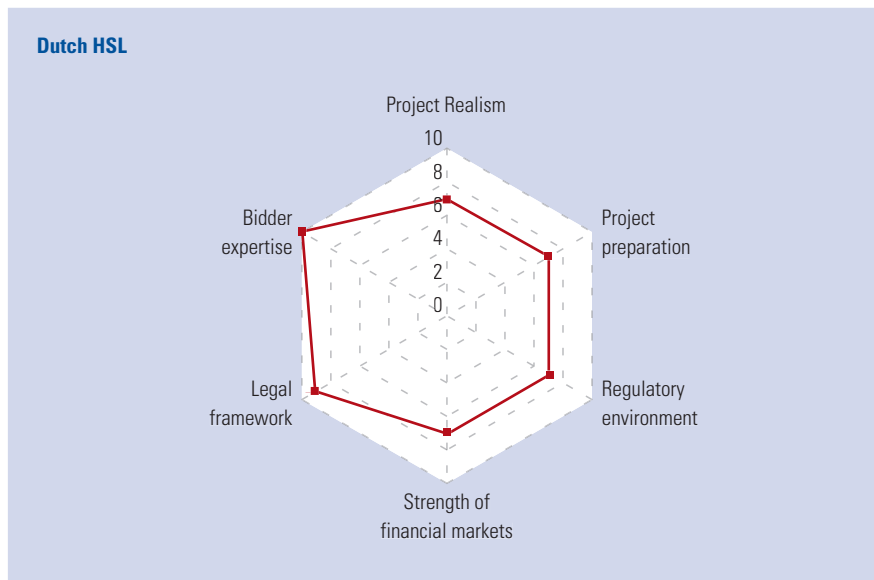
All the projects in our study were procured transparently, but with individual flaws. For instance, on Skye Bridge, there were fewer bids than expected and it was difficult to bring competition to bear at the final stages of the process. This attracted criticism from the state auditor (NAO).

Project definition and clarity of requirements: Projects need to be well defined and specified.

Generally the projects we studied were well defined in physical terms by the time they came to market; and they have delivered the capacity and quality expected. But at least three had changes in financial definitions and requirements during bidding and construction. CTRL had two major restructurings; the Hungarian Government had to increase its support for M5 as did the Scottish Executive for Skye. By contrast, SCUT projects were well defined with standardised procedures and regulations.

Context of project: The context of the infrastructure development needs to be right. It is often better if the project is part of a programme of PPP projects and not a one-off, thus encouraging the private sector to develop the required capacity to submit credible bids and allowing the public sector to develop the procurement skills. Both of these keep costs down. The programme of SCUT projects is a good example of this. By contrast, the Skye Bridge project was one of the first PFI projects in its market. There was no pipeline and no guidance – and mistakes were made, for instance advisers were appointed without competition.

Our conclusion is that all the projects we examined were reasonably well prepared. However, picking up our earlier point, sometimes the project preparation did not reflect sufficient realism.





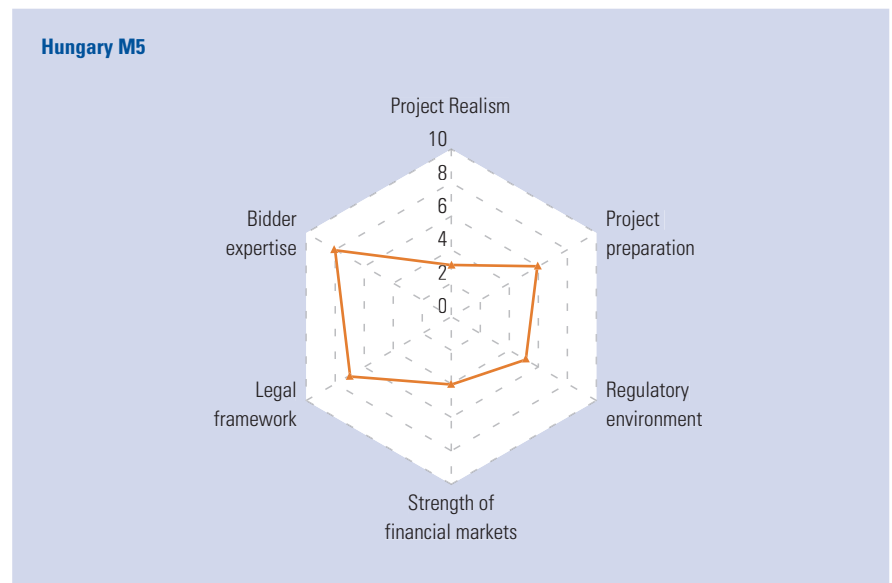
C) Regulatory Environment

Legislative framework for regulation: A country needs to have a strong legal framework to govern how the concession will be regulated. For example, many contracts include the principle of economic equilibrium which provides for the concessionaire to renegotiate the agreement if macro-economic conditions change significantly from the ones envisaged at the time the concession was signed. This provision, which is commonly found in the Latin countries, has the potential to dilute risk transfer. In the UK, although contracts provide for break points (usually every 5-7 years) at which the contract may be reviewed, these are more rigid than the economic equilibrium clause.

Concession legislation: Many countries have found it useful to have specific PPP legislation in place, setting out clear guidelines to govern private sector participation in the provision of infrastructure. Given the scale of the CTRL, specific legislation was introduced in the UK. By the time the M5 project was signed, Hungary had detailed concession legislation but a relatively short history of actual contracts. Similarly, legislation was in place prior to the SCUTs being implemented.

Independent regulation: In the case studies examined regulation was provided through the concession contracts, and the role of an independent regulator was limited. The alternative of independent regulation allows greater flexibility, but may add to the cost of capital.

In conclusion, with the partial exception of the M5, the regulatory environment was not a major factor in financial viability issues for these projects.

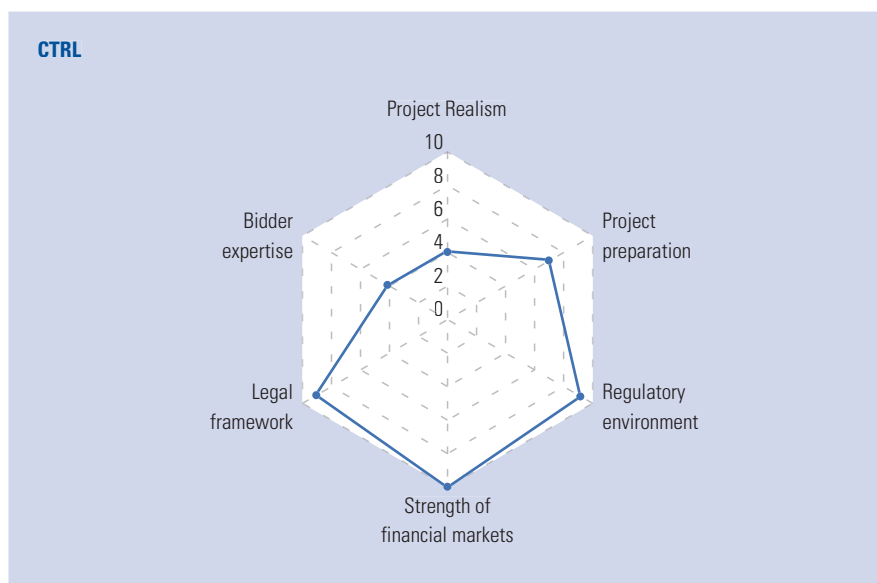


D) Strength of Financial Market

Depth and liquidity of capital markets: There needs to be depth and liquidity in the financial markets to facilitate long-term lending at sustainable interest rates. There are two key issues here: i) the longer the debt term (tenor) that is available to the project contractor, the lower the charges to the user or government; and ii) the ability to borrow in local currency is important as both users' and government's incomes are predominantly in local currency.

None of the projects examined had difficulty accessing finance, once the terms were right, and in some ways the markets displayed a sophisticated approach to project realism by forcing project promoters to revisit their assumptions. For instance on CTRL, they forced a restructuring of risk with more taken by public sector or quasi public sector organisations. For the HSL and the SCUTs, the Dutch and Portuguese Governments, respectively, took steps to make the projects bankable in international markets. The involvement of the EBRD was critical to the M5 in Hungary, but the fact that most of the borrowing was in a foreign currency added to the affordability issues.

Instruments and funding institutions: long-term funding by the private sector of transport infrastructure is dependent on the availability of long-term debt instruments. The more mature PPP concessions have lower margins, longer tenors and more flexible conditions – and more innovation. These reduce financing costs and thus make projects more affordable to either users or governments.



E) Legal Framework

Culture of private sector participation: The argument here is that for private finance to work at affordable rates of return there needs to be a culture of private sector participation to encourage competition amongst qualified bidders. The private sector needs to be confident that its investments will be well protected and that there is a level playing field. This protection can only be provided through sanctity of contract, protection of individual and property rights, and speedy dispute resolution procedures.

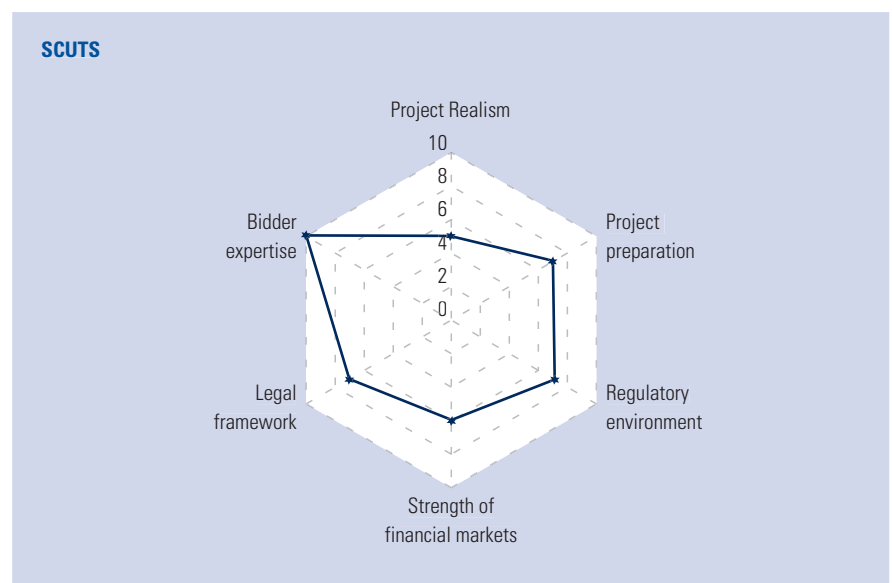
All the countries studied had mixed economies but limited experience of long term contracts for infrastructure provision and maintenance at the time the contracts were signed – especially Hungary.

Procurement laws, property rights and expropriation risks: procurement practices have to be in line with international practice in order to secure private sector confidence. The EU Commission has set procurement rules for use within the EU and many developing countries tend to adopt World Bank rules.

Laws need to be in place to protect property rights; otherwise it will be difficult to attract investors who may wish to secure their investments against project assets.

Investors need protection against expropriation risks. Adequate safeguards need to be in place to dissuade expropriation by the host government and/or regulatory capture.

None of the cases reviewed suggested any problems with these items, probably because of the well developed legal framework.



F) Bidder Expertise

Number of bidders: Competition and value for money are best achieved where there are sufficient bidders on a level playing field. Countries should seek to promote participation from a wide range of international investors. They should not adopt a protectionist approach in order to protect their home market from international competition.

All projects examined showed sufficient bidding interest to ensure some level of competition. CTRL had two shortlisted bidders, Skye Bridge three, and HSL four, later reduced to two. In Portugal, there were experienced Spanish bidders in addition to the domestic players.

Financial Capacity and Technical Expertise: Many markets have yet to develop a market for long-term private sector provision and operation of infrastructure. Bidders must be encouraged to build up the financial standing and technical expertise required to undertake complex PPP projects. And public authorities must acquire and retain expertise in specifying outputs and managing the procurement process. In Portugal and the Netherlands these conditions were met at the time of the studies, and while the Skye project showed lack of expertise it was a very early UK project.

There is a strong relationship between competition and affordability. This was generally understood in our case studies. Our own experience is that single tender negotiations lead to higher prices.

In summary, bidder numbers and experience matter.

Conclusion



This report has looked at the financial viability of PPP concessions and other structures and at the affordability of their charges to users and governments. It has used a standard evaluation framework to score projects and to illustrate points through case studies.

In Section B we examined a number of possible “off budget” funding structures. We put forward a view that many of the structures did not determine the viability and affordability of individual projects. Although specialised agencies, funds and taxes provide a pot of money for transport projects at a national or regional level, a significant proportion of the money is, in most countries, simply diverted to other purposes. Besides, the structure itself could be used to support viable or non viable projects.

Having established that project specifics were key, rather than funding mechanisms, we then concentrated on examples of PPPs/concessions. These bring out issues of tariff levels, expected demand and investment costs better. So in Section C, we looked at project realism, project preparation, regulatory environment, strength of financial markets, legal framework and bidder expertise. Realism overlaps with the others; but is still the most important factor. All of our case studies, except possibly the Dutch HSL, had difficulties caused by this area but they were different in each case. The M5 shows issues related to economic demand, Skye Bridge issues of perceived social inequity and the SCUTs issues of government affordability. We drew attention to the importance of a proper project economic appraisal, including the effect of optimism bias on cost estimates and revenue projections. We considered the role of government grants, the affordability of user charges and the effect of having an alternative route. We also noted the benefits of a transparent procurement process and effective competition. All these affect affordability and financial viability.

Scale and scope do matter but these are not the only determinants of success. Prestige projects such as the CTRL, or large projects for the country such as M5, are prone to realism problems – but smaller projects such as Skye can also be difficult.

Project preparation and bidder expertise are project specific areas and important to managing affordability and viability. Some points were highlighted in the case studies, though these were not critical factors in the ones we chose.

Regulatory environment, strength of financial market and legal framework are the basic prerequisites for success. Without a country being reasonably developed in these areas, it will be difficult to use PPP techniques. Hungary stood out from the other case studies as being less developed in these areas at the time the M5 was signed and this worsened some of the project specific issues on the project.

So how can the questions in the Introduction be answered?

- On user affordability, the case studies raise economic and non-economic points. The M5 shows the importance of a tariff level that is attractive compared to the alternatives; the CTRL shows how the alternatives available to users changed

(with the advent of low cost airlines); the Skye bridge shows the importance of perceptions of social equity. There needs generally to be an alternative route, but it needs to be significantly less attractive.

- On government affordability, the SCUT example shows that governments should consider carefully what the long-term costs might be. The HSL example shows a balance between government and user charges, and a balance between upfront government payments and availability payments spread over time. In addition, there has also been an attempt to judge the right level of risk transfer. The section on funding mechanisms showed that some governments find hypothecation an easier way of raising taxes and transport funds a way of earmarking spending, but also that these approaches are inflexible and do not always resolve the affordability constraints.
- On financial viability, all of the case studies except the HSL have required some form of financial renegotiation. For the SCUTs and Skye, the concessionaire's finances were sound but a rebalancing between government and users was required for affordability reasons. For M5 and CTRL there were serious viability problems, mainly from unrealistic traffic forecasts.

This is a short report in a complex area, and the right approach can vary from project to project. Although, project promoters, procuring authorities and others will need to take appropriate project specific advice as necessary, we have highlighted below some key areas for government action in order to improve affordability and project viability. These include:

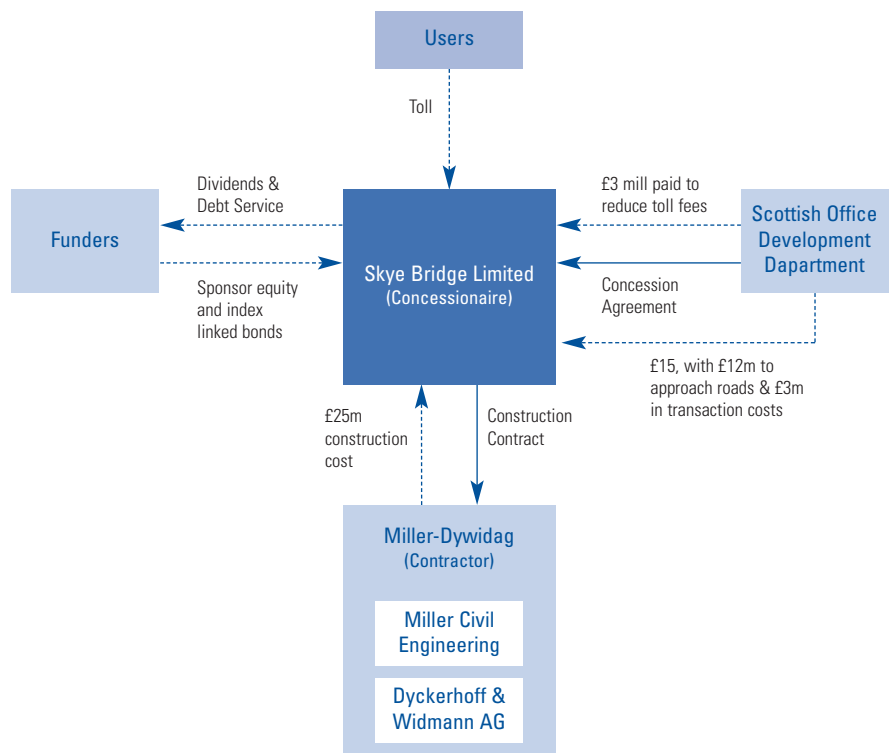
- Providing a credible regulatory and legal environment
- Defining the project clearly
- Getting the level of grant right
- Transferring the optimum level of risk
- Providing credit enhancement where necessary
- Maintaining competitive tension during the procurement process
- Being realistic about costs and revenues
- Building administrative capacity to plan and execute projects
- Developing deep and flexible capital markets
- Nurturing the development of private sector providers of public services

Annex A

Case Study 1: Skye Bridge Project (UK)

Background: The Skye Bridge is a 400m long toll bridge over Loch Alsh, connecting the mainland of Scotland with the Isle of Skye. In 1989, the government requested tenders to construct the toll bridge, with the contract being awarded to Miller-Dywidag, the joint venture between Miller Civil Engineering, Edinburgh and Dyckerhoff & Widmann AG of Munich.

The Skye Bridge project was one of the earliest examples of an infrastructure project carried out under the Private Finance Initiative (“PFI”), the contracts for which were signed by the Scottish Office Development Department (“the Department”) in December 1991.



Project Realism

Costs: The bridge was opened to users in 1995 and cost approximately £25 million to build. In addition to the £25 million, the Department spent £15 million, of which £12 million went to approach roads and design modifications, and £3 million to negotiating the deal.

Expected Revenues: Revenues on the Bridge were higher than expected. Despite the political opposition, usage has been exceptional. Initially, project costs were estimated to be recovered over 20 years but based on the amount of revenue generated this period was revised to 17 years. However, in the end, the Scottish Executive's decision to buy-out the bridge operator has meant that investors were able to exit 4 years earlier than planned, boosting their rate of return.

Availability of Government Support: The Scottish Executive provided direct government grants in the region of 12.5% of total revenues in order to subsidise user fees. Furthermore, overall project costs were reduced because the government spent significant amounts on land purchase, construction of approach roads etc

Level of Toll/User Charges: This project generated significant protests, based on ideologically driven opposition, despite tolls being kept affordable (they were not higher in real terms than the ferry fares). Residents felt that they were treated unfairly because the direct ferries had been discontinued and there was no alternative means for drivers to reach the island. As a result, discounts were introduced in 1999 for residents of Skye before the tolls were eventually scrapped in 2004.

The bridge and toll protest became a continuing political issue, resulting in the Scottish Enterprise Minister finally deciding to abolish tolls and buy-out the shareholders. Finally, in December 2004 the bridge was sold to the Scottish Executive for £27 million following which toll collection immediately ceased. During the preceding decade, £33 million in tolls had been collected from users.

Existence of Competing/Alternative Routes: the alternative route provided by the parallel ferry service was abolished once the bridge was opened. This was a key condition demanded by the financiers.



Project Preparation

Technical Studies: The evidence suggests that there was a significant amount of preparation undertaken on this project. Unlike many toll road projects, traffic on the Skye bridge was higher than projected.

Planning: The government retained planning risk. This was demonstrated by the fact that following objections to the preferred design on environmental and aesthetic grounds, the government agreed to pay the operator an additional £4m to cover costs arising from the delay caused by the need for a public inquiry and from the recommended changes that resulted.

Project Promotion to Stakeholders: The project was widely promoted to stakeholders. Despite a local public inquiry recommending acceptance of the basic design of the project, subject to some changes that the National Trust for Scotland and the Countryside Commission for Scotland had proposed, opposition remained in some quarters.

Project Complexity and Innovation: This was not a particularly technically complex or innovative project.

Procurement Process and Competition: The procurement process was transparent, although with some flaws. Despite efforts to encourage bidding, the Department got fewer bids than expected. The Public Accounts Committee observed that given the fact that only one acceptable bidder emerged from the competition, the Department could have made a systematic comparison of the costs and benefits of the proposed deal with alternative options such as a Public Sector Comparator.

Areas where procedures could have been better implemented included the appointment of advisers and the requirement for full access to the bidders' financial models to strengthen the assessment and negotiation of bidders' proposals.

Project Definition and Clarity of Requirements: The Skye bridge achieved its primary objective which was the provision of a privately financed tolled crossing to Skye. Compared to the former ferry crossing, the bridge brought a number of benefits to users including shorter journey times and more reliable service in bad weather. In this sense the project definition was very clear and unambiguous and achievement was not difficult to measure.

Context of Project: This project was one of the first PFI projects in the market, at a time when the government's pipeline of future projects had not been clearly articulated and there was very little official guidance. As a result, the Skye experience provided lessons that have contributed to the efficient procurement of later PFI projects in the UK.

Legal and Regulatory Framework

Scotland has a well established legal and regulatory framework.

Unlike the rail sector in the UK, where regulation is undertaken by an independent regulator, on this project, regulation has been effected mainly through the concession contract. And the rigour of this regulation has improved over time. For instance, Skye bridge, being one of the first PFI projects to be signed in the UK did not benefit from some of the regulatory provisions contained in today's contracts that seek to limit the private sector's profits to a reasonable level. Relevant clauses in these contracts include, profit share, benchmarking, price caps, and rate of return targets.

Strength of Financial Market

Although the UK capital market is one of the most liquid in the world, there were initial problems securing funding in the Skye bridge project because the market for funding long-term infrastructure projects was still in its infancy in the UK. The project was eventually financed through a combination of sponsor equity and index linked bonds. However, the funding options in the market were limited compared with the current day situation: for instance, there was only one provider of index-linked bonds at the time.

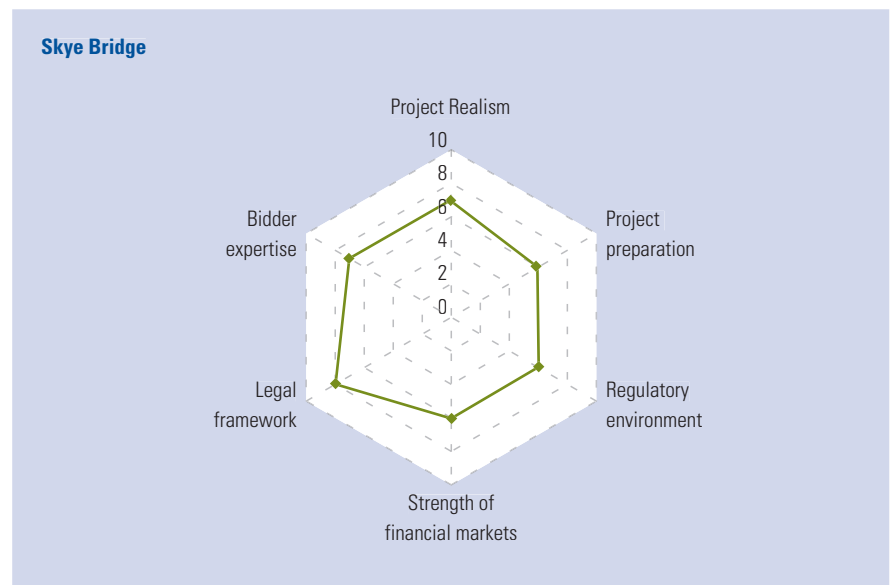
Bidder Expertise

There was a limited amount of toll road financing and operating expertise in the UK market at the time the Skye bridge project was launched. The local contracting expertise of Miller Civil Engineering was augmented by technical expertise of Dyckerhoff & Widmann AG of Munich and the financial know-how of Bank of America. Only two credible bidders were short-listed and of these, one bid was capable of acceptance. As a result, the Department was unable to take full advantage of competitive tension. Consequently, the estimated costs rose rather than fell during the period of exclusive negotiations with the winning bidder.

Overall Verdict on Financial Viability and Affordability

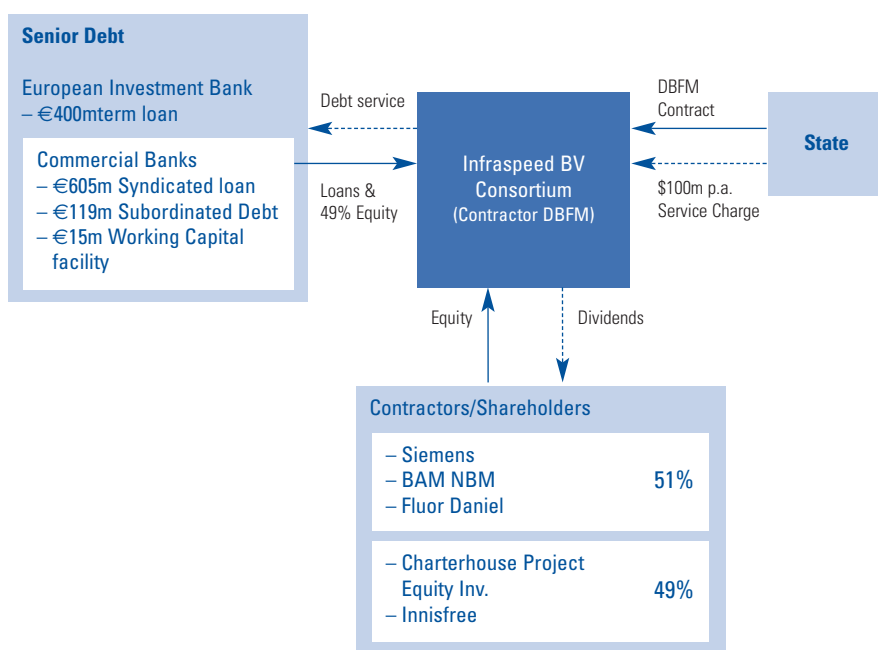
This project was clearly financially viable from the perspective of investors. In fact the Public Accounts Committee noted that the 18.4% real return on equity appeared generous compared with later PPP/PFI concessions. In the end, the buy-out by the Scottish Executive improved the rate of return to investors even further.

Despite the political protests, most users of the bridge (especially the tourists) found the bridge tolls affordable. Locals were hit hardest by any price increases - although originally cheaper than the ferry it replaced, the bridge's tolls subsequently increased, and were said to be the amongst the highest in Europe. As a result, discounts and price caps were introduced in order to protect locals. Despite the protests, usage of the bridge was exceptional before tolls were eventually abolished for political reasons.



Case Study 2: The Dutch High-Speed Line (“HSL”)

Background: The Dutch HSL Zuid is a 100km high-speed rail link between Antwerpen in Belgium and Amsterdam in the Netherlands. The line is being financed through a public private partnership (“PPP”) scheme led by the Infrasppeed BV Consortium (“the Consortium”), which comprises Siemens, BAM NBM, Fluor Daniel and the institutional investment companies Charterhouse Project Equity Investment and Innisfree.



Costs: The total construction cost for HSL-Zuid is estimated at around €1.2 billion. The concession is for a period of 30 years, of which the first 5 will involve construction. The HSL reached financial close in November 2001.

Expected Revenues: The contract with the consortium is a DBFM (“Design, Build, Finance and Maintain”) contract which will see the State pay the consortium an annual availability fee of approximately \$100 million for the use of the rail infrastructure.

The standard that must be achieved for the full fee to be paid is 99% availability. Anything less would result in the state deducting penalties. By linking the level of remuneration to contract performance, only good performance would allow the Infrasppeed to pay back the pre-financed investment and make a sound profit.



Availability of Government Support: The Dutch government supported the project by funding the civil engineering works through DB (Design Build) contracts which required no long-term finance.

Level of Toll/User Charges: The Dutch government did not transfer demand risk to the concessionaire. HSL revenues will be based on availability payments to be paid by government.

Existence of Competing/Alternative Routes: The HSL will have competition from low cost airlines, road transport and existing (slower) rail routes.

Project Preparation

Technical Studies: The evidence suggests that detailed technical studies were undertaken for this project. This said, more work could have been done. Cost overruns of €562 million above budget were reported during the period covering 1 January 2004 to 1 July 2004.

Planning: No planning issues were identified. The Dutch government retained planning risk.

Project Promotion to Stakeholders: The project was well promoted to stakeholders and there was broad acceptance by members of Parliament. However, there was significant opposition from the municipalities along the route.

Project Complexity and Innovation: This was a technically complex project involving advanced rail technology.

Procurement Process and Competition: The procurement process was well conducted and transparent, attracting significant interest from well established players in the rail industry. The Dutch government spent several years structuring the HSL deal. The bidding process was launched following an intensive consultation period involving more than 130 firms. The competitive tender process, which was conducted in both Dutch and English, lasted two years.

The Public Sector Comparator (PSC) predicted that the Dutch government will spend approximately 5% less on the project under PPP procurement than it would have under conventional procurement.

Project Definition and Clarity of Requirements: The project was well defined with clear requirements although complications have arisen as a result of the numerous contractor interfaces occasioned by the separation of the Civil Engineering (sub-structure) contract from the rail infrastructure (superstructure) contract.

Context of Project: This was the first rail PPP project signed in the Netherlands.

Legal and Regulatory Environment

The Netherlands has a well established legal and regulatory framework.

There is no independent regulator. The contract is regulated through the contractual provisions in the concession agreement.

Strength of Financial Markets

The project had access to deep financial markets via local and international banks operating in the Netherlands and also out of financial centres such as London. The deal structure comprised a €1.1 billion project finance package involving an array of international banks. In addition, Deutsche Bank acted as advisers to Infrasppeed.

With regard to the capital structure, a broad range of financial instruments were available. The total debt package includes a €605 million syndicated loan, a €119 million subordinated debt bridge facility, a €15 million working capital facility and a term loan of €400 million from the European Investment Bank (EIB). Equity was provided by the project sponsors (contractors) an institutional investor (Charterhouse).

Bidder Expertise

There is some experience of PPP projects in the Netherlands but many of the participants in the HSL project also had extensive experience from the UK and elsewhere. This international participation contributed to the relatively smooth progress of the transaction.

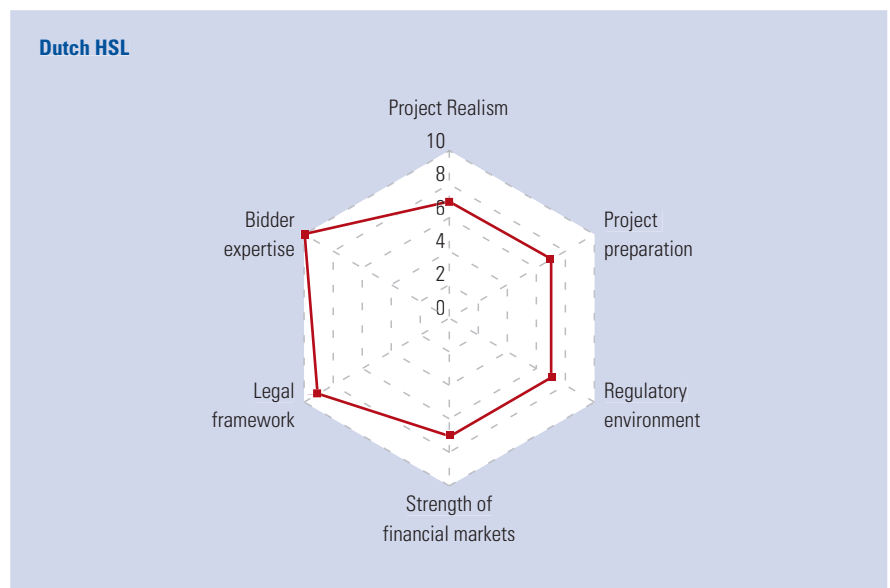
The project attracted bids from well established names in the rail and banking industries who understood the operational and systems procurement risks that the concessionaire was being called upon to bear.

Overall Verdict on Financial Viability and Affordability

It is premature to determine whether, in reality, this project will be financially viable or affordable because service delivery does not commence until 1 October 2006. However, the project secured funding on the basis of a financially viable business case.

Affordability: The fact that the concessionaire's revenues will be derived from availability payments made by government provides additional comfort since the Dutch government enjoys a strong credit rating. It is expected that the Dutch government will make adequate budgetary provision to meet its obligations under the contract.

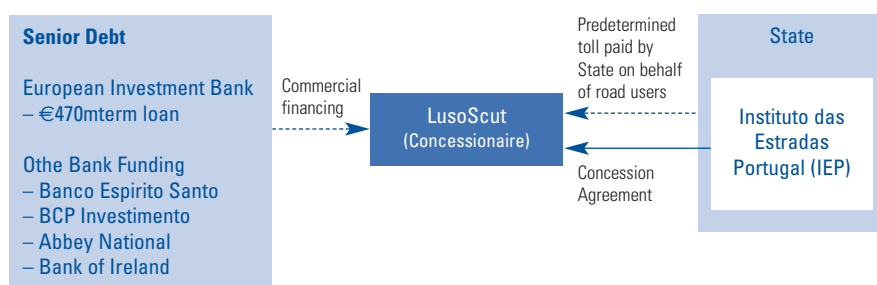
Financial Viability: The due diligence undertaken by the banks would have focused on ensuring that the project generates sufficient revenues to cover operating costs and meet debt service requirements. The reality will depend on how well the contract is managed by the contracting authority (keeping changes to a minimum) and how efficient the concessionaire is at providing the service and keeping construction and operating costs as low as possible.



Case Study 3: Portuguese SCUT

Background: Historically, Portugal's road concessions have been very successful and are regarded as an example for other European States. At the end of 1995 there were 972km of motorways in use in Portugal. Just five years later, this increased by 53% to 1,488km, of which 808km were built by BRISA, the main motorways concessionaire in Portugal and 680km by the State.

Typical SCUT



Costs: In 1997, a DBFO road programme to develop approximately 1 500km of motorway, was initiated. The SCUT Road programme, as it was named, was divided into 16 different projects (7 SCUTs, 9 Real Tolls) to be awarded by public tender. The total value of the 16 projects is estimated to be over €8 billion.

Expected Revenues: A "shadow toll" road, known as a SCUT in Portugal, is one in which the tolls are paid by the State instead of the road users, based on a predetermined amount per vehicle. Applying a shadow toll approach provides the concessionaire with a high degree of revenue certainty. In the case of the SCUT Road Programme, the Band 1 revenues are 95% certain of being achieved, and this constitutes approx. 60% of total revenues.

Availability of Government Support: The high certainty of revenues resulting from the shadow-toll based payment mechanism, constitutes a form of credit enhancement provided by the government to the project.

Level of Toll/User Charges: Shadow tolls have affordability implications for government. The SCUT roads provide a good illustration of how governments can 'silt up' their budgets by signing too many shadow toll roads, thus reducing their future fiscal flexibility. Shadow tolls have proved unsustainable for the Portuguese budget with Portugal facing a SCUT operator bill of around €650 million for the period 2004 to 2007 - from 2007, SCUT payments will absorb the entire IEP road budget.

As a result, the government has considered converting these to real tolls in order to address budgetary constraints. No more shadow tolls are likely to be built in Portugal.



Existence of Competing/Alternative Routes: There were no alternative competing routes to the SCUTs. It was the government's policy that in order to preserve social equity real tolls would only be applied on a roads for which there were competing/alternative free routes. Accordingly, the shadow toll approach was restricted to concessions with no economic and financial feasibility on the basis of affordable tariffs paid directly by users.

Project Preparation

Technical Studies: Although detailed technical studies were undertaken in preparing the SCUTs. However more work should have been undertaken to ensure that the government had adequate safeguards in place to identify its affordability constraints before the contracts were signed.

Planning: No planning issues were identified.

Project Promotion to Stakeholders: The SCUTs were widely promoted in Portugal and there was initial significant support for the projects. However since commencement of operations and the realisation that shadow tolls have become unsustainable, there has been continuing debate amongst the political parties as to whether to switch to real tolls.

Project complexity and innovation: These roads were not technically complex.

Procurement Process and Competition: In the SCUT programme, each concession is subject to a competitive tender process, the bids for which are open to public scrutiny. This is followed by negotiations between the bidders and the awarding entity, in this case the Instituto das Estradas Portugal (IEP), which will ultimately select two bidders to present a best and final offer (BAFO).

Project Definition and Clarity of Requirements: Several of the SCUTs have been completed in record time and are in successful operation, suggesting that the projects were properly defined with clearly identified requirements.

Context of Project: The SCUTs were amongst the first PPP projects to be signed in Portugal. These projects however formed part of a larger programme of PPP projects.

Legal and Regulatory Environment

Portugal has a well established legal and regulatory framework. The contract is regulated through the provisions in the concession agreement.

Strength of Financial Market

The project had access to deep financial markets via local and international banks operating in the Portugal and Spain and also out of financial centres such as London.

LusoScut, a consortium of mostly Portuguese and Spanish contractors and equity providers, won the DBFO contract and raised €1.2 billion for a 165km motorway known as the SCUT IP5 – the largest ever shadow toll road project.

Part of the financing, a €470 million loan, was provided by the EIB. Other participants Banco Espirito Santo, BCP Investimento, Abbey National and the Bank of Ireland.

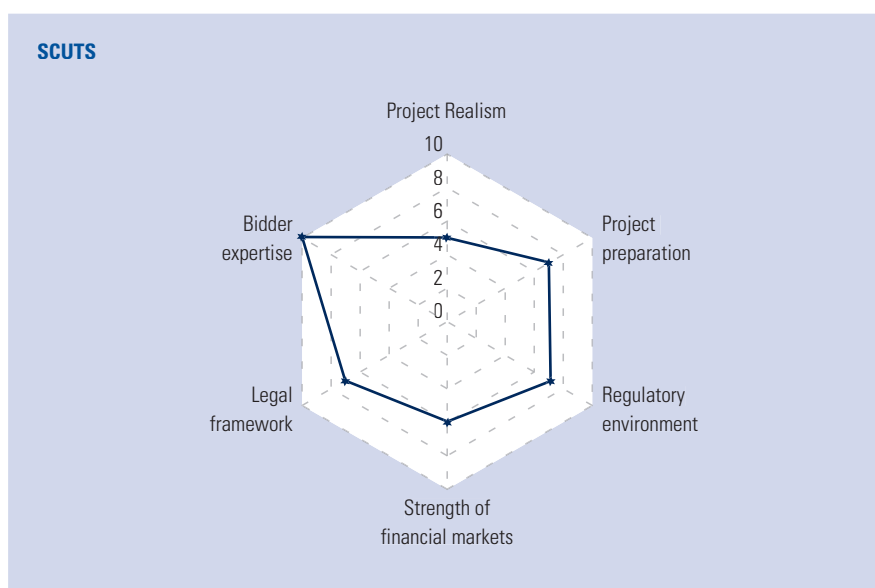
Bidder Expertise

The Portuguese market had a number of national and international players bidding for road contracts at the time the SCUT projects were launched although PPP in Portugal was in its infancy. In addition, Spanish contractors, with their long history of running concessions in Spain were able to provide the required depth in the Market.

Overall Verdict on Financial Viability and Affordability

Affordability: Although the SCUT programme has been seen as a successful way of delivering new motorways in record time, the Portuguese government is unable to afford it. The absence of safeguards to prevent government from ‘silting up’ its future budgets has been a significant weakness of the programme. This is a lesson for other OECD countries contemplating ambitious motorway concessions.

Financial Viability: For the private sector concessionaire, the SCUTs have been financially viable and the certainty of revenues provided by the shadow toll structure has made it easy to attract financing.

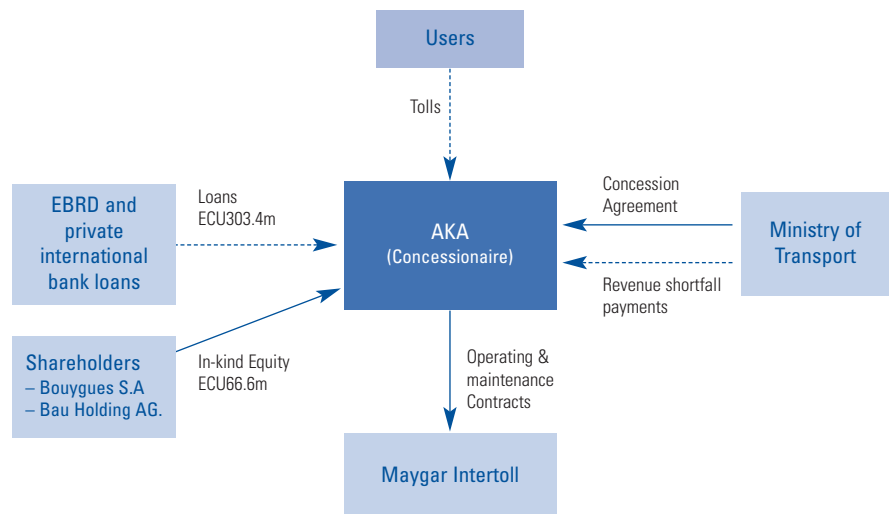


Case Study 4: M5 Motorway

Background: The M5 Motorway, which runs southward from Budapest to the State border, forms part of the main international trade corridor linking Western Europe to the Balkan and Black Sea region. It is part of the UN-ECE promoted Trans-European North-South Motorway (TENs) Project and lies in the Pan-European Transport Corridor No. IV (Berlin – Praha – Bratislava – Budapest – Bucharest – Thessaloniki – Istanbul).

An international tender was launched in 1992 to finance, build and operate the motorway. In February 1994, a French-Austrian-Hungarian consortium lead by Bouygues and Bau Holding won the tender. The special purpose company created to finance Phase 1 of the concession, of which Bouygues and Bau Holdings are a major shareholder, was known as Alfold Koncessziós Autópalya (AKA).

The PPP structure of the M5 tolled motorway was as follows:



In terms of the concession contract, the concessionaire has to return the motorway to the State after 35 years in good working condition. The contract further defined the initial toll rates and tariff structure, as well as a price escalation formula.

Costs: The cost of Phase 1 was ECU 370 million (HUF 70,800 million), of which construction comprised 68.3%, concession company costs 12.7% and capitalised interest 19%. M5 was one of the largest projects in Hungary when it was brought to market. With approx ECU 303m in debt financing over a 14 year period, this represented the highest amount and longest tenor debt that had ever been raised for infrastructure debt in Hungary.

Expected Revenues: The project did not generate sufficient revenues to meet its debt service requirements and had to be restructured. These financial difficulties arose because traffic projections were over-optimistic.

Availability of Government Support: The Hungarian government provided a revenue shortfall facility - in the form of subordinated loan to the operator (AKA) - for the first six and half years of operations, in the event that the AKA's actual revenues were below the base case projects. This facility was instrumental in preventing the AKA from defaulting on its debt service obligations when revenues turned out to be lower than expected.

Although AKA, together with the debt providers, bore the bulk of the commercial, operational and financial risks, the estimated governmental contributions exceeded one third of total project costs. The governmental contribution was expected to be reimbursed through a profit sharing scheme, in terms of which nearly one third of any dividend distributions during the second half of the concession period were to be paid to the Road Fund.

Level of Tolls/User Charges: At HUF 5.00 per km for cars and approx HUF 20 per km for Heavy Goods Vehicles (1993 prices), M5 tolls were expensive by Hungarian standards and did not reflect the purchasing power of the average Hungarian.

Existence of Competing/Alternative Routes: The high cost of the tolls resulted in many locals preferring to use the longer distance alternative routes. Local residents along the No. 50 main road, parallel to the M5, complained about the environmental nuisance and safety hazards caused by the increased traffic diversion from the motorway.

Following a proactive marketing campaign by AKA and traffic calming measures implemented by government on competing routes, the need for the shortfall facility reduced significantly.

Project Preparation

Technical Studies: None of the studies undertaken accurately predicted the expected traffic volumes.

Project Promotion to Stakeholders: Although there was vociferous local opposition to the M5 tolls (some users brought legal cases against AKA concerning toll rates but the courts rejected these complaints), the project was generally considered necessary since it formed part of the Trans-European transport network.

Project Complexity and Innovation: This was not a particularly technically complex or innovative project.



Procurement Process and Competition: This process appeared transparent and fair, but there was dissatisfaction in some quarters with regard to bidder pre-qualification, and changes to the tender conditions during the procurement process. These factors were thought to have limited real competition.

In addition, the procurement process was delayed due to financial viability issues identified in an independent traffic study requested by the banks. Finally, following a governmental decision to increase and guarantee the standby operational subsidy provided by the Road Fund, together with financial and legal fine tuning, financial close was achieved in December 1995 (pre-qualification documents were issued in April 1995). Construction started in May 1996.

Context of Project: This project was the second road PPP concession in Hungary after the unsuccessful M1/M15 concession which had to be taken into public sector ownership to avoid financial collapse. On the M5, the Hungarian government sought to avoid one of the key mistakes of M1/M15 by providing a revenue shortfall guarantee as a way of improving the projects financial viability.

Legal and Regulatory Environment

By the time the M5 project was signed, Hungary had detailed concession legislation but relatively short history of regulating concession contracts and contractual dispute resolution involving long-term lending by banks. For these reasons, the legal and regulatory environment was relatively weak.

Strength of Financial Markets

Due to the under-developed capital markets in the years following communism, participation by the European Bank for Re-construction and Development was crucial to attracting commercial banks such as Commerzbank and ING.

Bidder Expertise

Construction of Phase 1 was completed on schedule and within budget, but as discussed earlier, the project experienced financial difficulties because traffic projections were over-optimistic.

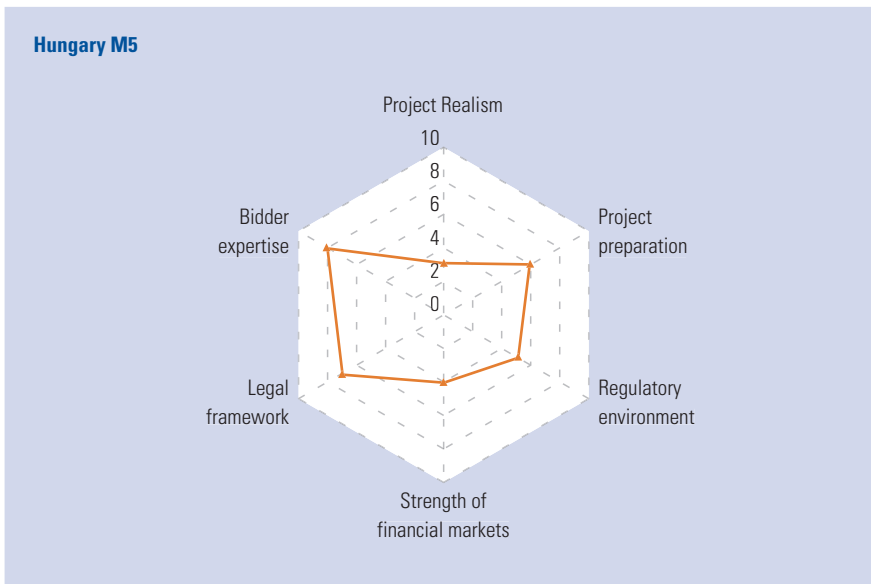
Overall Verdict on Financial Viability and Affordability

The M5 was not affordable for most local users, neither was it financially viable for the concessionaire (without government support via the revenue shortfall facility).

In 2004, the State took a decision to buy 40% of the shares of AKA in order to make the M5 part of the national motorway sticker system. Under the terms of the agreement, real tolls were abolished and the State paid a standby fee of

€56.7 million annually based on the availability of the motorway. The State is also expected provide partial compensation for any lost motorway toll revenue.

This action by the Hungarian government has improved the affordability and financial viability of the M5.

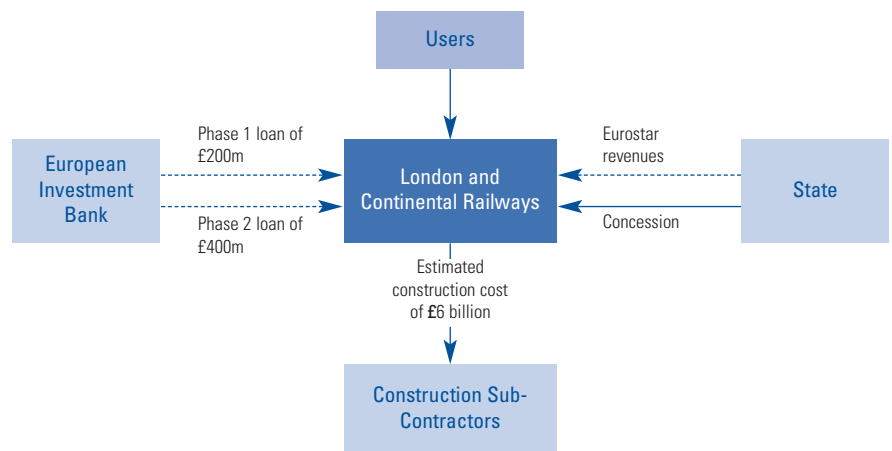


Case Study 5: Channel Tunnel Rail Link (CTRL)

Background: The CTRL is a 108km twin track high-speed passenger and freight line between St Pancras Station, London and the Channel Tunnel. CTRL will have the capacity to carry up to between 40-45 million passengers a year, and will transport passengers between London and Paris in just over two hours.

The project is one of 14 TransEuropean Network projects, providing an important link in the Paris- Brussels- Cologne- Amsterdam-London rail projects, and will help provide the necessary capacity to promote the use of rail between the continent and the UK.

A competitive tender was launched in 1993 and won by London and Continental Railways (LCR). The project involves the construction and operation of the rail link, and the transfer of two government owned companies to LCR, namely European Passenger Services Ltd (EPSL), which together with SNCB and SNCF operates the passenger service in the Channel Tunnel, and Union Railways Ltd (URL), whose task it has been to conceive the CTRL project.



Costs: The link is expected to take an estimated 9 years to construct at a cost of more than £6.0 billion. Section 1 was completed and opened on time and within budget and section 2 is nearing completion.

Expected Revenues: The main source of income to recover this investment is Eurostar UK revenues. Revenue forecasts were wildly optimistic. The numbers of passengers using the high speed train services between London and Paris and London and Brussels are about half the number predicted when the project was in the planning stages.

Availability of Government Support: The revenue shortfall meant that LCR was unable to raise funding for the project. As a result, on 3 June 1998, the government agreed to guarantee up to £3.75 billion of debt to be issued by LCR, with a maximum of £2.65 billion for Stage 1 and a further maximum of £1.1 billion for Stage 2.

Level of Toll/User Charges and Alternative Routes: Eurostar has encountered competition from low-cost airlines competing on cost, but also offering more choice of destinations and to a lesser extent, with ferries travelling the cross-Channel route. This has restricted Eurostar's ability to increase fares.

Project Preparation

Technical Studies: Several technical studies were commissioned that demonstrated that growth of rail services in south England would be constrained if no new rail infrastructure was provided through Kent. Over five possible routes were considered but the consulting engineers (Ove Arup & Partners) noted some shortcomings in the five possible routes and in March 1990 developed an alternative route for the rail link which had several technical advantages over the others.

Planning: Planning risk was shared between LCR and government.

Project Promotion to Stakeholders: The Government consulted the public before introducing the legislation to provide the consortium with the planning permissions and other powers that it needed to construct the project. The private sector was also involved to a large extent in developing a suitable route for CTRL.

Project Complexity and Innovation: CTRL is one of the most complex and innovative projects in British engineering history.

Procurement Process and Competition: The procurement process was transparent and followed internationally accepted procurement practice. In December 1998 British Rail invited six private sector consortia of engineering and transport companies to submit proposals for designing and building the rail link. One of these bidders LCR, was eventually appointed preferred bidder based on the quality of its proposal.



Project Definition and Clarity of Requirements: The project was not well defined. It was originally envisaged that the concessionaire would Design, Build, Finance and Operate (DBFO) the CTRL for 99 years. However, during the development of the project the concession was renegotiated to Design, Build and Finance (DBF); the option of selling it to Network Rail, the UK national rail infrastructure company, was also considered.

Context of Project: The CTRL was one of the first PPP projects in the UK at the time the first deal was struck. However, by the time it was restructured several other PPP projects had been signed and many lessons had been learnt which informed the re-structuring.

Legal and Regulatory Framework

England has a well established legal and regulatory framework. The regulatory overview of CTRL still falls within the ambit of the UK's independent rail regulator.

Strength of Financial Market

The UK has a well established capital market capable of developing very innovative financing structures. The project was initially to be financed through promoter's equity, government grants, revenues from Eurostar train services, development rights over land at Kings Cross Station and loans from banks and other financial institutions. Following project restructuring in 1998 a substantial part of the financing was provided through bonds backed by government guarantees.

Bidder Expertise

Although the UK market has access to some of the most experienced bidders and financiers for rail projects in Europe, the financial projections upon which the initial funding was based were woefully inadequate. The effect of competition from airlines and ferries was grossly under-estimated. As a result, government had no alternative but to step-in to rescue the project.

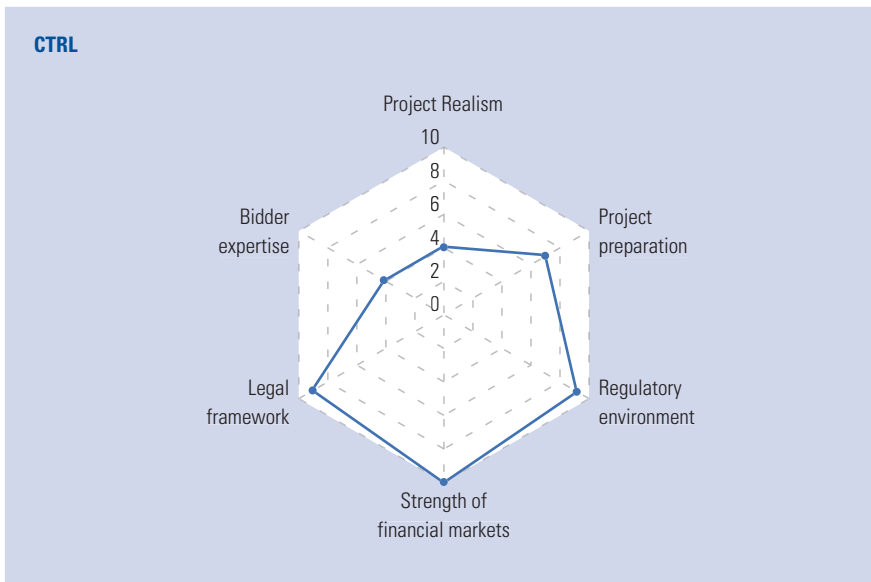
Overall Verdict on Financial Viability and Affordability

It is premature to determine whether, in reality, this project will be financially viable or affordable since service is not expected to commence until 2007.

Affordability: This should not be an issue. The concessionaire's income will be derived from Eurostar revenues. Users are already familiar with Eurostar prices, which are very competitive as a result of pressure from the low cost airlines and cross channel ferries.

Financial Viability: The financial re-structuring undertaken by the banks 1998, based on revised (more realistic revenue estimates) and the debt guarantees provided by government has improved the project's chances of being financially viable because it provides additional comfort to project lenders and reduces the cost of debt.

The outcome will ultimately depend on how well the contract is managed by LCR including how efficient it is at providing the service and keeping construction and operating costs as low as possible.



Annex B Project Evaluation Charts

Criteria	Weighting factor	Projects					Explanation of the criterion	Explanation of scoring 10=excellent; 1=poor
		Skye Bridge	Dutch High Speed Rail	Hungary M5	CTRL	Portuguese Scut		
Project Realism								
Costs		7	5	1	4	3	Examine costs relative to other large scale infrastructure projects in the same country at the time.	Score 10 if costs are NOT exceptional; score 1 if costs are high compared to other public sector projects at the time.
Expected Revenues		9	5	2	1	7	Examine certainty of traffic forecasts and projected revenues.	Score 10 if revenues are certain and ensure cost recovery; Score 1 if expected revenues are very low and uncertain.
Government grant		3	10	7	7	2	Examine level of government grant relative to user fees.	Score 10 if government grant exceeds 50% of revenues.
Toll/user charges		5	10	1	8	10	Examine price of tolls relative to local purchasing power?	10 for realistic pricing that most users will find affordable. 1 for unrealistic pricing.
Availability of competing routes/modes of transport		8	1	1	4	8	Examining the availability of competing routes/modes of transport.	10 if there is no competition from any other routes or transport modes; 1 if there is direct competition along the same route.
Sub total		7	6	3	4	5		
Project Preparation								
Technical studies		9	8	10	8	4	Examine whether a technical feasibility study undertaken prior to project commencement?	10 for detail feasibility study; 1 for no feasibility study.
Planning		4	10	5	6	5	Examine the extent to which government accepted planning risk.	10 if government accepted most of the planning risk; 1 if planning risk was transferred to the private sector.
Project promotion to stakeholders		2	4	6	8	5	Examine the extent to which a project was promoted to stakeholders such as unions, landowners, general public/consumers etc?	10 if the project was widely accepted as essential; 1 if there was significant opposition from all quarters.
Project complexity and innovation		7	4	8	9	8	Examine whether the project was technically complex and/or innovative.	Score 10 if the project was technically complex and/or innovative and 1 if the project was simple.
Procurement process and competition		7	7	3	7	8	Examine whether the procurement process was transparent, allowing bidders to submit competitive bids.	10 if the process was transparent; 1 if the process was opaque.
Project definition and clarity of requirements		8	10	5	4	7	Examine whether the project was well defined. Was the public sector clear about what it wanted to buy?	10 if the project was well defined; 1 if the project was not well defined and government frequently changed its requirements.
Context of project		2	1	1	5	10	Determine whether the project was a 'one off' or part of a programme of privately financed infrastructure projects?	10 if project was part of a structured PPP/PFI programme with a clearly identifiable pipeline of repeat projects.
Sub total		6	7	6	7	7		

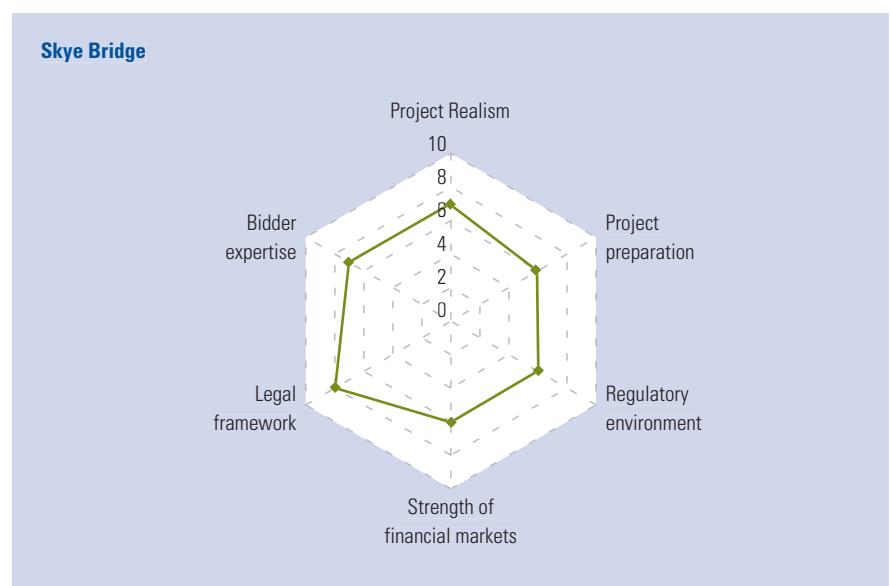
Criteria	Weighting factor	Projects					Explanation of the criterion	Explanation of scoring 10=excellent; 1=poor
		Skye Bridge	Dutch High Speed Rail	Hungary M5	CTRL	Portuguese Scut		
Regulatory environment								
Legislative framework		10	8	7	10	9	Determine whether the country has a strong legal framework? Are contracts easily enforceable?	10 if contracts are easily enforceable. 1 if there is no sanctity of contract.
Concession agreements		2	6	5	8	5	Examine whether the country has concession legislation in place? Was there a history of project concessions?	10 if the country had a long history of signing concession contracts.
Independent regulation		5	7	2	8	5	Examine the strength of the regulatory regime? Does the country have a strong independent regulator?	10 if there was a strong regulatory process in place when the project was signed.
Sub total		6	7	5	9	7		
Strength of financial market								
Deep and liquid capital market		5	7	3	10	5	Examine the depth and liquidity of the country's capital markets.	10 for London, NY, Frankfurt and Tokyo; 1 for countries with relatively 'young' stock market.
Instruments and Funding institutions		6	7	5	10	7	Determine whether there was a variety of funding institutions offering a number of funding instruments.	10 for the availability of different funding options including sponsor equity, long-term debt, equity funds etc; 1 for limited financing options.
Sub total		6	7	4	10	6		
Legal framework								
Culture of private sector participation		4	5	1	7	4	Determine whether there was a history of contractualising the provision of private sector services?	10 if there were numerous existing precedents for the private sector provision of public services; 1 if there were no precedents.
Procurement laws		6	10	7	7	7	Examine whether international procurement practice was followed.	10 if recognised good international procurement practice was followed; 1 if good practice was not followed.
Property rights		9	10	10	10	8	Examine whether the law contained safeguards for property rights?	10 if there existed an established recognition of property rights under the law; 1 if property rights were not recognised.
Expropriation risks		10	10	10	10	9	Examine whether there were high risks of expropriation.	10 for no risks; 1 for high risks.
Sub total		8	9	7	9	7		
Bidder expertise								
No. of bidders		7	9	5	4	10	Determine how many credible bidders were shortlisted to tender?	10 for three bidders or above; 1 for one or no credible bidders.
Financial capacity and technical expertise in the sector		6	10	10	4	9	Examine whether the right bidders were selected. Did they have sufficient experience of the sector?	10 for experienced and well capitalised bidders; 1 for inexperienced bidders.
Sub total		7	10	8	4	10		

Skye Bridge

Criteria	Project	Explanation of the criterion	Explanation of scoring 10=excellent; 1=poor
	Skye Bridge		
Project Realism			
Costs	7	Examine costs relative to other large scale infrastructure projects in the same country at the time.	Score 10 if costs are NOT exceptional; score 1 if costs are high compared to other public sector projects at the time.
Expected Revenues	9	Examine certainty of traffic forecasts and projected revenues.	Score 10 if revenues are certain and ensure cost recovery; Score 1 if expected revenues are very low and uncertain.
Government grant	3	Examine level of government grant relative to user fees.	Score 10 if government grant exceeds 50% of revenues.
Toll/user charges	5	Examine price of tolls relative to local purchasing power?	10 for realistic pricing that most users will find affordable. 1 for unrealistic pricing.
Availability of competing routes/modes of transport	8	Examining the availability of competing routes/modes of transport.	10 if there is no competition from any other routes or transport modes; 1 if there is direct competition along the same route.
Sub total	7		
Project Preparation			
Technical studies	9	Examine whether a technical feasibility study undertaken prior to project commencement?	10 for detail feasibility study; 1 for no feasibility study.
Planning	4	Examine the extent to which government accepted planning risk.	10 if government accepted most of the planning risk; 1 if planning risk was transferred to the private sector.
Project promotion to stakeholders	2	Examine the extent to which a project was promoted to stakeholders such as unions, landowners, general public/consumers etc?	10 if the project was widely accepted as essential; 1 if there was significant opposition from all quarters.
Project complexity and innovation	7	Examine whether the project was technically complex and/or innovative.	Score 1 if the project was technically complex and/or innovative and 10 if the project was simple.
Procurement process and competition	7	Examine whether the procurement process was transparent, allowing bidders to submit competitive bids.	10 if the process was transparent; 1 if the process was opaque.
Project definition and clarity of requirements	8	Examine whether the project was well defined. Was the public sector clear about what it wanted to buy?	10 if the project was well defined; 1 if the project was not well defined and government frequently changed its requirements.
Context of project	2	Determine whether the project was a 'one off' or part of a programme of privately financed infrastructure projects?	10 if project was part of a structured PPP/PFI programme with a clearly identifiable pipeline of repeat projects.
Sub total	6		
Regulatory environment			
Legislative framework	10	Determine whether the country has a strong legal framework? Are contracts easily enforceable?	10 if contracts are easily enforceable. 1 if there is no sanctity of contract.
Concession agreements	2	Examine whether the country has concession legislation in place? Was there a history of project concessions?	10 if the country had a long history of signing concession contracts.
Independent regulation	5	Examine the strength of the regulatory regime? Does the country have a strong independent regulator?	10 if there was a strong regulatory process in place when the project was signed.
Sub Total	6		
Strength of financial market			
Deep and liquid capital market	5	Examine the depth and liquidity of the country's capital markets.	10 for London, NY, Frankfurt and Tokyo; 1 for countries with relatively 'young' stock market.
Instruments and Funding institutions	6	Determine whether there was a variety of funding institutions offering a number of funding instruments.	10 for the availability of different funding options including sponsor equity, long-term debt, equity funds etc; 1 for limited financing options.
Sub total	6		

Criteria	Project	Explanation of the criterion	Explanation of scoring 10=excellent; 1=poor
	Skye Bridge		
Legal framework			
Culture of private sector participation	4	Determine whether there was a history of contractualising the provision of private sector services?	10 if there were numerous existing precedents for the private sector provision of public services; 1 if there were no precedents.
Procurement laws	6	Examine whether international procurement practice was followed.	10 if recognised good international procurement practice was followed; 1 if good practice was not followed.
Property rights	9	Examine whether the law contained safeguards for property rights?	10 if there existed an established recognition of property rights under the law; 1 if property rights were not recognised.
Expropriation risks	10	Examine whether there were high risks of expropriation.	10 for no risks; 1 for high risks.
Sub total	8		
Bidder expertise			
No. of bidders	7	Determine how many credible bidders were shortlisted to tender?	10 for three bidders or above; 1 for one or no credible bidders.
Financial capacity and technical expertise in the sector	6	Examine whether the right bidders were selected. Did they have sufficient experience of the sector?	10 for experienced and well capitalised bidders; 1 for inexperienced bidders.
Sub total	7		

1	Project Realism	7
2	Project Preparation	6
3	Regulatory environment	6
4	Strength of financial market	6
5	Legal framework	8
6	Bidder expertise	7

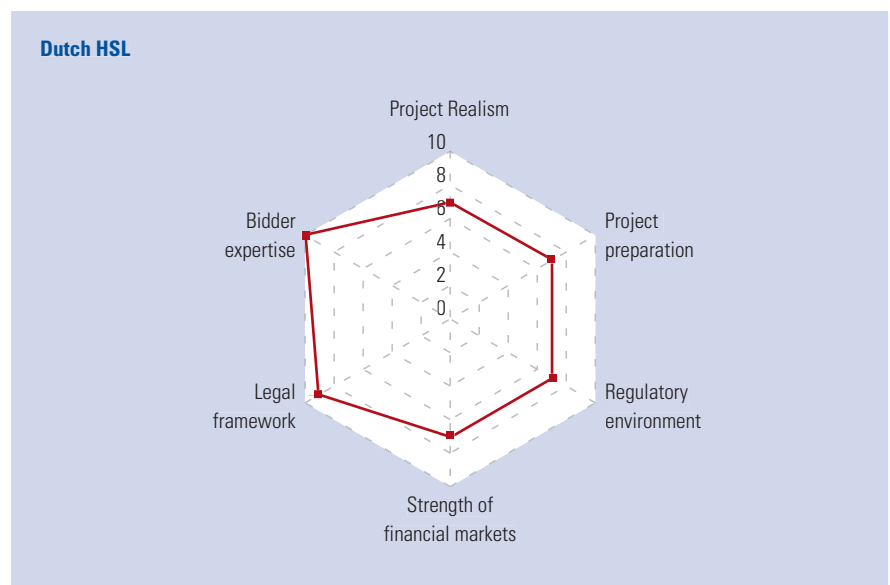


Dutch HSL

Criteria	Project	Explanation of the criterion	Explanation of scoring 10=excellent; 1=poor
	Dutch High Speed Rail		
Project Realism			
Costs	5	Examine costs relative to other large scale infrastructure projects in the same country at the time.	Score 10 if costs are NOT exceptional; score 1 if costs are high compared to other public sector projects at the time.
Expected Revenues	5	Examine certainty of traffic forecasts and projected revenues.	Score 10 if revenues are certain and ensure cost recovery; Score 1 if expected revenues are very low and uncertain.
Government grant	10	Examine level of government grant relative to user fees.	Score 10 if government grant exceeds 50% of revenues.
Toll/user charges	10	Examine price of tolls relative to local purchasing power?	10 for realistic pricing that most users will find affordable. 1 for unrealistic pricing.
Availability of competing routes/modes of transport	1	Examining the availability of competing routes/modes of transport.	10 if there is no competition from any other routes or transport modes; 1 if there is direct competition along the same route.
Sub total	7		
Project Preparation			
Technical studies	8	Examine whether a technical feasibility study undertaken prior to project commencement?	10 for detail feasibility study; 1 for no feasibility study.
Planning	10	Examine the extent to which government accepted planning risk.	10 if government accepted most of the planning risk; 1 if planning risk was transferred to the private sector.
Project promotion to stakeholders	4	Examine the extent to which a project was promoted to stakeholders such as unions, landowners, general public/consumers etc?	10 if the project was widely accepted as essential; 1 if there was significant opposition from all quarters.
Project complexity and innovation	4	Examine whether the project was technically complex and/or innovative.	Score 1 if the project was technically complex and/or innovative and 10 if the project was simple.
Procurement process and competition	7	Examine whether the procurement process was transparent, allowing bidders to submit competitive bids.	10 if the process was transparent; 1 if the process was opaque.
Project definition and clarity of requirements	10	Examine whether the project was well defined. Was the public sector clear about what it wanted to buy?	10 if the project was well defined; 1 if the project was not well defined and government frequently changed its requirements.
Context of project	1	Determine whether the project was a 'one off' or part of a programme of privately financed infrastructure projects?	10 if project was part of a structured PPP/PFI programme with a clearly identifiable pipeline of repeat projects.
Sub total	7		
Regulatory environment			
Legislative framework	8	Determine whether the country has a strong legal framework? Are contracts easily enforceable?	10 if contracts are easily enforceable. 1 if there is no sanctity of contract.
Concession agreements	6	Examine whether the country has concession legislation in place? Was there a history of project concessions?	10 if the country had a long history of signing concession contracts.
Independent regulation	7	Examine the strength of the regulatory regime? Does the country have a strong independent regulator?	10 if there was a strong regulatory process in place when the project was signed.
Sub Total	7		
Strength of financial market			
Deep and liquid capital market	7	Examine the depth and liquidity of the country's capital markets.	10 for London, NY, Frankfurt and Tokyo; 1 for countries with relatively 'young' stock market.
Instruments and Funding institutions	7	Determine whether there was a variety of funding institutions offering a number of funding instruments.	10 for the availability of different funding options including sponsor equity, long-term debt, equity funds etc; 1 for limited financing options.
Sub total	7		

Criteria	Project	Explanation of the criterion	Explanation of scoring 10=excellent; 1=poor
	Dutch High Speed Rail		
Legal framework			
Culture of private sector participation	5	Determine whether there was a history of contractualising the provision of private sector services?	10 if there were numerous existing precedents for the private sector provision of public services; 1 if there were no precedents.
Procurement laws	10	Examine whether international procurement practice was followed.	10 if recognised good international procurement practice was followed; 1 if good practice was not followed.
Property rights	10	Examine whether the law contained safeguards for property rights?	10 if there existed an established recognition of property rights under the law; 1 if property rights were not recognised.
Expropriation risks	10	Examine whether there were high risks of expropriation.	10 for no risks; 1 for high risks.
Sub total	9		
Bidder expertise			
No. of bidders	9	Determine how many credible bidders were shortlisted to tender?	10 for three bidders or above; 1 for one or no credible bidders.
Financial capacity and technical expertise in the sector	10	Examine whether the right bidders were selected. Did they have sufficient experience of the sector?	10 for experienced and well capitalised bidders; 1 for inexperienced bidders.
Sub total	10		

1	Project Realism	7
2	Project Preparation	7
3	Regulatory environment	7
4	Strength of financial market	7
5	Legal framework	9
6	Bidder expertise	10

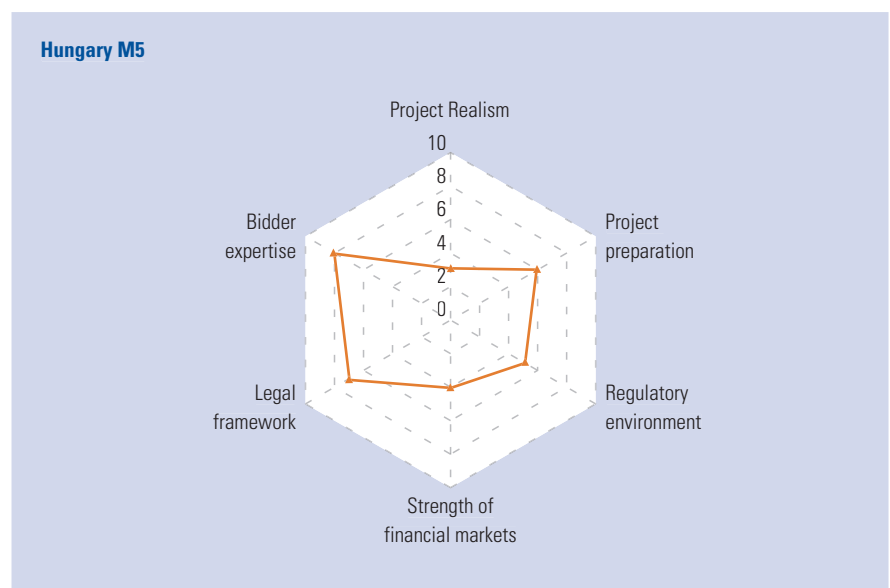


Hungary M5

Criteria	Project	Explanation of the criterion	Explanation of scoring 10=excellent; 1=poor
	Hungary M5		
Project Realism			
Costs	1	Examine costs relative to other large scale infrastructure projects in the same country at the time.	Score 10 if costs are NOT exceptional; score 1 if costs are high compared to other public sector projects at the time.
Expected Revenues	2	Examine certainty of traffic forecasts and projected revenues.	Score 10 if revenues are certain and ensure cost recovery; Score 1 if expected revenues are very low and uncertain.
Government grant	7	Examine level of government grant relative to user fees.	Score 10 if government grant exceeds 50% of revenues.
Toll/user charges	1	Examine price of tolls relative to local purchasing power?	10 for realistic pricing that most users will find affordable. 1 for unrealistic pricing.
Availability of competing routes/modes of transport	1	Examining the availability of competing routes/modes of transport.	10 if there is no competition from any other routes or transport modes; 1 if there is direct competition along the same route.
Sub total	3		
Project Preparation			
Technical studies	10	Examine whether a technical feasibility study undertaken prior to project commencement?	10 for detail feasibility study; 1 for no feasibility study.
Planning	5	Examine the extent to which government accepted planning risk.	10 if government accepted most of the planning risk; 1 if planning risk was transferred to the private sector.
Project promotion to stakeholders	6	Examine the extent to which a project was promoted to stakeholders such as unions, landowners, general public/consumers etc?	10 if the project was widely accepted as essential; 1 if there was significant opposition from all quarters.
Project complexity and innovation	8	Examine whether the project was technically complex and/or innovative.	Score 1 if the project was technically complex and/or innovative and 10 if the project was simple.
Procurement process and competition	3	Examine whether the procurement process was transparent, allowing bidders to submit competitive bids.	10 if the process was transparent; 1 if the process was opaque.
Project definition and clarity of requirements	5	Examine whether the project was well defined. Was the public sector clear about what it wanted to buy?	10 if the project was well defined; 1 if the project was not well defined and government frequently changed its requirements.
Context of project	1	Determine whether the project was a 'one off' or part of a programme of privately financed infrastructure projects?	10 if project was part of a structured PPP/PFI programme with a clearly identifiable pipeline of repeat projects.
Sub total	6		
Regulatory environment			
Legislative framework	7	Determine whether the country has a strong legal framework? Are contracts easily enforceable?	10 if contracts are easily enforceable. 1 if there is no sanctity of contract.
Concession agreements	5	Examine whether the country has concession legislation in place? Was there a history of project concessions?	10 if the country had a long history of signing concession contracts.
Independent regulation	2	Examine the strength of the regulatory regime? Does the country have a strong independent regulator?	10 if there was a strong regulatory process in place when the project was signed.
Sub Total	5		
Strength of financial market			
Deep and liquid capital market	3	Examine the depth and liquidity of the country's capital markets.	10 for London, NY, Frankfurt and Tokyo; 1 for countries with relatively 'young' stock market.
Instruments and Funding institutions	5	Determine whether there was a variety of funding institutions offering a number of funding instruments.	10 for the availability of different funding options including sponsor equity, long-term debt, equity funds etc; 1 for limited financing options.
Sub total	4		

Criteria	Project	Explanation of the criterion	Explanation of scoring 10=excellent; 1=poor
	Hungary M5		
Legal framework			
Culture of private sector participation	1	Determine whether there was a history of contractualising the provision of private sector services?	10 if there were numerous existing precedents for the private sector provision of public services; 1 if there were no precedents.
Procurement laws	7	Examine whether international procurement practice was followed.	10 if recognised good international procurement practice was followed; 1 if good practice was not followed.
Property rights	10	Examine whether the law contained safeguards for property rights?	10 if there existed an established recognition of property rights under the law; 1 if property rights were not recognised.
Expropriation risks	10	Examine whether there were high risks of expropriation.	10 for no risks; 1 for high risks.
Sub total	7		
Bidder expertise			
No. of bidders	5	Determine how many credible bidders were shortlisted to tender?	10 for three bidders or above; 1 for one or no credible bidders.
Financial capacity and technical expertise in the sector	10	Examine whether the right bidders were selected. Did they have sufficient experience of the sector?	10 for experienced and well capitalised bidders; 1 for inexperienced bidders.
Sub total	8		

1	Project Realism	3
2	Project Preparation	6
3	Regulatory environment	5
4	Strength of financial market	4
5	Legal framework	7
6	Bidder expertise	8

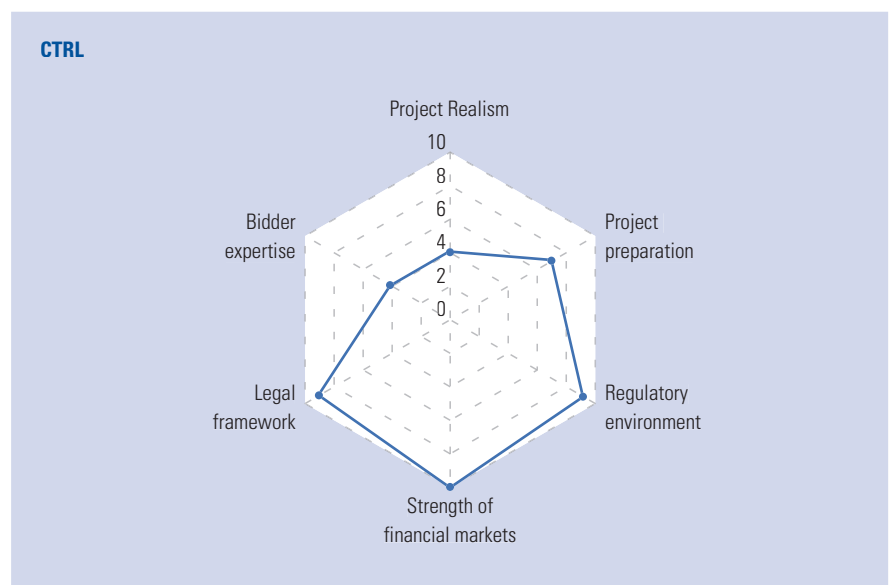


Channel Tunnel Rail Link

Criteria	Project	Explanation of the criterion	Explanation of scoring 10=excellent; 1=poor
	Channel Tunnel		
Project Realism			
Costs	4	Examine costs relative to other large scale infrastructure projects in the same country at the time.	Score 10 if costs are NOT exceptional; score 1 if costs are high compared to other public sector projects at the time.
Expected Revenues	1	Examine certainty of traffic forecasts and projected revenues.	Score 10 if revenues are certain and ensure cost recovery; Score 1 if expected revenues are very low and uncertain.
Government grant	7	Examine level of government grant relative to user fees.	Score 10 if government grant exceeds 50% of revenues.
Toll/user charges	8	Examine price of tolls relative to local purchasing power?	10 for realistic pricing that most users will find affordable. 1 for unrealistic pricing.
Availability of competing routes/modes of transport	4	Examining the availability of competing routes/modes of transport.	10 if there is no competition from any other routes or transport modes; 1 if there is direct competition along the same route.
Sub total	4		
Project Preparation			
Technical studies	8	Examine whether a technical feasibility study undertaken prior to project commencement?	10 for detail feasibility study; 1 for no feasibility study.
Planning	6	Examine the extent to which government accepted planning risk.	10 if government accepted most of the planning risk; 1 if planning risk was transferred to the private sector.
Project promotion to stakeholders	8	Examine the extent to which a project was promoted to stakeholders such as unions, landowners, general public/consumers etc?	10 if the project was widely accepted as essential; 1 if there was significant opposition from all quarters.
Project complexity and innovation	9	Examine whether the project was technically complex and/or innovative.	Score 1 if the project was technically complex and/or innovative and 1 if the project was simple.
Procurement process and competition	7	Examine whether the procurement process was transparent, allowing bidders to submit competitive bids.	10 if the process was transparent; 1 if the process was opaque.
Project definition and clarity of requirements	4	Examine whether the project was well defined. Was the public sector clear about what it wanted to buy?	10 if the project was well defined; 1 if the project was not well defined and government frequently changed its requirements.
Context of project	5	Determine whether the project was a 'one off' or part of a programme of privately financed infrastructure projects?	10 if project was part of a structured PPP/PFI programme with a clearly identifiable pipeline of repeat projects.
Sub total	7		
Regulatory environment			
Legislative framework	10	Determine whether the country has a strong legal framework? Are contracts easily enforceable?	10 if contracts are easily enforceable. 1 if there is no sanctity of contract.
Concession agreements	8	Examine whether the country has concession legislation in place? Was there a history of project concessions?	10 if the country had a long history of signing concession contracts.
Independent regulation	8	Examine the strength of the regulatory regime? Does the country have a strong independent regulator?	10 if there was a strong regulatory process in place when the project was signed.
Sub Total	9		
Strength of financial market			
Deep and liquid capital market	10	Examine the depth and liquidity of the country's capital markets	10 for London, NY, Frankfurt and Tokyo; 1 for countries with relatively 'young' stock market
Instruments and Funding institutions	10	Determine whether there was a variety of funding institutions offering a number of funding instruments	10 for the availability of different funding options including sponsor equity, long-term debt, equity funds etc; 1 for limited financing options
Sub total	10		

Criteria	Project	Explanation of the criterion	Explanation of scoring 10=excellent; 1=poor
	Channel Tunnel		
Legal framework			
Culture of private sector participation	7	Determine whether there was a history of contractualising the provision of private sector services?	10 if there were numerous existing precedents for the private sector provision of public services; 1 if there were no precedents.
Procurement laws	7	Examine whether international procurement practice was followed.	10 if recognised good international procurement practice was followed; 1 if good practice was not followed.
Property rights	10	Examine whether the law contained safeguards for property rights?	10 if there existed an established recognition of property rights under the law; 1 if property rights were not recognised.
Expropriation risks	10	Examine whether there were high risks of expropriation.	10 for no risks; 1 for high risks.
Sub total	9		
Bidder expertise			
No. of bidders	4	Determine how many credible bidders were shortlisted to tender?	10 for three bidders or above; 1 for one or no credible bidders.
Financial capacity and technical expertise in the sector	4	Examine whether the right bidders were selected. Did they have sufficient experience of the sector?	10 for experienced and well capitalised bidders; 1 for inexperienced bidders.
Sub total	4		

1	Project Realism	4
2	Project Preparation	7
3	Regulatory environment	9
4	Strength of financial market	10
5	Legal framework	9
6	Bidder expertise	4

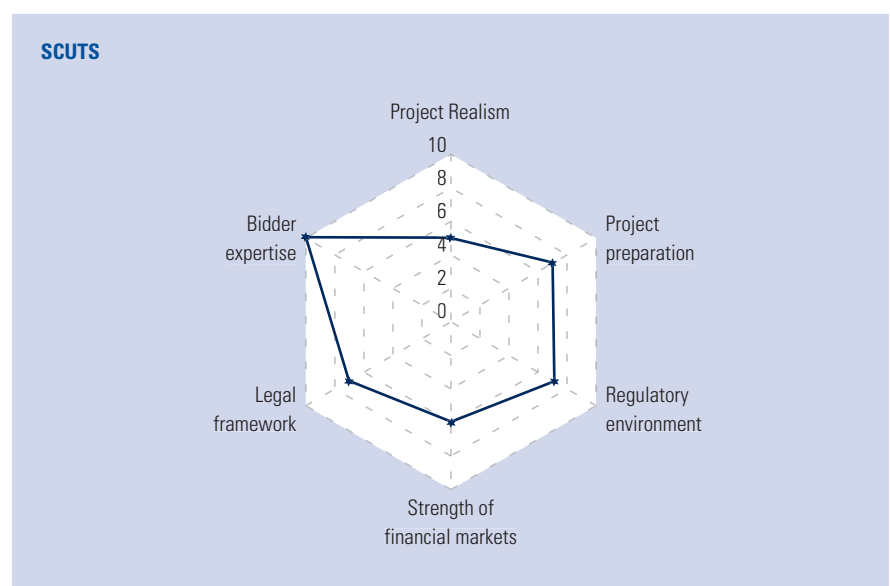


Portuguese Scuts

Criteria	Project	Explanation of the criterion	Explanation of scoring 10=excellent; 1=poor
	Portuguese Scuts		
Project Realism			
Costs	3	Examine costs relative to other large scale infrastructure projects in the same country at the time.	Score 10 if costs are NOT exceptional; score 1 if costs are high compared to other public sector projects at the time.
Expected Revenues	7	Examine certainty of traffic forecasts and projected revenues.	Score 10 if revenues are certain and ensure cost recovery; Score 1 if expected revenues are very low and uncertain.
Government grant	2	Examine level of government grant relative to user fees.	Score 10 if government grant exceeds 50% of revenues.
Toll/user charges	10	Examine price of tolls relative to local purchasing power?	10 for realistic pricing that most users will find affordable. 1 for unrealistic pricing.
Availability of competing routes/modes of transport	8	Examining the availability of competing routes/modes of transport.	10 if there is no competition from any other routes or transport modes; 1 if there is direct competition along the same route.
Sub total	5		
Project Preparation			
Technical studies	4	Examine whether a technical feasibility study undertaken prior to project commencement?	10 for detail feasibility study; 1 for no feasibility study.
Planning	5	Examine the extent to which government accepted planning risk.	10 if government accepted most of the planning risk; 1 if planning risk was transferred to the private sector.
Project promotion to stakeholders	5	Examine the extent to which a project was promoted to stakeholders such as unions, landowners, general public/consumers etc?	10 if the project was widely accepted as essential; 1 if there was significant opposition from all quarters.
Project complexity and innovation	8	Examine whether the project was technically complex and/or innovative.	Score 1 if the project was technically complex and/or innovative and 1 if the project was simple.
Procurement process and competition	8	Examine whether the procurement process was transparent, allowing bidders to submit competitive bids.	10 if the process was transparent; 1 if the process was opaque.
Project definition and clarity of requirements	7	Examine whether the project was well defined. Was the public sector clear about what it wanted to buy?	10 if the project was well defined; 1 if the project was not well defined and government frequently changed its requirements.
Context of project	10	Determine whether the project was a 'one off' or part of a programme of privately financed infrastructure projects?	10 if project was part of a structured PPP/PFI programme with a clearly identifiable pipeline of repeat projects.
Sub total	7		
Regulatory environment			
Legislative framework	9	Determine whether the country has a strong legal framework? Are contracts easily enforceable?	10 if contracts are easily enforceable. 1 if there is no sanctity of contract.
Concession agreements	5	Examine whether the country has concession legislation in place? Was there a history of project concessions?	10 if the country had a long history of signing concession contracts.
Independent regulation	5	Examine the strength of the regulatory regime? Does the country have a strong independent regulator?	10 if there was a strong regulatory process in place when the project was signed.
Sub Total	7		
Strength of financial market			
Deep and liquid capital market	5	Examine the depth and liquidity of the country's capital markets.	10 for London, NY, Frankfurt and Tokyo; 1 for countries with relatively 'young' stock market.
Instruments and Funding institutions	7	Determine whether there was a variety of funding institutions offering a number of funding instruments.	10 for the availability of different funding options including sponsor equity, long-term debt, equity funds etc; 1 for limited financing options.
Sub total	6		

Criteria	Project	Explanation of the criterion	Explanation of scoring 10=excellent; 1=poor
	Channel Tunnel		
Legal framework			
Culture of private sector participation	4	Determine whether there was a history of contractualising the provision of private sector services?	10 if there were numerous existing precedents for the private sector provision of public services; 1 if there were no precedents.
Procurement laws	7	Examine whether international procurement practice was followed.	10 if recognised good international procurement practice was followed; 1 if good practice was not followed.
Property rights	8	Examine whether the law contained safeguards for property rights?	10 if there existed an established recognition of property rights under the law; 1 if property rights were not recognised.
Expropriation risks	9	Examine whether there were high risks of expropriation.	10 for no risks; 1 for high risks.
Sub total	7		
Bidder expertise			
No. of bidders	10	Determine how many credible bidders were shortlisted to tender?	10 for three bidders or above; 1 for one or no credible bidders.
Financial capacity and technical expertise in the sector	9	Examine whether the right bidders were selected . Did they have sufficient experience of the sector?	10 for experienced and well capitalised bidders; 1 for inexperienced bidders.
Sub total	10		

1	Project Realism	5
2	Project Preparation	7
3	Regulatory environment	7
4	Strength of financial market	6
5	Legal framework	7
6	Bidder expertise	10



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