DRAFT

Potential for Private Investment in Railways in Southern Mongolia

Options, Examples and Issues

Introduction

The development of Mongolia's strategic mines, including Oyu Tolgoi and Tavan Tolgoi, require electricity plants and railways costing well over $1 billion. As the Government can finance at most about $100 million of infrastructure (electricity, transport, water services, housing) per year in South Gobi using its own revenues, it will be necessary to mobilise private sector investment if these projects are to go ahead. This paper summarises potential options for private sector investment in the railway sector, with particular emphasis on infrastructure, describes a number of relevant international examples, and highlights key issues demonstrated by the examples.

Options

There are many different ways in which the private sector can be involved in the construction and operation of railway lines (Table 1).

Table 1 Main forms of private-sector involvement in new railway projects

	Finance and build rail line	Operate and maintain rail line	Finance and maintain trains	Operate train services
Train availability contract	Public	Public	Private	Public or private (hire payments to private)
Train operating concession	Public	Public	Private	Private (pay access charges to public)
Infrastructure concession	Private	Public or private (lease payments to private)	Public or private	Public or private
Infrastructure build and operate concession	Private	Private	Public or private	Public or private (pay access charges to private)
Integrated concession	Private	Private	Private	Private

The private sector can be involved in any, or all, of infrastructure construction, operation (i.e. signalling and train control), and provision of rollingstock and train operation through five basic types of concession:

- Train availability contract – examples of these contracts, where rollingstock is provided by a third party (who normally also does the scheduled maintenance) include the Roscos (both passenger and freight rollingstock companies) and the 'power-by-the-hour' contracts which have been negotiated with some major manufacturers. These enable what would otherwise be large lumps of capital expenditure to be spread over the life of the asset, as well as guaranteeing rollingstock availability and reliability.
- Train operating concession – examples of these are the various European passenger rail concessions in which operators either pay Government (or are paid by Government) to operate specific services. Such operators pay access charges (normally a combination of a rate per train-kilometer and a rate per gross tonne-kilometer) to the infrastructure provider. In some cases, and this is the normal

situation for freight, there is 'open access', i.e. an operator can operate trains without any financial payment to or from Government by merely complying with technical standards and paying access charges

- Infrastructure concession – where an organisation undertakes to build infrastructure which is then leased to Government (either directly or to a Government-owned railway) for an annual lease fee. This arrangement is similar financially to leasing rollingstock in that it avoids having to make a large initial capital expenditure and it also greatly reduces Government's risk of project over-runs and delays. However, it is normally Government's responsibility to provide the right-of-way and to supervise resettlement. In the early days, many railways were built in this way and then contracted to a neighbouring (and generally larger) railway to operate, normally in return for either a fixed fee or for a share of revenue.
- Infrastructure build and operate concession – where an organisation both builds the infrastructure and 'operates' it, similar to the arrangements used for toll-roads. There are comparatively few examples of such arrangements, although there is currently a proposal for such a scheme for a new mining development in Australia. A high-profile project of this type which failed is Betuwe, originally planned to have significant private-sector participation (see later case study), but which eventually was entirely public-sector funded.
- Integrated concession – this is the classic form of concession which flourished in the 19th century. A company is given the right to build and operate a railway, normally for a defined time period (historically 50 or 100 years) subject to certain conditions such as tariff control, service obligations or (on the Government side) a dividend guarantee. Recent examples include the Alice Springs – Darwin line in Australia (although this is subject to open-access provisions) and the Saudi landbridge project.

There are a number of variations on these basic models; for example, a line can be financed by a mine developer, even if it is built and operated by the public sector, with the cost of the line being offset against freight revenue received from the mine.

The next section of the paper describes specific examples of these arrangements, concentrating on the last three which are of particular relevance to Mongolia.

Examples of construction concessions

There is a fundamental distinction between railways built by an individual company (or companies), which they intend to use to transport their own products as part of an overall logistic chain, and those which third parties can use – either using and operating their own rollingstock or using services provided by railway operator. Many of the new railways constructed in the last fifty years have been of the first type: examples include the Carajas ore line in Brazil and the Mauritania ore line in West Africa. Both were built by mining companies to transport their ore as part of an integrated mine-rail-port project (and both incidentally with World Bank assistance). However, they are both effectively private railways with no obligations to provide a service for third parties, although some informal passenger transport is done by both of them.

The examples will instead concentrate on those in the second group, where the railways have either been explicitly built to carry third-party freight or it is an obligation imposed by the Government as part of the permission to construct the

railway. There are relatively few examples of completely new private construction of this type. Six examples which will be briefly discussed are:

- The Queensland coal lines
- The Pilbara iron ore lines
- The Alice Springs – Darwin general freight line
- The proposed Yilgarn IIP
- The Beitbridge Railway
- The Betuwe Line

In addition, there are two examples of existing lines which have been concessioned for rehabilitation

- Fenoco in Colombia
- The manganese ore line in Gabon

The Queensland coal lines

Export coal shipments from Queensland, which now total some 150 million tonnes p.a. (mtpa), began in the 1960s when two companies, Thiess and Utah, began mining operations. The original 1962 Act authorising the Thiess project had provided for the company to build its own railway from the mine to the port. However, this was renegotiated in 1965 with the state retaining its railway monopoly. This then enabled the railway (and thus the state) to negotiate tariffs which were significantly higher than those normally charged for carriage and could be broadly characterised as the difference between the export price at the port and the production cost (including profit) at the mine[1]. However, the cost of building the line, and the risk that the government took that the project might be aborted, had to be weighed against these very significant coal revenues. This was done by requiring a security deposit which was equal[2] to the capital cost of building the line and which was repaid over the subsequent ten years as traffic developed.

Similar arrangements were subsequently entered into with Utah, whose security deposit was used to upgrade an existing line to carry the increased freight volume, and a consortium known as Central Queensland Coal Associates (CQCA), whose security deposit was used to build the completely new heavy-haul Goonyella system.

These pricing arrangements endured for about thirty years and were responsible for a steady stream of revenue into the railway system, which was used to cross-subsidise just about everything else the railway did. The coal companies complained loudly and continuously but it was not until the late 1990s that the first steps began to be taken to soften the impact. The main factor that reduced these rates to more normal levels, however, was the introduction of 'open-access' to the Queensland coal network in which any coal mine could tender competitively for a third-party rail operator to carry its coal to port (or operate its own rail service if it chose to). Once this occurred, market forces rapidly reduced the rail tariffs to the access charge (which is independently regulated to be full cost plus a margin) plus the competitive above-rail component set by the market.

This system had its advantages and disadvantages. It enabled all the coal lines to be built at no cost to the state, whilst ensuring the state a very strong cashflow over a

[1] Queensland also charged conventional mineral royalties.

[2] It was equal to about half the capital cost in the initial Thiess project but was increased to the full cost in all subsequent agreements

period of many years, albeit in a manner which was criticised on the grounds of lack of transparency, accountability of government and the way in which the revenue (which was more a royalty/tax than a fee for services provided) was retained within the railway system rather than being applied more generally to the common benefit of the population.

The Pilbara iron ore lines

In West Australia, large iron ore deposits in the Pilbara were developed (principally by what are now BHP Billiton and Rio Tinto) at around the same time as the Queensland coalfields. The iron ore was in a much more remote area than the coal in Queensland and the proposed lines to the ports were totally disconnected from the 1067mm main rail network. In this case, the state government decided the mines could build and operate their own railways and they did so, using a North American-dimensioned standard-gauge in contrast to the gauge used on the rest of the network.

The Government was, however, concerned to ensure that the railway could be used by others if needed and so a clause was included in the Acts authorising the developments which required the mines to carry the freight of other users if requested. (This 'freight carriage' clause is generally interpreted to mean that third-parties would provide their own wagons which would then be hauled by the mine-owned locomotives). However, although this clause was included, it was not invoked for over 30 years.

In recent years, however, there has been a major expansion in iron ore projects in the Pilbara. Some of the projects are very large (the Forrest project is planned to export 45 mtpa), while others are much smaller. All new projects face the problem of transporting their ore to port. Whilst some (such as Forrest) are building their own line for at least part of their output, others (with volumes too small to justify building their own line) have been trying to have their production carried by either Rio Tinto or BHP. They have tried this either by using the third-party haulage clause in the original acts or by using more general powers which allow certain infrastructure to be 'declared' as open for third-party access[3]. Whatever the approach adopted, there has been little progress in gaining access; the haulage negotiations dragged on for along time before the second mine decided to build its own line while the 'declaration' approach has been debated in the courts for over three years.

Leaving aside the specific circumstances of the Pilbara, this example highlights the difficulties of legislating for access for some unknown third parties at some unknown date. If it is expected that relatively small mines will need access at some future date, this should either be spelt out very clearly in the initial concession agreement or a structure should be established which readily enables multiple users.

(AustralAsia) Alice Springs - Darwin

The AustralAsia Railway project is a Build, Own, Operate and Transfer (BOOT) scheme, with lease arrangements covering 50 years' operation before the railway is handed back to the Northern Territory and South Australian Governments. Construction was completed in early 2004. The project comprises:

---

[3] This legislation was introduced in 1995 but whether it was ever intended to be applied to private railways such as in the Pilbara is debatable

- The construction of a new 1420 km stretch of standard gauge line between Alice Springs and Darwin;
- The leasing, at a nominal rental, and maintenance of the existing 830km Tarcoola to Alice Springs standard gauge line which opened in 1980;
- Integration with the Port of Darwin, including a railway embankment and intermodal container terminal and the new Business Park developments providing a direct road/rail transport facility for domestic freight; and
- Operation of the new transcontinental line for 50 years after completion of construction.

The Northern Territory has a very small population and around five return freight services a week from Adelaide to Darwin, providing a competitive service to existing long haul road freight services. There is one passenger service a week, aimed at the tourist market and operated by an independent passenger operator who pays access charges. Some mineral traffic is now carried from mines to Darwin but the total traffic is only around 2 million tonnes at present.

The Governments' objective was to facilitate private sector participation in the project by providing an up-front capital payment, to attract the balance of capital on commercial terms, with the private sector responsible for the construction and operation risks. No ongoing subsidies were to be provided. The total construction cost was around US$1 billon, of which nearly 60% was provided by the private sector. In common with all Australian main lines, the line is subject to 'open access', meaning other operators can use it on payment of access charges. These charges are subject to a regulator but otherwise there is no control on tariffs[4].

Initial freight volumes on the line were claimed to be in line with expectations, most road freight on the route has transferred to rail, and it has attracted mineral traffic because of the commodity boom. However yields (revenue per tonne-kilometer) have been much lower than projected and this has placed significant financial pressure on the consortium and its financiers. It is still struggling under its debt structure and in 2007 it is reported revenue was about US$65 million and it was making an operating profit of about US$15 million but, after paying interest, it made a loss of about $50 million.

The construction of this line was a Government commitment and so, in the circumstances, Governments have done quite well out of the arrangement, with an operating railway that does not require any on-going support. The concessionaires have done less well but, as it is making an operating profit, it is unlikely to close and the overall result will be that debt will be repaid over a much longer timeframe than was originally envisaged.

Yilgarn IIP

The rapid rise in commodity prices has led to several mineral projects being developed in the Murchison region, some 500 kilometers south of the Pilbara and about 300-500 kilometers inland from Geraldton in West Australia. The region is served by one or two existing 1067mm lines but these will need major rehabilitation

[4] Thus a mine who felt a proposed tariff was too large could operate its own trains. A large mine might purchase its own rollingstock but a small mine would probably contract another train operator.

before being capable of carrying heavy-haul trains. The projects, most of which have Chinese involvement of some sort, range in size from small (under 5 million tonnes p.a.) to medium-large (20-40 million tonnes); only a few are capable of justifying a heavy-haul railway by themselves but many smaller operators would benefit from being able to build a connecting line and then paying for a share of a common-user facility, rather than the alternative of road-trains (in some cases for up to 600 kilometers).

The Government, at least publicly, appears committed to the principle of a common-user railway ('… to make sure we do not have the same problems that we incurred in Port Hedland in the Pilbara…') but there are varying views on the best way for this to be implemented. Three options, which are not mutually exclusive, are currently being canvassed. One of the most widely-advertised is Yilgarn Infrastructure, which is promoting itself as an Independent Infrastructure Provider (IIP), i.e. it would construct a railway and new port which would then be available to any third-party user on payment of the relevant fees. Each mine using it would take equity and thus share in both the capital and operating costs and, presumably, the available capacity (this is similar to the Fenoco scheme described below).

An alternative model proposed by other projects appears to be for a few major mines to construct a line as a consortium but subject to open access provisions so that the capital cost would be recovered from third-party users through the access charge.

A third option is for the existing lines to be rehabilitated by the existing rail infrastructure body, either alone or in partnership with potential users. West Australia is unique in having its rail infrastructure owned by a private-sector investment company (Babcock and Brown) which does not operate trains. The principle of vertical separation is thus well-established and understood both in and out of government and amongst rail operators and there is a well-established and well-functioning regulatory regime which establishes access charges.

The projects are still under development, with the first step being the concession for the development of a new port (Oakajee) which will probably strongly influence the ultimate decisions on rail network development.

Beitbridge Railway

The Beitbridge Bulawayo Railway (BBR) is one of the few concessions in recent times in the classical BOT form of constructing a new general-purpose line (as distinct to rehabilitation) and subsequently operating it as a monopoly. The route runs from Beitbridge, on the South African border on the Limpopo, to Heany Junction, near Bulawayo, where it rejoins the main Zimbabwe system. There was about 150 km of new construction at the eastern end with the remainder consisting of a partially-upgraded existing branch line which received some upgrading. The line provides a significant distance saving for traffic to Bulawayo and on to Central Africa but is a longer route for traffic between South Africa and Harare.

BBR is a privately-owned Zimbabwe registered railroad company, of which the Government (through its railway) owns 15 percent. The line was opened in July 1999 at a reported cost of US$85 million, having been constructed in 17 months. It was designed to Spoornet standards, with a 20 tonne axle-load, has a capacity of 4 million tonnes p.a. and is operated by Spoornet under contract.

The terms of the concession have never been made public; it is understood they have require (or encourage) NRZ to direct as much traffic as possible over the line, including a 'take or pay' clause for some traffic, leading to traffics being diverted from their normal (and shorter) routes onto the line. However, little published information is available about either traffic volumes or rates.

Subsequently BBR signed a further agreement with the Zimbabwe government to also operate the Bulawayo-Victoria Falls line; it also currently has the rail concession in Zambia and thus effectively operates from South Africa through to the DRC border and mines.

It is debatable whether this railway has provided any real benefit for Zimbabwe and it will be interesting to see whether the arrangements are modified after the current President leaves office.

Betuwe Line

Historically, railways in the Netherlands were loss-making businesses, operated by a state-owned monopoly (NS: Dutch Railways). However, in the 1980s the Dutch government was planning to construct the Betuwe Line, a freight-transit line connecting the port of Rotterdam to the German rail network and, as it was thought it would be profit-making (in spite of its estimated cost at the time of € 1.7 billion Euros), it was decided there would be major private-sector participation in its design, construction, maintenance and operation. In the event, private-sector involvement has been a complete failure.

The decision to construct the line, which was designed to strengthen the international competitiveness of the port of Rotterdam, was eventually taken in 1993 after considerable lobbying. However, as planning got under way, there were considerable protests, pushing up the cost and delaying the opening from the original date of 2000 to 2007. Because the government could not cover the entire project cost, a private-sector contribution of 830 million euros was sought out of a total budget of approximately € 2.5 billion (but which subsequently blew out to over € 4.8 billion). Although private financing was initially regarded as essential, this view steadily changed to avoid delay to the project while waiting for "up-front" private contributions, and construction began. In addition, the Ministry of Finance advised that, as private financing is more costly than public financing, private finance should only be used if this difference could be compensated by gains in efficiency.

Private operation therefore became the new objective so that future operators, service providers and clients could invest in the project and thus have an interest in developing use of the line. These strategic investors could also influence and reduce risks and costs, unlike pure financial institutions which build substantial risk premia into their interest rates.

By the time construction started, there was still no private involvement and so the Government opted for prior public financing, letting the construction contracts in a conventional way. Unfortunately, market testing also showed that private parties were also unwilling to take any risks as line operators and participate and it was then decided the government would operate the line, at least initially, but with the hope that it could subsequently be concessioned.

Whilst the line was being developed, NS was split into a number of companies, one of which was NS Cargo, one of the main potential users of the line. This was subsequently taken over by Railion (part of Deutsche Bahn), but other operators have also entered the Dutch freight rail market and there are now around half-a-dozen active carriers. However, as independent operators, they have a choice as to whether or not to use the new line and this will depend on access charges on the alternative routes. As a result, it was forecast in 2002 that the user fees would be insufficient to cover the costs of operation, let alone provide any contribution to construction costs and a business case put together by Rotterdam Port and Prorail (the new name for NS) which was designed to minimize further Government contributions still had losses in the tens of millions of euros in the first few years of the operation of the line. Forecasts immediately after opening in 2007 were that revenue in 2008 would be € 5 million, compared to operating costs of € 13 million (excluding debt service), with breakeven not before 2013 at the earliest.

Private-sector participation in the Betuwe Line has thus not been achieved and the project was prepared, built and financed, and is being maintained and operated, by the public sector. There are several reasons why this project failed: there was no clear business case; there both technical and policy uncertainties concerning both rail and competing modes; there was no risk analysis or cost sensitivity testing and the estimated private contribution was an arbitrary assumption.

For a long time, it was unclear what type of private participation was being looked for. Financial institutions were initially involved but these were then judged more expensive than public funds. Market consultations indicating that private parties were eager to invest proved to be unreliable; eventually it became clear that they were not willing to carry any project risk and ultimately the partners proved mainly to be public agencies.

This depressing experience with private-sector participation is not unique; there are other examples exhibiting major difficulties in contract negotiations and the tendency of the government to take back risk which was originally to be transferred to private parties. More generally, even relatively sophisticated governments often lack the skills to organise and manage the process of privatisation adequately without outside assistance, resulting in contracts that are claimed to be a success, while the full implications of the contract agreements only become clear at a later date.

Fenoco

Colombia has two large operations with their own internal railway, both dedicated to coal transport. The larger by far is a 150 km railway linking El Cerrejon Norte with the port of Puerto Bolivar; this was originally jointly developed by the state-owned coal company (Carbocol) and a subsidiary of Exxon but is now owned by a consortium of Anglo American, BHP Billiton and Glencore. It is part of an integrated mine-rail-port project and is not connected to the remainder of the Colombian network. A second separate private railway serves Colombia's steel producer. A number of smaller coal producers are located close to the northern trunk line, about 200 km inland, and these have planned for several years to use rail instead of their alternatives of river and road transport to the coast.

Aside from the dedicated coal operations, Colombia's railways deteriorated in the 1990s and the network was in urgent need of rehabilitation. A scheme based on vertical separation, with infrastructure remaining a responsibility of the State whilst operations were done by two joint ventures with majority participation by the private sector, failed and the networks were concessioned from 1999[5]. However, this also failed to solve the problem.

One of the concessions required Fenoco to rehabilitate, maintain and operate the so-called 'Atlantic' network for 30 years; the rehabilitation was to be complete within five years, assisted by US$ 80 million of state funds together with revenue from some limited existing use. In the event, the five years quickly extended to seven years with the concessionaire also receiving additional Government funds but work was always well behind schedule and no private finance was mobilised.

The delays significantly affected the volume of coal the companies could market and, following international arbitration, one of the companies won an arbitration claim against Fenoco of $40 million for breach of contract. Finally, in 2005, the Government bought back Fenoco (for $92 million, as well as assuming its debts) and then re-leased it to a consortium of the local coal companies. The consortium members each have a guaranteed share of rail capacity, depending on their financial stake, tied to Take or Pay Agreements. The consortium is also responsible for upgrading the stretch of the railway that carries the coal exports, as well as for construction of four small branches.

Gabon

The 684 km Transgabonais railway (TG), built as a high-quality standard-gauge line with 25 tonne-axle load between 1974 and 1986, connects the port of Owendo, near Libreville, with Franceville, in the interior. It carries some general freight and passengers but its primary traffics are manganese ore (65 percent) and logs (20 percent). The manganese is mined by Compagnie Minière de l'Ougooué (Comilog), a joint venture between the state and a French mining group. Under a 1989 Government agreement, Comilog provided its own equipment and operated its own rail services, paying an access and usage charge to the state rail company L'Office du Chemin de Fer Transgabonais (Octra).

Prior to 1988, the manganese was transported via cable railway to Congo for rail shipment through the Congolese port of Ponte Noire on Chemin de Fer Congo-Ocean (CFCO). Between 1988 and 1991, transport of the ore was shared between the two railways but from 1991 all manganese exports traveled over the TG. Octra meanwhile was responsible for the infrastructure and handled all passenger and non-manganese cargo traffic. Prior to concessioning, Comilog shipped about 1.5 million tonnes of manganese ore over the railway annually, representing about 43 percent of railway tonnage and 65 percent of tonne-km. Total revenues were about $US 43 million, of which 77 percent were from freight, 13 percent from passengers, and just 8 percent from Comilog. Tariffs for Octra freight were relatively high and there were increasing complaints about the quality of service.

The long-term viability of the railway clearly hinged on the access charge paid by Comilog, which represented 65 percent of the freight tonnage. This had been established partly on a cost basis and partly on the principle that the costs on TG

[5] By this time, the original network had split into the 'Atlantic' network and the 'Pacific' network.

should be below those of the CFCO route and low enough to enable Comilog to compete on the world market. A subsequent agreement established that the charges by Octra should be based on marginal costs.

Prior to concessioning, therefore, the railway had two operators, with the one hauling the bulk of the traffic but paying comparatively low access charges. The infrastructure at that time was in generally good condition but Octra was suffering operating losses and was in a weak financial position. In 1996, the government decided to offer the railway as a rolling concession of not less than twenty years, which could be extended in five-yearly increments. The concession company would operate rail services for general freight and passenger services, and would be responsible for the maintenance and replacement of railway equipment, rolling stock, and infrastructure.

The concessionaire was free to determine tariffs, services, and investment during the period of the concession but paid a concession fee for the existing infrastructure. He had exclusive access to the network, except for usage by Comilog, and acquired the Octra rollingstock that he required. A minimum level of passenger service was required, specified in terms of frequency and capacity and the government would retain a share of approximately 15-20 percent, with some 'golden share' provisions.

The concession fees had two components: an annual lump sum (inflation adjusted) low initially but then increasing in years 6 -20 and a variable element set at 12 percent of the 'surplus operating profit'[6]. The concessionaire had to negotiate an access agreement with Comilog (the government undertook the access charge would 'cover costs') but the concessionaire also had to provide a minimum investment program.

Two groups progressed to the financial proposal stage. One was Transgabonais, a consortium led by the Gabonese National Timber Company (SNBG), the main shipper of timber products, while the second (Gabonrail) was led by Comilog. This development, together with the requirement that any bidder should have reached agreement on access charges with a rival bidder, was clearly a potential problem. After various arguments, the Comilog group decided not to submit a financial offer, and Transgabonais was awarded the concession in late 1998 and began to negotiate an agreement with Comilog. However, it had little co-operation from the incumbent Octra management and, when it took over the railway in late December 1999, there had been no progress on creating a regulatory framework to supervise the concessioning contract.

In the circumstances, it was unlikely that Transgabonais would be in a very strong position to negotiate a realistic access charge with Comilog and this proved to be the case. In May 2003, the concession was cancelled, due to reported 'non-accountability of activities and poor maintenance' and the railway was operated, pending re-concessioning, by a subsidiary of Comilog who immediately claimed investment was in arrears and there was a need for 'catch-up' works.

This concession illustrates the difficulties in awarding a concession where one of the main customers has very strong market power, and strong political links, and there is no countervailing regulatory power. The concession was only going to work with an extremely strong regulator, of a kind that is in very short supply throughout the world; in practice, there was only ever going to be one winner.

---

[6] As defined by Gabonese law: this is roughly equivalent to operating revenues minus the costs of materials, labor, insurance, and duties and taxes i.e. before depreciation

Key issues

Leaving aside the Queensland coal example, which almost certainly would not be adopted today, there are a number of key issues associated with private-sector participation in rail schemes. It is important these be clearly considered and decided prior to any decision on private participation to avoid problems such as those which beset the Betuwe line, concession process commencing

One of the most fundamental is whether, if a line is built by a particular mine, third-parties will be allowed to transport their product on it for a reasonable charge (i.e. cost plus reasonable profit). Many of the heavy-haul lines currently operated are solely used by the company that built them; others, such as the Pilbara lines, have erected major legal and technical barriers to prevent third parties taking advantage of what appeared at the time to be a simple requirement; still others, as in the case of Gabon, appear to severely discriminate against third-party users[7]. The first decision to be made is therefore whether the line is to be common-user and, if so, what arrangements are proposed for this to be enforced in practice as well as in theory.

The next decision is whether it is intended the line will eventually revert to the state (either at the end of the mining lease or after some more general time period) or whether ownership of the line will continue in perpetuity. This will depend on who is developing the line: if it is a mining company then the life would presumably be linked to the mining lease but if it is an independent body or consortium then the life would generally be related to the presumed life of the infrastructure (50 years in the case of AustralAsia).

If the line is to be handed back, then the handback arrangements need to be clearly stated, as well as the conditions under which the government can step in and takeover if the concessionaire is not performing as required (as happened with Fenoco). To do this successfully, governments must have lawyers at least as good as those acting for the concessionaire and must also have a monitoring procedure with is both non-intrusive yet .

The process of tendering, concessionaire selection and negotiation of railway concessions are similar in those in other sectors. As in other sectors, care must be taken to ensure that the concessionaire is financially and technically capable of performing his obligations; this has often been a problem in railway concessions, especially where the concessionaire is not linked to a user of the railway. This is especially so if the Government is contributing a significant share of any capital expenditure as there is often pressure to ‘get the project moving’ while the concessionaire organises his finances (as with Fenoco).

Once the line is in operation, interface arrangements with other operators will need to be clear and straightforward. In the case of the Gobi mines, will they be able to run their own trains over the existing Mongolian network (and then onwards over the Russian network?). Will the existing Mongolian network be upgraded to accept 25 tonne axle-load wagons (probably the minimum that any new line should be constructed to) – and if so, when? What will the charges be for on-carriage and so on.

---

[7] The access charge for third-party users in 2005 was ten times that for COMILOG, the operator, and COMILOG traffic reportedly had priority over other users.

Developing a concession is often a lengthy process. Few have been arranged in under two years from project concept to agreement; the early Queensland agreements took far longer. In doing so, almost all governments need advice from experts experienced in this type of transaction; concessionaires, many of whom will themselves be experienced, will be obtaining the best advice they can, both locally and internationally. IFIs have often played a useful role; several of the major world mineral railways were partly funded by IFIs and their corporate experience can help to ensure any process is both transparent and in the best interests of the country as a whole. And finally, organising and completing a transaction is not cheap; few will have been done without at least a million dollars having been spent on transaction advisors of one sort or another.