

**8. CONCLUSIONS: COMPETITIVE TENDERING IN RAILWAYS –
WHAT CAN WE LEARN FROM EXPERIENCE?**

Louis S. Thompson

Thompson, Galenson and Associates
Washington
United States

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The role of **ownership** in railways is highly contentious. Railways, just like any other mode in the transport sector, are simply a collection of assets, operated by a group of people, delivering a service that is itself a derived demand. The question of who **owns** and **manages** what, though, has found very different answers in different countries and circumstances: in fact, the answer in any single country has often been unstable, seesawing back and forth depending on circumstance and political fashion.

There are very few agreed “facts” in the field of railway ownership and structure. There is usually disagreement within a country on whether there really is a railway “problem” and what it might be. It is difficult to agree on what to do about a problem (if there is one) that has many diagnoses. The public’s understanding and expectations are often influenced as much by political posture as by informed judgment. Most important, in assessing what will “work” (or has worked), is finding an answer to the question “**compared to what?**” If those involved can not agree on what the problem is, on what the appropriate solution might be, on what to expect, or on how to evaluate the outcome, it should come as no surprise that the field is a paradise for economists and politicians (not to speak of consultants).

The objective of this paper is to summarize a series of country-based papers dealing with experience gained, and lessons learned, with rail passenger franchising in Australia and the U.K. (Peter Kain), Germany (Andreas Brenck and Benedikt Peter), The Netherlands (Hans van Dijk), Sweden (Gunnar Alexandersson and Staffan Hultén) and the U.K. (Chris Nash and Andrew Smith). These interesting and unusually penetrating papers and discussions were presented at an ECMT workshop in Paris in January 2006. Where appropriate, the results of broader experience with rail concessioning worldwide have been added.

Because this is a summary paper, covering disparate (often conflicting) facts, ideas and opinions, it is inevitable that some of the nuances presented have been glossed over. Responsibility for errors in interpretation and opinion is, of course, mine. In any event, the focus of this paper is not to argue about individual opinions, but to draw common lessons even, or maybe especially, where differences of opinion remain.

1. Introduction

For a full century, from 1830 to 1930, railways were the dominant technology in passenger and freight transport. During this era, railways prospered partly from the emphasis in most economies on production of heavy tonnages of basic commodities, and partly from their effective monopoly position in most freight and long distance passenger transport and urban short distance passenger transport. Since the 1930s (though partly postponed by the impact of World War II), rail’s dominant transport role has increasingly been eroded by autos, buses and airlines in the passenger market, and by trucks, pipelines and water transport in the freight market. The improvements in competing transport technologies have been amplified by the shift in developed economies toward more sophisticated products and toward services, all of which demand faster and higher quality transport.

To a degree that differs across countries or regions, the public policy response to the emergence of new transport technologies after WW II has not always been supportive of railways. Financial support to transport in some countries (the U.S. is a particularly clear example) has been biased in favour of highways, especially heavy trucks, and water transport.¹ Many countries, even if they broadly supported railways, used the railway system as a repository of unproductive labour and/or as a way of supporting specific shippers or areas through imposed cross-subsidies.

Regulation in the U.S. (the Interstate Commerce Commission (ICC) now the Surface Transportation Board (STB)) was rooted in a 19th century image of railways as monopolists. The decisions of the ICC were often politically popular but economically perverse, frequently preventing railways from offering a package of tariffs, service quality and guaranteed shipment quantity that would permit them to compete more effectively with trucks. The ICC also forced rail tariffs up when they were seen to be “too competitive” with barges, and it hindered mergers among the larger (Class I) U.S. railways, preventing them from developing efficiencies in increased length of haul and single-line service to customers. The European experience, where national political pressures kept national boundary effects in place for railways far after they had abated for highways, is an equally damaging example of government interference.

While technology, public promotional policy and regulation do tend to intersect in the question of ownership, there is simply nothing about railways that necessarily mandates a particular outcome. The prevailing post-war European railway model was one of monolithic public ownership and operation,² and there have been a number of effectively operated railways. China and Russia operated very large and efficient, publicly owned and monolithic railways. This said, the most efficient **freight** railways in the world (the U.S. and Canada) are privately owned, though they are also hosts to two of the largest infrastructure-separated, but publicly owned, passenger rail companies, Amtrak (40 000 km – Amtrak actually owns only 700 km of line between Washington, DC and Boston, MA) and VIA (12 500 km). Similarly, three of the world’s larger and more efficient **passenger** rail systems (East, Central and West Japan rail companies) are privately owned and operated but are hosts to a publicly owned rail freight company (Japan Rail Freight Company) on the meter gauge parts of their systems. Latin American railways were wholly publicly owned and operated at the outset of the 1990s: by the end of the decade private concessionaires operated most passenger and freight services.

Two important points deserve emphasis for this discussion. First, after a long period of fixation in place due to outdated policies and perceptions, the ice has broken. Structural change may be painful and offer an uncertain outcome, but the European Commission is rightly determined that change will at least be **possible**. The commitment to change by the Commission parallels experience in a number of other countries. Second, as discussed in detail in the conference papers, there are **alternatives**, both for structure and ownership. The choice of alternative, and the method for implementing it, is not simple, but it is not impossibly daunting, either. Rightly, then, the focus can shift from “whether” to “how.”

1.1. The First Issue: “If it ain’t broke, don’t fix it.”

The most important single issue to address in railway restructuring is to reach an acceptable definition of what the **objectives** for change are: that is, what is wrong with the current railway? There are a large number of reasons for change that governments have defined, as the conference papers show. For example:

- The railway has been under-funded for years and its operating losses are too high for the state budget to afford.³ Something must be done or the railway will simply fade away (painfully). This was the basic premise of the European Commission’s 1996 White Paper and was the explicit rationale for the government of Argentina’s intervention when the old state railway collapsed. The old British Railways (BR) had been restructured a number of times, beginning in 1963, without lasting success (Thompson 2004 pp. 1-3). Alexandersson and Hultén (p. 167)⁴ refer to “the recurrent financial difficulties of the Swedish State Railways (SJ),” a problem that was mirrored closely in Germany (Brenck and Peter p. 142).⁵

- Structural change, especially separation of infrastructure from operations, can make it possible to introduce competition **in** the market (freight) and **for** the market (passenger franchises). Competition **in** the market was, of course, the explicit objective of the Commission Directive 91-440. Interestingly, the significance of infrastructure separation in fostering competition for the markets was not fully recognized at the time of the issuance of Directive 91-440.
- Competition in and for the market will enhance railway efficiency and the efficiency of the overall transport sector, and was an explicit objective in all the countries examined (see, e.g. Alexandersson and Hultén p. 168, or Nash and Smith p. 9).
- Structural change, specifically introduction of private management, could reduce the call on the budget, and/or it could produce income for the budget. In practice, there is a wide spectrum of private involvement along the path from public ownership and operation to purely private ownership and management (see Box on The Spectrum of Private Sector Involvement). Joint public-private ventures are often called Public Private Partnerships (PPPs), a poorly defined term. (See the Box on “PPPs: What Does the Term Really Signify?”).
- The private operator might do a better job of defining markets and serving customers, as discussed in Nash and Smith (p. 27).
- Structural change can also assist in decentralization from national to regional or local government. This was an explicit objective in Germany (Brenck and Peter p. 141), Sweden (Alexandersson and Hultén p. 167) and the Netherlands (van Dijk p. 129). This may be true even though the decentralized railway may have to sacrifice something in system benefits.
- If costs can be reduced and efficiency improved through better cost control and improved customer attention, then more social services can be produced for the same public expenditure. See, e.g., van Dijk p. 131.
- Governmental authorities often find it easier to regulate the private sector than the public sector, so environmental protection, for example, may well be better under a regulated private operator.
- Structural change, including introduction of a private role, can more clearly ring fence and target public funding to specific purposes (and keep it out of prohibited areas).
- Incorporating the private sector can (it is hoped) transfer “risks” from the government to the private sector.

The Spectrum of Private Sector Involvement

Though the conference was about “franchising,” it will be useful both to define “franchising” and to put it into context. In fact, “franchising” lies somewhere in the middle of the range of private involvement possibilities:

- Public ownership and management in a government Ministry.
- Public ownership and management with policy and funding control in a Ministry, and the management provided by a government “enterprise.” Commencing in the 1970s, the relationship between Ministry and enterprise was sometimes expressed in the form of a more or less explicit contract (often called a “Contract Plan”).
- Contracting out of limited functions (e.g. cleaning or food).
- Management Contracts – private management takes the cost risk of a totally specified service in lieu of Government management.
- Gross-cost Franchises – the franchisee accepts the cost risk of a service while the franchiser specifies the services and takes pricing, demand and revenue risks.
- Net-cost Franchises (or concessions) – the franchisee takes a share of demand and revenue risk along with cost risks, and is compensated for net support needed. Government risk is limited to a specified share of demand risk along with risks (relationships with other actors in the sector, policy change, etc) that the franchisee is unable to assume. Government usually makes most pricing decisions and retains a significant role in service specification.
- “Commercial” Franchises (or concessions) – the franchisee assumes most demand, revenue and costs risks, and operates essentially as a private owner for the term of the agreement. The Franchisee (or concessionaire) acquires much more pricing authority.
- Partial Privatization” – asset ownership and most risks are transferred to the private owners, but Government retains an ownership share, thus keeping a voice in management and, in effect, retaining a share of risk.
- Full Privatization, but with significant regulation – Government retains a voice in decisions (such as pricing or entry) in significant areas of activity.
- Complete Privatization without regulation (except for health and safety).

“Franchise” and “Concession” do not have clear meanings. In some cases, such as a brand franchise (McDonalds), the usage of “franchise” is generally accepted. In other cases (the Argentine rail passenger concessions as compared with the rail passenger franchises in Sweden), the distinction may be arbitrary. To the extent that a difference exists, it probably hinges on the degree of revenue risk that the franchisee accepts. Kain argues, for example, that a “gross-cost franchise” is not a true franchise, but is rather a form of management contract (Kain p. 59). If so, then the terms “franchise” or “concession” should be limited to “net-cost” or commercial arrangements.

Franchising or concessioning are only used when full public ownership and provision is not tenable because of poor quality, inefficiency, or political interference under public control while, at the same time, privatization is not acceptable for political or economic reasons. Mere “corporatization” of a public agency – creating a publicly owned “corporation” and organizing it along lines of business – does not constitute management contracting, franchising or privatization: these only occur when a privately owned and managed company is involved.

PPPs: What does the Term Really Signify?

The term “Public Private Partnership” (PPP) can be ambiguous. In this paper, it will be taken to mean that the private role is something more than a mere supplier: that is, the private “partner” will be expected to make meaningful financial, marketing, operational and policy contributions to the success of the venture. By this definition, out-sourcing is not a PPP, and neither would be total or full privatization.

It is worth emphasizing the word “**partnership**,” because the significance is often lost in academic or public sector discussions. In this context, a partner is a co-venturer to be respected and understood, not a party to be exploited in an attempt to cleverly shuffle off a burden. Respect and understanding can be improved by several observations:

- The private partner will be driven by **financial** objectives whereas the public partner will be (in principle, at least) driven by **economic** and **social** objectives. This means that, in general, the private partner will seek higher rates of return and will, as a result, be more focused on the short term. It also means that the private partner will not inherently be driven to reach admirable political and social objectives such as economic development, access for the poor, reduction of pollution and congestion, nor will the private partner be as comfortable with vague or conflicting objectives as the public partner is constrained to be. *In fact, the overarching challenge of PPPs is designing the relationship so that, through direct or bonus/malus incentives (shadow tolls, subsidies, taxes, penalties) the objectives of the two parties are reasonably defined and adequately aligned.*
- Neither party has a convincing claim to the high ground in intelligence or sincerity of motivation. At the operational level, this means that attempts by either partner to out maneuver the other by clever design or wording of contracts are likely to fail: at a deeper level, it means that partnerships work better when the partners can rely on each other, not resolve issues by conflict. In particular, it is helpful if the public authorities remember that wariness about public sector failure or abuse is as important for private partners as private failures are for the public partner: both have good reasons to be wary.
- The two points above come together in a particularly forceful way in the assessment of risks. The private partner will be wary of financial risks because a mistake can be painful and immediate: risks are only acceptable if they can be covered (through insurance) or if the expected benefits are much greater than the potential costs **and** the adverse risks are within the resources of the company to absorb. It is true that the public partner may be more willing or able to undertake certain risks than the private partner because the possible economic and social benefits may outweigh financial losses, or because the public partner has much larger resources to bear the risk. It also may be true that the private partner may simply be better at calculating the real risks than the public partner. True partners try hard to reach a fair balance in all things, including risk.

It is not necessary to argue that all of these potential objectives are valid in all situations: that should be a matter for careful analysis in each case. Unfortunately, countries have often neglected to comb through the list to define and prioritize and review the consistency of their objectives in advance. In part, this is a result of the complexity of the issue and a lack of detailed experience with defining and managing change (especially franchising and privatization) in the rail sector: the BR

privatization, in particular, was ahead of experience elsewhere in Europe (though there was experience from Japan and Argentina that was not fully appreciated at the time in the U.K.). Typically, though, the political process blurs the issues since railway reform is inherently a political challenge and it is difficult to form a coalition where all members agree on all objectives and priorities. Unfortunately, if the objectives are unclear, or (as is more common) at least partly inconsistent or even conflicting, it is much more difficult to formulate a “workable” plan of action *ex ante* or to agree, *a posteriori*, whether the plan was “successful”.

I would like to emphasize this point again: if a government cannot decide **why** it is making a change, it is remarkably difficult to decide **how** to implement it, or to agree afterward whether the change was good or bad. The U.K. experience shows that many railway reform programs have been infected with this fatal virus, a problem also seen in Sweden (Alexandersson and Hultén p. 182 “The Swedish rail reforms ...have hardly followed a rational strategic plan...”). It is probably significant, also, that the Strategic Rail Authority (SRA) in the U.K. was only created about five years **after** the franchising began (and subsequently abolished). Nothing is more important than having an agreed and consistent set of objectives at the outset.

Another typical problem of setting initial objectives is failure to define the outcome of the “do nothing” alternative. Absent a reasonable idea of what would have happened without change, the outcome tends to be compared with often unreasonable ideas of perfection rather than with what would probably have actually happened without reform. The Nash and Smith paper (p. 9 and p. 27) is one of the few to try to assess results in the context of what might have happened otherwise. Both in planning change and in evaluating the results, it would be helpful if the phrase “**compared to what?**” is prominently remembered. If, after many years of struggle, the existing railway has run out of steam, financially and managerially, as a result of a failure of public management, it would be helpful to keep this in mind later when the proposed reform program faces its own problems.

1.2. The Second Issue: Define the structural framework and shape the information

Though the point is obvious (with experience), it deserves emphasis that the potential role of the private sector is strongly dependent on the structural form that a country adopts. If the railway remains a monolith, with only accounting separation, then the only available bite is probably too large for the private sector to swallow: indeed, a common way for state-owned railway management to resist railway restructuring, especially private involvement, is to insist on keeping the railway as a monolith that is too large to be purchased or managed in a single piece by the private sector.⁶ Put another way, the structural model can either hinder or facilitate the ability to involve the private sector when this is an objective: if the available pieces are too large, or if the information available is not sufficient for adequate financial analysis, then the government has, by default, elected not to involve the private sector. On the other hand, as the Brenck and Peter paper acknowledges, proposing a role for the private sector in pieces that are too small can create problems of inefficient scale (p. 151) and integration with the larger system (p. 160). In this regard, the separation of infrastructure from operations clearly facilitates the definition of operating services that will be more appropriate for franchises or concessions. Kain argues (p. 51), correctly, that separation of infrastructure from operations can sacrifice system economies and integrity: the question (as always) is whether there are offsetting benefits to be gained.

Information is also critical, as a separate ECMT paper (ECMT 2006) discusses in more detail. The paper’s conclusion is that the information now being developed by the E.U. railways is not adequate for effective public oversight, especially in the analysis and determination of appropriate access charges or in ensuring that public support is spent for, and only for, the purposes allowed. Before the private sector can confidently be involved in a partnership with the public sector – and

management contracting, franchising, concessioning and partial privatizations inevitably are **partnerships** – the public information must be available in the right level of detail and it must be accurate. As discussed below, perhaps the single most important factor in defining and managing the risks of all management reforms (including franchising) is the simple question of the availability of accurate, timely and sufficient information about the past and likely future performance of the railway system at the level of the proposed change (each franchise or freight operating company, for example).⁷ For the most part, such information is not available today. In the absence of such information, it is of course always possible to develop franchise or privatization agreements, but the likelihood of unpleasant surprises and the related uncertainty premium will be much higher.

2. The Spectrum of Approaches

Table 1 and the Box on the Spectrum of Private Sector Involvement outline an important fact – there is a range of approaches for rail structure within which franchising is a mid-point. In this context, the *status quo* for most of the larger E.U. rail systems (public ownership and operation) is the starting point for discussion. Fully private railways – the current position for the U.S. freight railroads, three of the Japanese passenger railways, and E.U. (U.K. and Estonia) railways – could be an eventual end point. The critical point is that not all of the services of any given railway must be treated the same way: “mix and match” can be a better approach.

Table 1.

Public and Private roles						
Type of Function	Traditional Public Roles		Franchising/Concessions		Privatization	
	Public Ownership and Mgt	Mgt Contracting	Gross Cost	Commercial Risk	Divestiture	New Private Entry
Infrastructure	X	X	X		(Railtrack?)	
Freight	X			?	X	X
Passenger						
High Speed	X			X		
Conv. Intercity	X		X	X		
Rural/regional	X	X	X			
Suburban	X	X	X			

	We are here today
	Long-term option
	Potential step or interim option

Source: Mr. L. Thompson, Thompson, Galenson and Associates.

It seems likely that most E.U. rail infrastructure (like E.U. highways and waterways) will remain publicly owned and operated. Involving the private sector, if at all, is likely to start with contracting-out or possibly management contracting. It seems also possible the infrastructure could be shaped into a gross-cost franchise; but, experience with Railtrack, and the emerging experience in Estonia, suggests that transfer of commercial risk or outright privatization for infrastructure should be viewed with caution because of the perceived criticality of the rail infrastructure to the national transport network, and because conflicts between system users can easily escalate to the political level.

The approach to private involvement in freight services could well be different from passenger services. Given that the objective in freight seems to be open access competition (competition in the

market on the same lines), the continued rationale for public ownership and operation of rail freight services in Europe seems questionable, certainly in the longer term. No matter how carefully the accounting separations are drawn, the competition between public and private freight operators on the same tracks will be inherently unbalanced. A public freight operator will always be burdened with bureaucratic requirements and social burdens of a public operator whereas the private freight operators will have more control over their costs, prices and services.⁸ At the same time, the public freight operator will have access to (open or hidden) public sources of finance that are denied to a truly private operator, and public (freight or passenger) operators (supported by their unions) always have the ear of politicians, as Alexandersson and Hultén make clear in the Swedish case (p. 184). The logic suggests that freight operators will either remain wholly public or, when enough new competition arises, will be mostly private. In addition, the open access policy is inherently in conflict with the idea of franchising or concessioning of freight services because there is essentially no market to franchise. For freight, involving the private sector will eventually mean privatization.

Gross and Net Cost Contracts

When a competitive tender is let out as a “gross cost” contract, the contracting agent transfers the cost risk but retains the revenue risk. This is often not classed as a “franchise.” When a “net subsidy” contract is signed the franchiser transfers the revenue risk to the winning bidder. Revenue is less predictable than cost, especially in the case of passenger rail services where exogenous factors will adversely affect the ability of franchisees to develop the expected patronage and traffic growth.

As Figure 1 also shows, passenger services may fall into two market-based groups, those with a mostly commercial rationale (high speed rail and conventional intercity passengers) and those with a mostly social orientation (generally suburban, but sometimes including lightly used regional services). The commercial group would be more suited to net-cost commercial franchising or concessioning because it can be market driven and (depending on the level and structure of access charges) might well be financially viable. By contrast, the social group is better adapted to gross-cost contracting because, with pricing and output determined by public authorities, commercial factors do not play a major role in designing and managing the franchise.

It is at least worth mentioning that there are other examples of entirely private passenger railways. About 30% of the line kilometres of the Japanese railway network have always been owned by a large number of smaller operators. These companies are parts of much larger conglomerates, in which the rail portion serves to promote the value of the other properties of the conglomerates (including hotels, housing development, baseball teams, resorts, etc). The Hong Kong Metro system is another example of bundling of the rail transport function with real estate development. Although real estate was only a minor part of the total costs of development of the systems, the Metros in Washington and San Francisco generated significant support from “value capture” in which at least part of the value created by the system was recaptured through ownership or control of the development of real estate properties near to the systems’ stations.

2.1. What is franchising or concessioning?

Franchising or concessioning involves a series of steps:

- The government, as owner of the assets (this can involve both infrastructure and rolling stock, depending on the arrangement), defines the assets to be granted, along with the rights

and duties that will be transferred with the franchise. In some cases, a part of the assets is franchised while other parts are leased or even sold.

- The franchise or concession agreement details the objectives of both parties, and attempts to specify and allocate the risks involved.
- Normally the government retains underlying “ownership” of the assets, or it receives ownership (for example, in the case of a Build, Own and Transfer (BOT) concession) at the end of the specified term.
- The franchisee or concessionaire (operator) provides services, may provide some of the facilities, and assumes the specified risks.
- The agreement has a defined term (in effect, privatization has an unlimited term).

In the railway case, especially with infrastructure separation, mixed solutions are possible. For example, the infrastructure could remain under public control while the freight services are privatized; at the same time, commercial passenger services could be awarded under a contract that transfers commercial risks while the social passenger services could be awarded under gross-cost franchises. As Figure 1 shows, many combinations are possible, each of which might be handled somewhat differently.

2.2. The Dimensions of franchising or concessioning

No two franchise or concession agreements are exactly alike. In fact, each will have a specific set of dimensions.

The package size can vary widely. For example, one of the Argentine freight concessions included 5 000 km of line, and one of the Brazilian concessions carries nearly 100 million tonnes of freight annually. The 8 passenger concessions in Rio de Janeiro and Buenos Aires averaged 140 km of line, 63 million passengers and 1 235 million passenger-km annually. The U.K. passenger franchises range from 14 route km to 4 000 route km (average is about 1 000 km) and carry from about 1 million to nearly 150 million passengers annually (average is about 40 million)⁹ whereas the passenger franchises in The Netherlands may each only accommodate a few million passengers and average about 38 km (communication from Van Dijk). In addition, responsibility can be divided in different ways: the Australian, Argentine and Brazilian passenger concessions received the control and exclusive use of the infrastructure (and the Brazilian concessionaire bought the rolling stock) while the U.K., German, Swedish and Dutch franchises only gained secured access to the infrastructure and leased most or all of their rolling stock.¹⁰

The agreement term can vary from 1 to 2 years (some early Swedish agreements on passenger franchises) to 50 years (the Mexican freight concessions). In general, the shorter terms have been used when government wants to retain a strong voice in the performance of the franchise while the longer terms were used when government felt that it had less interest in detailed control and involvement in the franchise decision-making. Accordingly, because they are socially and politically sensitive, passenger franchises have tended to have shorter terms (5 to 20 years, but averaging 5-6 years) as compared with freight concessions (25 to 50 years, with 30 years being typical). The U.K. privatization of freight services (similar to the privatization of the Canadian National Railroad and the three Japanese main¹¹ island passenger railways) and of passenger rolling stock (the ROSCOs) and infrastructure (Railtrack followed by Network Rail) is the extreme case of long term transfer of control.

The disposition of rights, assets and investments can vary. In the original UK case, Railtrack, the Freight Operating Company (EWS), and the ROSCOs received ownership of their assets, whereas the operating franchisees received control of a service territory and a labour force. Figure 2 gives an example of differing approaches to this distribution. Other countries (Japan or Brazil, for example, or other E.U. countries) would look somewhat different, depending on the national objectives involved. It would be useful for franchising authorities to identify where proposed franchises fit in this framework.

Figure 2

Example Location of Rights, Assets and Investments

	Public		Private	
	Argentina	UK	Argentina	UK
Infrastructure Assets	Ownership retained	Sold		Privatized
Infrastructure Use			Exclusive concession	Non-exclusive franchise
Freight Assets	Leased	Sold	New equipment purchased or leased	Privatized
Freight Services			Exclusive concession	Open access, no exclusivity
Passenger Assets	Leased	Sold to ROSCOs	Old leased, new purchased	Leased from ROSCOs or leased separately
Passenger Services			Exclusive concession	Non-exclusive franchise

Source: Mr. L. Thompson, Thompson, Galenson and Associates.

The degree to which service characteristics need to be specified must be decided (see Box “Specification of Services”). For freight, for example, the general practice in the Latin American concessions was to leave service frequency, on-time performance and tariffs almost totally to the concessionaire’s judgment of the market with only limited regulatory oversight of maximum tariffs and safety. For the Argentine passenger concessions, a minimum service frequency and quality, and the maximum tariff, were specified, but the concessionaire was given freedom to exceed the minimum service levels, or to charge less than the maximum tariff. In the U.K. franchises, desired service quality and quantity were identified, and the basic tariffs (covering about 40-45% of the trips) were regulated. Railtrack’s access charges were specified at the outset, with the regulator having authority to grant increases when justified, and with the franchisee held neutral to changes in access tariff increases. To the extent that the franchise is a social and subsidized operation, the degree of specification will be higher: where the concession is commercial (or the service is privatized), the degree of specification can clearly be lower.

A related question is the location and degree of authority over tariff setting. In a management contract (or, often, in a gross-cost franchise), the operator is in effect serving as a revenue collection agent, while charging tariffs specified by the franchiser. As the franchise becomes more commercial, the balance of authority could shift to the franchise, with government retaining some regulatory oversight. In the privatization case, the new operator should be in control, with only limited regulatory oversight to prevent abuse of monopoly power.

The special case of setting infrastructure access tariffs is particularly important because of the impact that access charges have on the performance of the operators. A significant problem in the U.K. franchising was that the access charges had not been fully specified before the franchises were awarded, forcing the government, in effect, to assume the risk of Railtrack's ultimate performance.¹² The issue of access charges has been discussed extensively in ECMT 2005. The critical point in this discussion is that the structure and level of access charges, and the degree to which they can be specified in advance, will necessarily affect the approach to franchising, and will have a strong impact on the competitive position of, and thus the value of, any freight services to be privatized.

Specification of Services

A critical question for franchisers is the degree to which the service to be provided should be **specified**, or whether it can simply be left to the discretion of the franchise operator reacting to market forces. In general, the degree of specification tends to increase with the level of support being paid (gross-cost franchises); operators of commercial franchises usually demand freedom to define the services to be provided.

Demand determinants. The primary determinants of demand are usually price, service frequency and trip time: specification of one (or all) will affect demand and costs, often significantly. If the franchiser wishes, for social reasons, to exercise the authority to determine price, frequency or trip times, it should be at the beginning of the franchise so that the full impacts on demand and costs (investment and operations) can be accommodated. Later changes should be subject to an agreed adjustment of the franchise compensation.

Measures of service quality. Franchisers often wish to specify aspects of the quality of service provided. Most franchising authorities have a version of a performance regime measuring on-time achievement, cleanliness, safety, overloading (the result of the demand and capacity interaction, sometimes aggravated by pricing) and passenger complaints (which can be a subjective combination of all measures). These can be connected to a bonus/malus compensation system (see, e.g. van Dijk, p. 135 or Brenck and Peter, p. 154 and 156). **If the franchiser specifies service quality, however, an oversight regime is unavoidable, with all that implies in data production and quasi-legal regulatory proceedings.** (van Dijk, p. 133 and Kain p. 82).

Investment requirements. The E.U. experiences demonstrate the importance to local authorities of improved rolling stock. In other cases (Argentina and Brazil), concessionaires have been required to commit to specified investments in either rolling stock or even infrastructure. Specifying investments poses two challenges: how to specify performance desired rather than specific hardware, and how to deal with the conundrum of specifying long-lived investment in a short-term franchise.

Other service characteristics. There are other potentially important service characteristics, including class of service (first versus tourist), reservations (important for inter-regional and intercity services), amenities (such as food), and interconnection with service provided by other franchises or with the national railway operator. The importance of these will depend on the type of service and on the role that the franchise plays within the larger rail (and passenger transport) sector.

The method of payment to (or, in the fortunate case, from) the franchisee poses a number of choices. In the case of **positive** payment streams (when the franchisee or concessionaire pays the government), franchisees or concessionaires have either been asked to capitalize the entire value of the franchise in advance in order to maximize the short-term inflow to the treasury,¹³ or a mixture of up-front and payment streams over time has been chosen. Most of the **negative** franchises (when government pays the franchisee or concessionaire) are based on a predicted (or actual) stream of

support payments.¹⁴ Any of these approaches can be chosen; but, there is a clear tradeoff between the degree to which predicted rather than actual results form the basis of payment and the uncertainty premium and discount rate that potential bidders will use.

This tradeoff is one of the key elements determining whether risk transfer is economically **feasible** (it is always **possible**, but at an ever increasing price).

Conditions for renegotiation are important. Very few concessions or franchises have survived totally unchanged because it is normally not possible to write an agreement that covers all contingencies, particularly in longer franchises or concessions. When the unexpected occurs, as it will, both parties need to know how to change the agreement. The options are voluntary renegotiation between the parties, arbitration, litigation or regulation, or some agreed combination.

3. Risks and the Sharing or Transfer thereof

“Risk,” and how to deal with it in rail passenger franchise agreements, is a vital issue. In practice, there are a large number of different risks, each of which may require a distinct approach in sharing and mitigation. Risk transfer is always possible, but never without cost. There is no particular point to be served in arbitrarily retaining or transferring risks: the question in each case is to find the optimum mix of sharing and mitigation that minimizes the total cost of the franchise. Various types of risk will find different answers depending on a complex mix of circumstance and country conditions.

Demand, prices and revenues. The definition of demand (usually the number of passengers handled and passenger-km produced) to be used in franchise planning may not be simple. In practice, there are often multiple lines, multiple classes of service, and difficulties in identifying which demand represents a social commodity; simply to state the demand objective as the aggregate number of passengers and passenger-km may not suffice to highlight the needs of the franchiser. Specifying prices is also complex; in practice, taking all services into account, there can be an immense number of prices, for which simply stating an average will not actually specify what is desired. The U.K. example, in which only around 40-45% of prices were specified, tracked and regulated, is illustrative. In both cases, the public agency faces a risk that an unclear specification will yield an unexpected result. Revenue (the real objective of the private partner) is the product of demand and price, and is thus doubly difficult to predict. The main risk mitigating measure – careful analysis of historical demand and cautious extension thereof – is critical, but is often unavailable if the existing operator has not collected historical data or chooses to conceal it (Alexandersson and Hultén, p. 180). Lacking historical information (always the case for new services), the parties can choose to share the risk either by including a risk premium in the expected support or by adopting various forms of risk sharing when demand is above or under the expected targets. The importance of the tradeoff between information and risk premium cannot be overemphasized.

Operating costs. The expected level of demand and thus the required service level is one of the primary drivers of operating costs and, to the extent that demand is uncertain, then costs will also be at risk. It is common for the private partner to accept the operating cost risks for an agreed level of demand, but for the franchiser and franchisee to share operating cost risks when demand differs widely from the level expected. Again, past experience is a primary basis for decisions as to realism and risk and the primary method of mitigation is to acquire accurate information about past results to use as a point of departure.

Exogenous factors. Underlying determinants of demand and costs can dramatically change performance of a franchise, but are totally beyond the ability of either party to predict or fully control: GDP growth, exchange rates, inflation and technology can all matter, especially in the longer term. In

fact, the level and structure of access charges is exogenous from the point of view of the system operators. The mitigating approaches – demand risk sharing due to GDP changes, stating costs or support levels in Euros or U.S. dollars, stating amounts in constant currency values, benefit sharing for new technology and, most important, automatic adjustments such as price indexing or for changes in access charges – are well known (Kain p. 59 and Brenck and Peter p. 159). A parallel measure – limiting the length of the franchise so that the issues can be addressed in a reasonable time frame – is also useful.

Policy and government action change. Franchising inherently represents a commitment of government policy and resources over a period of time greater than any current government can really guarantee. In Brazil, for example, there was a legal opinion that the Constitution prevented the government from making multi-year commitments to fund a negative concession: only positive concessions were acceptable. The *de facto* take over of the privatized railway infrastructure by the Government of Estonia and its renationalization is another example of unpredictable (at the outset) change in government policy. Other changes, for example in labour laws or environmental requirements, can act to negate a government commitment made under a franchise agreement. Nash and Smith find, for example (p. 28), that fuel prices, health and safety legislation, anti-discrimination legislation and a general tightening of standards may have outweighed the benefits the franchises received in unanticipated economic growth. Some of the risks, e.g. labour negotiations or fuel prices within a given band, are normally transferable. Mitigating measures for the others include various kinds of cost indexing and national or international arbitration agreements wherein both parties have protection against arbitrary actions.

Investment risks. The major investment risks involve the capacity risk of unanticipated demand (below or above expectations) and a disjunction between the long working life of assets (especially rolling stock) and the generally shorter life of the franchise. Capacity risk is usually shared: if demand is within agreed parameters, it is the responsibility of the private franchisee, but is shared with government if it is outside the parameters. Investment horizon risk can be mitigated either by increasing the life of the franchise (the approach in the U.K. Phase II franchising) or by in effect privatizing the responsibility for the long-lived assets. Leasing (the U.K. ROSCOs) is a good example of disconnecting the franchisee's risk of owning the rolling stock. Brenck and Peter (p. 150) discuss another approach: some of the German franchises involved a guaranteed re-purchase (or resale) value of rolling stock at the end of franchises, thus ensuring that the franchisee would face much lower risk of loss of value.¹⁵ The creation of Railtrack (later Network Rail) accomplished the same objective (more or less) in the infrastructure area. In general, separating infrastructure from operations will have the effect of freeing the operators from the long-term investment horizon needed for infrastructure.

Access charges. Infrastructure access charges can be a major component (up to 40%) of the operating costs of a rail passenger franchise. Depending on the structure of fixed versus variable charges, access charges can pose a significant financial risk, especially to smaller franchises, if demand fluctuates beyond expected levels: they can lead to surplus traffic and capacity shortages. For subsidized franchises, the risk can be reduced by holding the franchise harmless for changes in access charges (as was done in the U.K., see endnote 11). For unsupported franchises (and freight operators) the risk can be mitigated by regulatory oversight of the access charge regime and by adopting the recommendation to set rail infrastructure access charges at marginal cost (as indeed European Union law requires). Where the infrastructure agency attempts to collect some of the difference between marginal cost and financial cost through access charges (also permitted under the EU law), relying primarily on variable rather than fixed charges can reduce the risk to the franchisee.

3.1. *The special case of privatization*

It is unfortunate that most of the attention devoted to the U.K. case seems to have been focused on passenger services, because the freight services are also important – and may be even more important in the continental context.¹⁶ The U.K. freight transactions were actually **privatizations**: that is, the U.K. freight companies (and the ROSCOs and Railtrack) were formed from the BR operations, and the companies were sold as going concerns (existing business, employees and assets) to the highest bidder. The freight companies were sold with guaranteed access conditions, but with no exclusivity. Competitors could enter any and all markets and, in fact, competition among existing and new freight carriers has arisen.

I believe that the current status of the state-owned ECMT (especially E.U.) rail freight operators is unstable. The existing public operators will have increasing difficulty competing with private entrants, especially in niche markets where service quality demands and existing tariffs are high. Some private, niche operators such as Rail4Chem are already emerging. At the same time, so long as the state-owned operators remain, private entry will be constrained by the advantages that state-ownership inevitably confers. As discussed above, rail freight is probably not amenable to franchising because, with open access, no degree of exclusivity can be conferred. As a result, privatization of the rail freight operating companies (but, of course, not necessarily the infrastructure) is a clear option.

There are many cases of integral (infrastructure and operator) privatization of railways, both freight and passenger. The entire U.S. rail freight system is private, and the privatization of the Canadian National railway in 1996 created one of the larger freight systems in North America.¹⁷ In financial terms, the sale of the stock in the three main island Japanese passenger railways (East Japan, Central Japan and West Japan) was one of the larger transactions to occur anywhere. The Northern railway in Chile was sold outright, as were the two largest Brazilian rail freight companies (EFVM and Carajas). The Estonian Railway was an integral privatization of freight with infrastructure, but with a requirement that access be granted to freight competitors as required by E.U. law.

Infrastructure separation (whether or not the infrastructure is privatized) creates the opportunity to privatize some of the operating pieces. For example, along with the freight privatization, the U.K. government privatized a large range of ancillary functions such as track maintenance, real estate, etc. A particular advantage of privatization of some of the operating functions, specifically freight, is that it creates the opportunity to erase the national boundary effect for the operator. Railion is an example that, if ever privatized, would create a truly international rail freight operator. The emergence of large international operators, though advantageous in the sense of seamless service, may simultaneously raise the issue of the competitive structure of Europe-wide rail freight, especially if some are government owned and some privately owned.

A question specific to privatization is whether to sell the freight company as a going concern (as was done with the U.K. freight operators and the Estonia Railway) or simply to sell the assets to the highest bidder. Going concern sales have the advantage that they can be designed in advance and make continued operation easier, but they carry with them all of the obligations of the existing operator. Asset sales permit the new operator maximum flexibility, especially vis-à-vis the labour force, but often leave the seller with residual obligations to deal with.

My overall conclusion for rail freight is that we should not focus just on franchising or concessioning because there will be cases in which privatization will be more appropriate. Put another way, the full answer to railway structural change involving the private sector may well be a mixture of approaches that may be different for every country, within a general model and set of limitations. The best mix for the overall railway may well involve public ownership and management, private

operation of public assets (management contracting, franchising or concessioning) and some outright privatization.

3.2. Options for awarding franchises or for privatizations

Assuming that all of the questions of package design and dimension have been settled, there are a series of issues on how to award the package.

Some countries have chosen to negotiate directly with potential operators. This turned out to be the predominant approach early in the Swedish, German and Dutch cases, partly for lack of experience and partly because of political pressures to protect the existing state operator. Negotiation without competition violates the normal approach to spending public money, and tends to reduce the potential savings available from franchising or privatization. Van Dijk (p. 133) found that savings from negotiated contracts were far below savings from contracts for which there was competition. However, there may well be cases in which the package size is too small, or the acquiring or managing authority is itself a public agency (for example, the U.S. Federal Government sold the Alaska Railroad by direct negotiation with the State of Alaska), for which direct negotiation will be appropriate. In addition, direct negotiation of short-term contracts may well be an excellent way of reducing risks in managing the transition from a fully public regime to an eventual regime of longer-term franchises.

Brazil furnishes an interesting case in that its agencies are required to sell companies or franchises through open public auction, and at least the railway concession auctions have been reasonably successful and competitive. It is not clear why the open auction approach has not been used for franchises elsewhere more widely given the advantages that open auctions have in reducing the effect of the “winner’s curse”.¹⁸ Kain (p. 48) argues that the award of a franchise is complex and open bidding would have comparability problems. This said, with proper specification and bid review, the problem could be reduced (of course, there is also a problem with evaluating non-comparable closed bids as well).

The normal form of franchise or concession sale has been single stage, best offer¹⁹, sealed bidding. In some cases, the bidding or auction has been subject to a minimum price (that was public in Brazil and secret in Mexico) in an attempt to overcome potential collusion among bidders when several franchises are to be awarded.²⁰

There is also a choice between single stage competition, in which all bidders are welcome, and multi-stage bidding in which some bidders may be winnowed out at each stage. In the Argentine passenger concessions, for example, the first stage was based on demonstrated financial capability and professional competence: bidders received a pass/fail rating and unqualified bidders were eliminated. In the second stage, qualified bidders submitted their business plans showing expected demand and revenue levels (maximum fares were specified) along with their operating plans, including staffing and equipment: unrealistic bidders were given a warning about the questionable aspects of their plans which, if not rectified, caused disqualification. Finally, the remaining bidders submitted their best offers. The potential for manipulation of the bidding process is also a concern. There is no easy solution.

The danger in admitting all bidders – common in public procurements – is that an unqualified or unrealistic bidder may win, and often does. Kain argues that there is a clear pattern of bids for unrealistically low subsidies and high premium payments to government winning passenger franchises in the UK. Against this must be weighed the difficulty of making qualitative judgments about “qualifications” or “realism,” especially when the bidders may know as much or more about the franchise than the franchiser does (for example when the existing railway staff are allowed to bid). In

Mexico, a particular rail freight franchise received three bids, the first two for around US\$ 550 million and the third for US\$ 1.4 billion. Despite skepticism, the “cursed” winner has survived reasonably well. It is also worth pointing out that passenger demand in the U.K. has in fact grown by 50% in the first 10 years of franchising – far, far above the expectations of the Government at the outset. Governments and their experts can be wrong, too.

A related choice is the use of qualitative, weighting formulae (sometimes called “beauty contests”) versus stricter monetary evaluations. Award formulae have superficial appeal because it is in fact difficult to quantify everything. One obvious problem is that the weighting formulas adopted can seriously distort the result. For example, if a perfect bid might receive 100 points, of which only 20 are for the monetary value of the bid while the others are awarded to more qualitative factors such as degree of local participation or percentage of existing workers hired, the outcome can be subject to non-transparent manipulation. Weighting formulae can easily contain conflicting factors, which is exactly what happened in the Argentine freight concessions where points were awarded both for the money offered and the number of existing employees to be hired. The outcome of such conflicts is unpredictable and can be perverse. By contrast, a strictly monetary, best offer award is clearer but can also be subject to gaming when there are a number of elements to be combined in the final bid amount, for example when concession payments are combined with an investment flow.²¹

Many franchising situations involve a series of payments over time, including support that can be negative or positive, and required investment. If bidders have different views of the levels and timing of the payments, their bids can only be made comparable by using a Net Present Value (NPV) calculation, including a specified discount rate to be used by all. An NPV award approach was quite successfully used in the Argentine passenger concessions, where bids were awarded both on a series of support payments and a set of required investment projects that bidders were allowed to schedule in accord with their demand projections and operating plans. A similar approach was used in the award of the rail passenger concessions in Rio de Janeiro (suburban services and the Metro) where both support (or payment) and investment flows were involved. The U.K. franchise bids were also evaluated on an NPV basis.

Although NPV adjustments are the only valid way to equate values over time, they do create a potential “backloading” problem, especially at high discount rates. In these cases, the bidders have an incentive to distort their bids by shifting positive values (ridership forecasts) forward in time and shifting negative values (investments or costs) backward. Some partial countermeasures are available. In Buenos Aires, for example, where investment backloading was a potential problem, the Government placed a limit on the total percentage of the investment program that could be planned for any single year.

Another potential problem to be aware of in franchise bidding occurs when there is a bidding consortium in which the time pattern of one member’s involvement is significantly different from that of the others. For example, if there is significant construction at the outset, followed by minimal maintenance, the construction company member of the consortium may want to complete its work and then abandon the consortium. It is important to review the membership of a consortium and the incentives of each member to ensure that all members will stay the course of the consortium. In some cases (arguably for urban metros, for example), where the franchise might break even on operations but require a large capital investment, the bidding criteria might assume no operating support and instead be based on minimum capital required from government.

Some observers argue that at least one reason for involving the private sector in railways is that the private sector can do certain things better than the public sector can. In principle, the private sector can be more flexible and market-responsive in its marketing and pricing, and can operate more

efficiently than public sector enterprises (especially in its relations with labour). This can be a particularly significant issue when the public sector enterprise is required to compete more or less directly with the private sector (rail freight versus trucking or intercity rail passenger versus airlines and autos).

Strictly following this logic, commercial franchises and privatizations should be awarded with a minimum of definition or specification by the government authority, with maximum flexibility for the new private managers to improve the commercial aspects of the operation, and with service specification limited to those parts where social objectives are paramount. By contrast, the **actual** process of public procurement places considerable weight on reaching clear and transparent decisions among fully comparable choices, which leads to detailed and rigid definitions and specification (see Box on Specification of Services). The dilemma is that the more the franchise conditions are defined or specified, the less the franchisee is able to generate any benefits from innovation. Total specification of everything to yield perfect transparency and comparability, would eliminate any “flair” at all, thus negating at least some of the reasons for franchising.²²

A particularly serious illustration of this dilemma is with the existing labour force. Governments all too often wish, for political reasons, to require a franchisee to assume the entire labour force under the existing conditions. Indeed, some E.U. countries (The Netherlands – van Dijk, p. 134) have labour laws requiring this to be done. Since labour represents the largest single expense category of most passenger railways, such a requirement effectively ensures that critics of the process will later be able to show that franchising generated few economies. The alternative approach – allowing the labour force to be adjusted but paying to cushion the impact of change on labour – works better (Argentina, Brazil, Mexico, Poland and Estonia, for example), but also reduces the short-term financial benefits of restructuring.

There are further tradeoffs between control of tariffs and government payments (or receipts). For example, especially in passenger franchises, the government agency faces a direct tradeoff between setting a low tariff and the support payment it has to make: the lower the tariff, the higher the support. Gross-cost franchises make the issue transparent, because policy makers have to pay directly for their decisions, but have the effect of exposing governments to an unpredictable and possibly uncontrollable fiscal obligation (as the British Government discovered when the costs of Railtrack and some of the franchise costs ran out of control). In the freight case, controlling some of the tariffs (or setting other conditions such as a minimum labour force) reduces the price that purchasers are willing to pay for the business and/or raises other freight tariffs, thus defeating the overall objective of reducing overall transport costs or shifting freight traffic from road to rail.

3.3. The specific challenge of public procurement

Rail franchises are difficult and complex and the outcomes have been uncertain, as the conference papers demonstrate. It is worthwhile asking, however, whether at least part of the problem is attributable to a misfit between the normal roles of public procurement and the challenges of “procuring” a franchise rather than the inherent unsuitability of franchising to deliver rail passenger services.

Most public procurement is based on open, competitive bidding for the supply of clearly defined goods or services (or, at least, the public authorities would like it to be so). The public approach often leads to extra efforts in product or service definition because government specifications are usually much longer than private sector specifications for the same product or service and they lead to a drawn-out process; but, effective public procurement can yield the cheapest (if not the best) result when the product is simple or when the desired service can be more or less accurately designed and

specified (a highway or an airport runway) and when no other objectives are critically important. Public procurement is much more problematic, however, when the desired result has unclear or even conflicting objectives (social and budget objectives often conflict), or tries to set desirable but impossible performance objectives (a new air traffic control system), or involves a result that is critical to meeting a public need (defense, schooling or social services). Rail passenger service franchises are a challenge on all three grounds.

In practice, these problems are never satisfactorily resolvable, and there is no perfect model for public procurement. The nature of politics ensures that publicly funded rail passenger systems always must try to meet conflicting objectives – what service should be provided, to what ethnic neighborhood or social class, at what price and quality, with what conditions for labour, etc. Funding competition almost always guarantees that the outcome of a franchising program will be over promised (certainly U.S. experience argues that it is almost impossible to get the performance, schedule and budget of public projects right because all the incentives lead in the wrong direction). Moreover, the Brenck and Peter paper (p. 158) highlights another dilemma: if the money is being passed through directly from a national government to regional or local governments, then the local authorities may not feel the same pressures to save money or increase efficiency that their national sponsors might wish (a kind of public fiscal moral hazard). Finally, the Kain paper demonstrates with particular clarity that public authorities are so afraid of the repercussions of the loss of rail service that they go to great lengths to renegotiate with franchisees rather than take a chance of service disruption by withdrawing franchises from failing operators.

3.4. If these problems cannot be fully resolved, can they at least be reduced?

The short answer is yes, somewhat.

Conflicting or unclear objectives are best resolved at the outset through detailed analysis and open discussion. It is particularly important that all objectives be on the table before any proposals are sought. Even if there remain opaque or possibly conflicting points, they can at least be clearly identified and transparently incorporated within the proposal.

If, during the process of establishing a franchise, the objectives change significantly, then the process should be restarted. The risks attached to not revisiting the design of franchises, condemning them to fail under the new objectives, outweigh the costs and delays (and bidder irritation) involved in prolonging the consultation.

Undue optimism on the part of **public** authorities is inevitable. It is probably controlled (and disciplined) best when there is ample political debate about the process and the expected results. It is also best if final funding and policy commitments are not made until hard proposals, preferably actual bids, are in hand.

Over optimism by **private** bidders can be either due to bad judgment (“winner’s curse”), often based on bad information, or to strategic bidding. Several approaches are available to counter it.

First, the essential basis for promoting realism is good information: generally speaking, ignorance of basic facts such as past demand and current costs is a guarantee of questionable bidding. Given that the existing public operators are using public funding, there is no excuse for not requiring that the information needed to support accurate franchise estimates be produced and published by the existing public operator/owner.²³ The invitation to bid should be accompanied by a government statement of recent past indicators and short-term future projections to provide a transparent baseline against which the reasonableness of bids can be assessed.

Second, the Argentine approach shows that holding the bidding in several stages can significantly promote the credibility of the bids received. In the first stage, only qualified bidders should be accepted in accord with a carefully developed list of professional and financial requirements as well as demonstrated track record (Kain, p. 69): bidders with incurable gaps in their qualifications should simply be excluded. In the second stage, business plan review can go a long way toward flushing out the differences in bids, especially if bidders are also required to furnish a specified matrix of quantitative measures of their proposal over the time of the franchise (km of line and track operated, trains run and train-km, seat-km, passenger trips, passenger-km, labour force, coaches, coach-km, locomotives and locomotive-km, individually powered equipment-km).²⁴ Professional assistance in bid evaluation at this stage can alert the franchiser to potential ambiguities in the specifications as well as identify the points at which the bids are showing wide variations in assumptions: bidders can be given a chance to review and correct their plans at this stage (or be rejected) without materially slowing the overall process. Having reached the final stage, there is less likelihood that the financial proposals will lack credibility. In some cases, bidders have been required at the third stage to provide a pre-signed contract as part of their bid, with no further negotiation allowed after award.

Third, incentives for strategic bidding can be diminished by reducing the criticality (political significance) of the project or by creating effective penalties for poor performance. The Japanese, for example, reduced the national criticality of the old JNR by breaking it into six pieces;²⁵ the Dutch and German experience clearly supports taking small steps and avoiding a “big bang” approach. For the same reasons, it is important to be careful with phasing, so that potential problems will emerge when they can be resolved rather than too late. Shifting potential problems from a national to a regional or even local scale (provided that the local authorities have full access to information and can benefit from experience elsewhere) can reduce criticality, at least for the national government.

Finally, performance bonds have proven to be a useful tool in ensuring that franchisees are not comfortably able to walk away from commitments, partly because of the size of the bond and partly because they value their ability to be able to receive bonds for future proposals.

4. Critical Issues and Lessons Learnt

The papers highlight, and experience elsewhere with rail franchising, concessioning and privatizations in a number of countries underline, that there is a typical set of critical issues that must be resolved as early in the process as possible, and in a consistent way, if the involvement of the private sector is to have a chance of success.

Consistent objectives and expectations

If at all possible, ensure that the actual objectives are consistent with public expectations. One of the most painful lessons of the BR privatization was that the public expectations of what would happen were unrealistic, leading the outcome to be compared (in some cases cynically) either with perfection, or with a deliberate, polemic exaggeration, rather than the simple question of whether the result was an improvement on what existed. Reasonable people can argue, of course, about the answer to this simple question, but we should not be arguing about what the real question should be.

Social versus commercial services

The government agency in charge must reach a clear consensus on which services are vital social functions, and which are basically commercial that can be left to the market.²⁶ From this decision will flow a lot of the choices as to tariff and service specification and thus determine where the contract should lie along the Public/Private spectrum. The decision will also determine the support roles (or

income to government) to be expected as the franchise is established, and it will have a significant impact on the need for regulation as opposed to contract oversight and enforcement.

System structure and access charges

The implications of the system structure need to be explicitly understood, as the system structure has to be consistent with the types or packages to be franchised or privatized. Moreover, the access charge regime (for infrastructure separated systems) will have a major impact on the ability to franchise and on the subsequent cost of the franchises (and the value of any freight operators sold).

Risk allocation

Risks need to be explicitly defined and put in the right place. As the papers have emphasized, it is increasingly clear that the demand and revenue risk for a social service should probably remain with the sponsoring agency, whereas at least some of the commercial risk might realistically be transferred to the franchise or private operator to the degree that the service is truly commercial and constrained by market competition. Other facets of risk are in the sheer size of the transaction and the time horizon involved. It is not possible to transfer a multi-billion Euro risk to a multi-million Euro company, no matter how tightly the agreement may be written. Smaller risks are more easily transferred. Similarly, risk transfer becomes less credible at longer time horizons because of the scope for unpredictable change.²⁷ An obvious example is the question of changes in policy as governments change: some governments feel bound by commitments of previous government, others do not.

Regulation consistent with objectives

The contract oversight and/or regulatory regime must be specified in advance, and it must be consistent with the government's franchising and competitive objectives. Van Dijk, for example, highlights the value of good supervision and monitoring (p. 133). This said, a particular danger comes when regulators, for a number of possible reasons, do not share the enthusiasm of the rest of the government for a reduction in the government's (i.e. their) role.²⁸ In these cases, hostile regulation can (often does) severely limit the ability of the private operator to manage the franchise or company: of course, inept or insufficient regulation could lead to a loss of public benefits as well. In addition, no agreement is ever permanent, and reasonable flexibility in dealing with change is critical. The process for managing these changes needs to be as clear and transparent as possible, whether it is negotiation, arbitration, regulation or litigation.

Social and environmental policies

Environmental and social issues should not be ignored. In the prior EU-15 context, the environmental issues and objectives are usually clear: by contrast, in a number of new EU member countries and in the former Soviet Union countries and Latin America, the State railway itself was a major polluter, a problem that is unacceptable with a franchised operator. Will the State pay to deal with pre-existing situations, or will it expect the new operator to assume responsibility? Much more important can be the issue of surplus labour, which was a particular problem in Latin America (and is a likely problem in many EU operators). Will the new operator be expected to assume the existing labour force and conditions, or will the labour conditions be subject to a clean slate relationship? If changes are to be made, who pays?

Length of concessions and investment

There is a direct interaction between the time frame of the agreement and the location of investment responsibility: the shorter the time frame, the larger the share of investment that must remain with government or that must be transferred to others (ROSCOs or lessors). For example, governments that want to keep the franchisee on a short time leash with frequent re-bidding cannot expect the franchisee to make long-term investments such as rolling stock unless there is a good market for leased equipment.

Competition in or for the market

What are the competition objectives for the new operator? Competition **for** the market (i.e. sale of a monopoly) can be consistent with detailed specification and extensive oversight. Competition **in** the market requires that a lot more flexibility and authority be transferred to the new operator. At the same time, if potential market power is transferred, then some provision for regulatory oversight is required.

Conflicting incentives

Sadly, behaviour tends to follow self-interest (“incentives”), not professed intentions, so a careful analysis of actual incentives is critical. This has several dimensions, including unclear and mis-defined objectives versus conflicting incentives. Unclear objectives (for example, saying that trains shall be clean and on-time, or that service shall be safe, without defining cleanliness, timeliness or safety) lead to requirements that are unenforceable later. Clearing up such conflicts **after** an agreement is already in place can be expensive for the awarding agency. Mis-defined requirements (e.g. requiring the franchisee to accept an oversized and unproductive labour force) directly increase costs or reduce service quality, and can reduce the authority of a new management. Conflicting incentives (setting or allowing a volume increase target on a congested line, or rewarding both a decrease in support and an increase in the labour force) create perverse and/or unpredictable behaviour. Given that social services in particular almost always involve a set of multiple objectives, some of which probably will conflict, the final set of incentives can never be perfect. This being said, time spent at the outset on understanding and refining the incentives that the various players face is never wasted.

Unrealistic bids

Failing to get realistic bids has been a problem that appears to have several causes, many of which may be mostly attributable to the inherent difficulties of public procurement (see discussion above). Probably the most important cause is simply poor design of the agreement in the first place. When the terms or dimensions of the agreement are not properly defined, it should come as no surprise that the ultimate result is sometimes worth less than the paper it is written on: the same is true of any contract, no matter who the parties are. It is of course true that the collection of issues involved in a rail passenger franchise agreement may be unusually complex by comparison with a simple commercial transaction. Accepting this, the question (for which there is more of an argument than a convincing answer) is whether there is something so uniquely difficult about developing a workable rail passenger franchise agreement that we should abandon the idea and by default continue to rely on the public sector to provide the service.

A second reason for unrealistic bids is alleged or actual irrational exuberance on the part of private bidders, leading them to make unrealistically high bids that ultimately cause franchise collapse and either renegotiation or re-bidding. To some extent, this is merely a proof that stupidity is a more common commodity than we would like to admit, and that it surely spans both private and public

sectors. One remedy – making those who commit mistakes pay for them – is well known (though perhaps not frequently enough enforced). Another possible remedy, employing more sophisticated bidding processes such as sealed-bid Vickrey auctioning, may work well in theory but has so far been found too complicated to apply in practice. Only Brazil employs (to my knowledge) open auctioning for rail.

Unfortunately, there are also cases in which the threat of sanctions or re-bidding is not credible because the full cost of imposing the potential sanctions would be higher for the franchiser than for the winning bidder. In these cases, the bidders can submit bids for low subsidies (or involving high payments to government) and then force the government to renegotiate later. Rail passenger franchises in the U.K. and Australia have often been treated this way.

Kain argues, with some evidence to support him that the more recent UK experience exhibits a worrisome trend toward increasing over bidding. Moreover, given the apparent willingness of the government to negotiate rather than rebid (and punish the winner) in cases where bids were too aggressive, Kain argues that what might legitimately have been simply irrational exuberance is now tending toward an entirely rational bidding strategy of "buying" the franchise at the outset and then recovering later through renegotiation of the terms. Once the expectations of bidders are shaped toward negotiation rather than performance, it can be difficult to bring the process back under control.

In one sense, this is a typical problem with public procurement, best known in defense contracting, where the desired weapon is considered to be so vital, and the specifications sufficiently vague, that the contractor has every incentive to over bid and count on renegotiating. The result, in terms of cost and schedule overruns, and performance shortfalls, is well known. Moreover, despite years of experience worldwide, there is little evidence that recent procurements are yielding better cost or performance results, nor are there many examples of effective punishment of strategic bidders.

One remedy for this kind of "strategic" bidding is to reduce the "criticality" of the procurement (in this case a rail franchise) by designing the package size and scope in a way that the threat of disruption or extra transaction costs is manageable in the event of franchise termination or rebidding. This may not always be feasible, but it should be a significant consideration in franchise design.

Another partial remedy is to require a performance bond that is sufficiently painful to surrender that would-be strategic bidders will think carefully before trying to force a renegotiation. Paradoxically, though, imposing a performance bond that is so large as to bankrupt the franchisee can often be as ineffective (because it is impossible to enforce due to the adverse impact on jobs and the franchisee's suppliers) as would be a bond that is so small as to be insufficiently painful to discipline bidder behaviour. From the franchisor's perspective, the bond should be at least large enough to compensate for the costs of franchise termination and rebidding, including interim operation if necessary. Bonds that are significantly above this level are not usually credible.

The three stage approach used in Argentina to evaluate the proposals for the suburban passenger and Buenos Aires Metro concessions suggests another approach to identifying and limiting unrealistic or strategic bidding. In the second stage, after the basic competence and capability of the bidder had been determined, experts were asked to assess the business plans of the bidders. The business plan contained the bidders' demand forecasts along with the unit costs and productivities used to develop the financial forecasts which the bidders used in developing their bids (the third stage contained the actual bids). The experts had the opportunity to disqualify a bidder if the demand forecasts were unduly optimistic, or could alert (warn) bidders that their forecasts appeared to be significantly out of line. This approach ensured that large deviations in demand forecasts (or in other significant cost

factors) were identified at the outset and that, at the least, all parties were on notice that a potential problem existed.

The issue of "unrealistic" demand forecasts has become especially contentious. In this regard, it is worth emphasizing that gross cost franchises and net cost franchises pose a different set of risks. Gross cost franchises generally put the demand forecasting risk on the franchisor, which takes away some of the ability for strategic behaviour from bidders (not all, though, since the cost forecast is based on the demand forecast, and demand overruns and/or shortfalls inevitably lead to cost changes and thus to renegotiation). Net cost, or commercial, franchises create the opportunity for strategic bidding to the same degree that they attempt to shift the demand risk to the franchisee because the demand forecast, as well as the cost forecast, is under the control of the bidder.

Expert evaluation of demand forecasts in a business plan carries its own risks, of course. Though it may reduce the perceived risk of unrealistic forecasts, it is done at the risk of substituting the judgment outside of "experts" for that of the party that should know the most about demand forecasting and that has the greatest incentive to get the forecast right. If, for example, the bidder's apparently optimistic demand forecasts are actually correct (because the bidder has better information or forecasting expertise than the outside "experts"), then action by the conceding party to lower the forecast will at best reduce the price paid (or increase the support projected) and might actually cause the bidder willing to pay the highest price or bid the lowest support to lose the franchise. As discussed above, demand forecasts by freight and passenger concessionaires in Mexico and Argentina turned out to be substantially higher than government expectations – and the bidders were much closer to the actual outcome.

It is also possible to constrain demand forecasts by, for example, requiring all bidders to make the same assumptions or projections about exogenous factors such as GDP or population growth. Since demand forecasts are a mixture of variables, partly exogenous (GDP) and partly endogenous (marketing flair), at least some of the opportunity for error (strategic or otherwise) can be limited by imposing a common approach to some of the driving variables. The obvious problem is that the record of public authorities in making ten year (or longer) GDP and population forecasts has not been any more impressive than that of private bidders: in addition, if the imposed GDP forecast (for example) turns out to be wrong, then the bidder would again have an argument for renegotiation as a result of errors by others that were beyond its control.

The fundamental answer, I believe, has two parts as discussed in the box in section 1.1 on the significance of the term Public Private Partnership. First, there is no possibility that either the public or the private partner knows enough or is smart enough to produce perfect forecasts, be it of demand, revenue or costs. Risks will always remain, and transferring them will only be done at a price: the issue is to clearly identify and manage the risks, and to keep the price of risk transfer reasonable. Second, the chief issue in risk transfer may not be in prediction, but rather in misalignment of incentives. If the two parties have the same fundamental objectives, then the assumptions underlying bidding will be generally reasonable, and the inevitable unpleasant surprises can be managed by agreement or negotiation. If the relationship is seen as a zero-sum game, however, then both sides have incentives to be unreasonable, both at the bidding stage and in later performance.

Conclusions

The central question of the discussion seems to be: "is there something so uniquely difficult about developing workable rail passenger franchise agreements, or rail freight privatization sale transactions, that we should abandon the idea and continue to rely on the public sector to provide the service because the benefits do not exceed the costs?" This is not to ask whether the experience with

franchising or privatization has been perfect or without problems: of course, it has not. It would also be fair to ask whether the British Government, knowing what it knows now, would repeat the details of the BR privatization experience: clearly they would not do so and, indeed, many costly mistakes have been corrected (though Kain would argue that some even more costly mistakes have been made in the process). Hard won lessons are available.

Freight

Taking the freight issue first, there is a strong argument that privatization of ECMT freight operators would be sensible given the reasonably successful experience worldwide. There is no valid²⁹ Latin American freight concession that has not done significantly better than the public operator before it in terms of productivity and market growth. Unfortunately, “better” did not necessarily ensure profits, and some concessions are not particularly strong. Moreover, the legal environment in most Latin American countries ensured that both parties violated various parts of the agreements essentially from the outset; so few experiences are dispositive. In Canada, privatization of CN has been a success both for the development of CN and (because of the competitive effect) for Canadian Pacific as well. The performance of the privatized rail freight operators in the U.K. deserves more analysis, but few would rate them as a failure, especially the shippers. The experience in Estonia has been much more problematic, but that is more because of changing and conflicting government policies than private performance.³⁰ The key question in privatizing ECMT freight operations will obviously be the level and structure of access charges, and the availability of reasonable access vis-à-vis passenger trains at times of commercial significance.

Social versus commercial passenger services

An interesting observation from Peter Kain’s paper (Annexes Table 2, p. 108) is that the incidence of problems in the U.K. passenger franchise (measured by whether or not it had to be converted from a commercial risk franchise to a management contract) appears to be at least partly related to the type of service being franchised. Only one of the five intercity passenger franchises had to be converted, and that one (Virgin West Coast) was particularly affected by Railtrack’s delays and extra costs in upgrading the West Coast Main Line (WCML). Only two (and a half) of the 11 London commuting services had to be converted, but 8 of the 9 regional/rural franchises either had to be converted or needed extra subsidy. Alexandersson and Hultén make a similar point (p. 172 and 173) in the distinction between the local franchises that were awarded on a gross-cost basis whereas Rikstrafiken awarded the interregional franchises on a net-cost basis.

Kain disagrees strongly with this conclusion, arguing that the primary determinant of problems with the U.K. franchises was the increasingly irrational exuberance that bidders were said to develop as the franchising proceeded: the later in the franchising process, the more likely that a bid was to be excessively optimistic. Moreover, he points out that the most difficult franchises – the regional ones – were generally awarded later, compounding the problem of excessive optimism.

While there is clearly merit to the argument that there may have been a “place in line” effect in the success of the U.K. franchises, especially as the Government did not act to reduce the apparent incentive to bid high and then negotiate if necessary, I believe it is likely that the type of franchise also had an impact. As a result, the U.K., Dutch, German and Swedish experience suggests that the social versus commercial dichotomy may have some validity, with the social services being more appropriate for management contracts or gross-cost franchises whereas the more commercial services may accept the transfer of more commercial risk to the franchisee.³¹ If true, one implication for ECMT franchising is that it ought to start first with smaller gross-cost, urban/suburban systems (where, indeed, it has begun with some success in Germany, The Netherlands and Sweden).³² These systems are sub-

national and smaller, so the threat/counter threat of strategic bidding and renegotiation at the national level may be avoidable or at least manageable through performance penalties. Indeed, such franchises have already been transferred or re-bid without unacceptable trauma. They are clearly social, so the choice of a management contract or a gross-cost franchise versus attempting a significant degree of commercial risk transfer is not terribly controversial.³³

National responsibilities in relation to local franchises

All major ECMT members have the technical capability (sometimes with initial assistance) to design, award and oversee franchises in their jurisdictions, though in some cases new regional agencies may need to be formed if the franchise is larger than the existing urban governments can manage. Experience with using national financing assistance to cover part of the support costs is also widespread. Unfortunately, most railways either do not collect, or do not share, their cost and revenue information in a format consistent with the urban systems, so local authorities are forced to compare any bids they may receive with an uncertain estimate of what it would cost to leave the system under the control of the national passenger carrier.

Perhaps more important, as the van Dijk and Brenck and Peter papers discuss, is that each of the many local authorities has proceeded on franchising with essentially no ability to learn from the other's experience. While it is clearly true that the needs of each community can be different (heterogeneity in approach is not necessarily bad – Brenck and Peter p. 160), there may well be valuable lessons to be garnered from an analysis of their experience. Since the national governments are paying a significant share of the cost of operating these systems, there would be a clear role for the national governments in financing and disseminating such studies.

Commercial high speed rail concessions and privatisations

At the other end of the spectrum, the high-speed rail passenger systems with mostly exclusive infrastructure seem to be candidates for truly commercial franchising if the access charges are clear and stable, or if the system could be awarded (even privatized) as an integral franchise that pays only for access to the national network in lower-speed, urban areas. High-speed rail services face a full range of competition from autos, air and buses³⁴, and most high-speed operators claim (without necessarily providing auditable numbers) that they are financially “profitable.” Given that most ECMT autos, buses and airlines are now private (more or less), it is not clear why the high-speed rail services could not be operated by private management and investors as well.³⁵

Conventional inter-city and regional services

The most problematic area seems to be the conventional intercity and interregional rail passenger services. In the first place, it can be difficult to reach a precise definition of these services because the boundary between “intercity”, “long distance suburban”, and “regional” can be blurred. As a result, the social rationale for public support is harder to define, but commercial viability is also questionable. This is especially true if the intercity services are to be subjected to competition **in** the market (which was not usually the case with the U.K. intercity franchises). Moreover, a significant part of the ECMT members' intercity rail passenger services (5 to 25% of passenger-km)³⁶ is international, and the institutional framework for franchising multi-national operation would be complex unless, of course, the international operators can be privatized. We could at least speculate whether the European Commission should reconsider the determination to subject conventional intercity passenger services to open access competition (**in** the market). Governments want to provide at least some support to these services for social reasons. If they were free to package conventional intercity passenger services

for competition **for** the market, assuming they did so under rules that guaranteed fair competition, the feasibility of franchising might be significantly promoted.

Basic conditions for success

Is all of this worth the bother, transaction costs and potential loss of network benefits? It obviously depends on a number of factors. If the current national railway is believed to be efficient and customer responsive in all markets at all levels, then the potential return from franchising is less expansive. Certainly, the countries that undertook franchising did not see their railways as being in the highly efficient category. Are there countries in which the national railway would fit well into the “it ain’t broke” category? If so, which country?

If the country has a well-developed private sector in the area of rail engineering and operations, then franchising or privatization has a better chance of success. In practice, private rail passenger operators have emerged rapidly wherever they have had the opportunity to do so, as all of the papers demonstrated. As a result, competition for franchises has generally been adequate, though it has been better in some countries than others, for reasons having to do with size of the franchise, access to the rest of the system, imposed capital requirements, existence of natural entrants such as large bus companies with mass transit passenger skills, experience on international operators in the local market, and the resistance of the existing national operator, among many others.

If the political system is not well suited to identifying clear public choices about objectives and tradeoffs (and the U.S. government is not necessarily in the “well-suited” category when it comes to rail passenger issues – and each reader can assess his or her own government), then neither franchising nor public operation is likely to work really well, but franchising may be harder to implement than otherwise because successful franchising is so directly based on transparency and stable policy.

If the legal system is not good at contract formulation and enforcement, especially in cases of government versus private parties, and especially across transitions in government, then franchising and privatization will always carry a high-risk penalty, as the decision of the Government to renationalize the infrastructure of the Estonian railway is proving. This may be a problem in some of the other new E.U. entrants if attempts to franchise or privatize go too far beyond a stable political consensus.

The appropriate boundary between public and private responsibility obviously depends on the social importance of the service delivered. Even where the service is of vital social significance, however, there still might remain a distinction between government’s responsibilities for ensuring the availability of a service at an acceptable cost to the user, as opposed to the actual delivery of the service. This said, there does seem to be a relationship between social significance (or, at least, political visibility) and the potential role of franchises in rail services. The more important the service and the greater degree to which it is supported by the public, the more likely that the appropriate form for franchising (if any) will shift toward either management contracting or gross-cost franchising. The smaller the public role in supporting the service, the more likely that commercial risk can be transferred (or that the service can be privatized).

5. National Experience so Far

Are there any safe conclusions to be drawn so far? Perhaps

Kain (p. 91) rates the Australian commuter franchising experience as wholly negative. Williams, Greig and Wallis, in a 2005 study for the World Bank (p. ix), concluded that “[t]he urban and rural

passenger rail concessions in Victoria proved difficult: they suffered from some design flaws, including attempts to transfer too much risk to the private sector and over-optimistic bidding. As a result, the State government had to step in to re-design and re-negotiate concessions, although we would judge the outcomes to date on balance represent a qualified success.” Certainly the experience reveals major mistakes to be avoided in any future attempts at franchising.

Interestingly, apropos the issue of rail freight privatization, Williams, *et al*, concluded that the freight privatizations (not concessions) in Australia had made “... the largely privatized rail freight industry markedly stronger today than at any time over the last few decades ...”. Equally interesting, they concluded that “[t]he relatively-simple **long-distance** passenger privatization [not franchising!] in Australia appears to have been successful, with improved marketing and profitability, although questions remain about its ability to fund renewal of capital”.³⁷

The U.K. experience so far is ambiguous. Kain rates it negatively (p. 60). Nash and Smith (p. 9 and p. 29) call franchising a “moderate success” but (like all good economists) call for further analysis. There is evidence in the U.K. case to suggest that gross-cost franchising worked better on the regional franchises whereas the original net-cost approach may have been suitable for the longer haul and more commercial franchises (and, yes, further research on this issue would be appropriate). Evidence from Argentina and Brazil is more positive for net-cost concessioning of urban passenger services when the bidding process and contracts were designed properly.

Brenck and Peter (p. 153) cite savings of 18 to 20% from franchising in Germany (most of which was either gross-cost or mixed contracts for short haul services)³⁸, Alexandersson and Hultén (p. 183) cite savings of 20 to 30% in Swedish franchising, and van Dijk (p. 132) cites savings of 20 to 50% on competed franchises in the Netherlands by comparison with savings of from 0 to 10% on negotiated franchises.³⁹

It deserves mention that the explicit policy in Sweden of allowing the State operator (SJ) to keep the “profitable” services out of the franchising process (and the implicit policy in the Netherlands and Germany of doing the same) may be politically understandable, but is economically curious. In fact, the same benefits of enhanced revenues and reduced costs should be generated from competed franchises, no matter what the financial starting point. Either the government or the passengers (or both) should benefit from franchising, even when the initial service provided by the State operator is “profitable.”

There have been relatively few failures in Germany, Sweden and the Netherlands, though there have been some bankruptcies and relinquishment of franchises. Van Dijk found that all of the Dutch franchisees did better than the status quo before franchising (p. 133), and Brenck and Peter (p. 153) found that the German franchisees demonstrated better customer focus than the previous operator. Competition for franchises was adequate in the U.K., Germany and the Netherlands. Competition was more limited in Sweden and in Australia. The reasons for the limited competition in the latter two countries are not clear, and deserve clarification.

Devolution

Taken together, the four E.U. cases raise an interesting issue of whether (or which) franchising should be done at the national rather than local level. The Dutch, German and Swedish cases were based on an explicit policy of devolution of planning and control (and some funding authority) to local governments. As a result these cases emphasized the role of local authorities and circumstances, and focused on the most socially driven rail services. Although the focus on local initiatives clearly limited the learning value because no attempt was made to study and summarize the experiences, it also

permitted a “heterogeneity” of approaches that maximized responsiveness to local needs. The U.K. approach, because it was driven at the national level, ensured a uniformity of approach that may well have been inappropriate for the regional, social services.

Rolling stock

Availability of rolling stock was a common problem in many cases. The basic issue – that short franchises cannot readily finance new rolling stock that has a life well beyond the life of the franchise – is inherent in shorter-term passenger franchises. This can create a problem of “stranded assets,” if the franchise is not extended. There were several responses. In the U.K., leasing companies (ROSCOs) were deliberately created to take over the old BR rolling stock and lease it to the franchises. In addition, the ROSCOs have purchased new rolling stock when the demand from franchises increased (and the Strategic Rail Authority intervened to support purchase of some specific new rolling stock in cases where the franchise/ROSCO relationship did not seem to be working effectively). The approach in the Netherlands, Sweden and Germany initially relied on the existing national operator (or its subsidiary) to lease rolling stock from the existing fleet to the new operators. For several reasons (including resistance from the national operator), this did not work well: instead, leasing companies have arisen, some as individual companies, and some as pooled ventures among the local authorities (Alexandersson and Hultén p. 171, and Brenck and Peter, p. 150). The guaranteed residual value approach in Germany also appears to be a good idea. Given the size of the potential market for leasing of passenger equipment, there is clearly a potential for a set of E.U. wide leasing companies to emerge. There is also a valid concern that allowing local authorities to acquire their own rolling stock could lead to proliferation in types and designs and thus to extra costs, interoperability problems and reduced value for the residual asset: national government standards or E.U. wide leasing requirements might temper the problem.

Predatory behaviour

The Swedish (Alexandersson and Hultén p. 167 and 184) and German (Brenck and Peter p. 148 and 149) cases clearly highlight the damage done by predatory behaviour from the existing national carrier (SJ and DB) and Van Dijk (p. 136) suggests that the Dutch National Carrier (NS) was not particularly cooperative with the needs of the local authorities. The effects were felt in a number of ways, including lack of cooperation in leasing rolling stock, predatory competition for franchises (either by unduly low bids for subsidy or abuse of insider information), attempts to use the national carrier’s preferential access to infrastructure to the disadvantage of new entries, creation of access charge regimes that would discriminate against new or smaller entries, refusal to provide a schedule of system operating information, attempts to cut linkages between the local systems and the national system and, possibly most damaging, refusal to develop or publish information needed to design franchises and conduct fair competition. To some extent, this was avoided in the U.K. by (in effect) abolishing the national carrier and prohibiting BR groups from bidding for the new franchises.⁴⁰ In this context, it is questionable whether the existing carrier should be permitted to compete for new franchises and it is likely that separation of infrastructure from operations will need to be reinforced in cases where, as in Germany, there remains a corporate relationship between the national operator and the infrastructure agency.⁴¹

NOTES

1. A series of Highway Cost Allocation studies in the U.S. have consistently shown that heavy trucks are paying in Federal use charges between 50 and 80% of the financial costs their use imposes on the Federal portion of the national highway network. Though these heavy trucks may be covering their marginal costs in rural areas, they are covering only a small percentage of their marginal costs in areas where congestion is significant. See, U.S. Department of Transportation, Federal Highway Administration, “1997 Highway Cost Allocation Study Final Report,” and the Addendum dated May 2000 that estimated social marginal costs. In addition, of course, inland water navigation in the U.S. is effectively free, with operators paying nothing against the cost of construction and operation of navigable waterways. By comparison, freight railways in the U.S. receive essentially no assistance, either at the Federal or state level.
2. In fact, the British rail system, previously private, was nationalized shortly after the war (1948). Other E.U. railways *La Société Nationale des Chemins de Fer* (SNCF) had been brought under public control between WWI and WWII.
3. Unfortunately, under-funding always leads to poor performance, which actually undercuts the case for more funding (called the “cycle of doom”) for railways. Under-funding of infrastructure can doom the operators and vice versa.
4. Because of the frequency with which the references will be used, the conference papers will be cited only by the authors’ names and the page number.
5. One of the major themes of the conference, though not explicitly stated, is the relative “success” of public versus private management in railways. It deserves emphasis that the current problems of most of the E.U. railways (and elsewhere) are, without qualification, due to failures in **public** management. This point is often accepted at the beginning of rail reform, but is almost always forgotten later.
6. See for example, Kasai, 2003, in which the objective of breaking up the old unitary JNR, and its unions, into more manageable and less resistant pieces is quite explicit. One could argue that the Deutsche Bahn has followed the same resistance strategy over the past decade.
7. The decision by the British Government to create 25 franchises was influenced by the fact that the old BR internal accounts had been set up that way. Better and more flexible information (as emerged later when the franchises were created) might have led to a different franchise definition in the first place.
8. This burden can be lifted through explicit PSO-type payments for excess costs. This was done in the case of the DB restructuring in the 1990s where the Government took on the excess costs of the existing civil service conditions the old employees enjoyed. In general, though, governments rarely compensate fully for the various political and social burdens they oppose on public enterprises.
9. In 2003/2004, the U.K. regional franchises averaged 1 555 km in total length of lines, 26.4 million passengers, and 813 million passenger-kms. The U.K. Long distance franchises averaged 1 312 km, 15.3 million passengers and 2 539 million passenger-kms. The London franchises averaged 459 km, 68 million passengers and 1 929 million passenger-kms.
10. Some of the franchisees have subsequently purchased rolling stock.

11. More precisely, in the two part charging system employed in the UK, if the regulator increases the fixed charges franchisees pay for using the network the additional costs are passed through to the government but franchisees do bear the cost of any changes to the marginal charges in force themselves.
12. Not a totally unfair outcome since a significant part of Railtrack's failure can be traced to maintenance contracts awarded before Railtrack was privatized and in which Railtrack had no voice. In addition, the initial access charge regime – heavy on fixed charges and light on variable charges – was imposed on Railtrack and had a significant role in creating congestion (Kain p. 80 and p. 119, note 46).
13. It is interesting that governments often capitalize inflows but rarely capitalize outflows.
14. Whether positive or negative, of course, the standard method of comparing flows over time is through calculation of the Net Present Value (NPV).
15. But creating an incentive for the franchisee to overvalue the assets or to run down the assets toward the end of the franchise period.
16. At least half of the gross ton-km and usually more than 25% of the train-km on ECMT railways are freight traffic. See, ECMT 2005 p. 49, Fig. 3.1.
17. In fact, a few years later, the CN proposed to buy the largest U.S. rail freight carrier Burlington Northern Santa Fe Railway (BNSF). The application was deferred by the Surface Transportation Board because of market dominance concerns and subsequently dropped by the CN and BNSF.
18. The winners curse theory suggests that in bidding for a concession some parties will err on the side of underestimating the value of the concession and some err towards overestimating its value. The winning bid is most likely to be from one of the parties overestimating its value (as opposed to one party conceiving of a uniquely profitably way to manage the concession) and that party will find it impossible to manage the business at a profit.
19. More sophisticated approaches, such as Vickrey auctions, have not been employed in railway franchising or privatizations, though the award of the British franchises was apparently initially planned as a Vickrey auction (see Kain p. 69).
20. There were problems with the minimum prices. In Brazil, "cooperation" among some bidders resulted in the single winning bid being one Cruzeiro (about US\$1.00) above the publicly stated minimum. In Mexico, the secret minimum was above the winning bid in one case, causing the concession to be re-competed (and ultimately awarded at the original winning price). In general, though they may have indicative use, minimum bids can cause more trouble than they save.
21. When consortia are bidding, the presence of both capital and operating support flows can lead to gaming **within** the consortium, especially when the construction or investment comes at the beginning of the franchise and the operating effort extends over the life of the franchise.
22. Perhaps "flair" and market development are not always critical: many franchisers would be happy with good service as specified for a good price (Kain p. 47). There is, to be fair, dispute about the value of the private sector "flair" or initiative. Kain in effect argues that the entire demand growth in the U.K. franchises was due to factors exogenous to private management. Nash and Smith conclude that there may have been at least some positive demand effect of private management, after correcting for strong economic growth. As acknowledged by these authors, it is always difficult to relate results to any factor within a set of complex and mixed causes.
23. Kain (p. 80) argues that franchising will inevitably be "fatally flawed" if the information and management ability needed to establish the rigor of bids is missing.

24. The purpose is to permit analysis of the basic demand performance parameters and identification of obvious over-exuberance in demand or productivity assumptions.
25. The loss of system benefits in Japan was reduced because the three island railways were not effectively connected to the remainder of the system, and because the borders of the three main-island companies were drawn so that only about 8% of passenger trips crossed a border.
26. It is a critical distinction that can cause subsequent problems. In the case of Railtrack, a commercial function that apparently could be privatized assuming success was soon seen to be a vital social function when it performed poorly.
27. As discussed above, to the extent that GDP growth is an exogenous demand risk, the franchise compensation could be adjusted in accord with GDP changes beyond the range specified in invitations to tender/requests for proposals.
28. This was a problem in Argentina and Brazil, and appears to have been a source of tension in Estonia.
29. The word “valid” excludes the case of the Belgrano Railway in Argentina. The Belgrano “concession” was actually a transfer of control to the labour union.
30. The current Estonian Government opposed the privatization of the Estonian Railway under the prior Government. The Government has recently announced plans to renationalize the railway.
31. The ultimate example of this spectrum would be the **privatization** of the Japanese **passenger** railways.
32. Another implication is that the national, “one size fits all” approach initially adopted in the U.K. was overly rigid. In hindsight, a better approach might have been to treat the regional franchises as gross-cost contracts and the long distance franchises as net-cost franchises. The London franchises probably would need to be analyzed as to which category they would fit, although most of them survived under a net-cost regime. Overall, as often happens, a mixture of approaches might have worked better.
33. Interestingly, also, the **level** of infrastructure access charges is not so important since the government will have to pay anyway, either to the operator or to the infrastructure provider. The **structure**, however, remains important since it determines the way in which the operator uses the system and it influences the financial risk that franchises face.
34. Some countries suppress bus competition for their rail passenger operators in order to promote their national rail passenger operator.
35. The privatization of the large JNR companies is instructive. It was clear that they all had an operating surplus, but also covering the full costs of their infrastructure appeared problematic, especially in relation to the Shinkansen lines. The government’s solution was to value the assets at levels that the new owners could afford, leaving behind some of the excess costs with the JR Settlements Corporation, along with the non-rail assets of the old JNR. Even so, of the initial US\$337 billion in liabilities of the old JNR, the three privatized JRs took on US\$131 billion in obligations, none of which are currently in default. See Thompson 2003, p. 335.
36. ECMT 2005 op cit, p. 50, Figure 3.3.
37. The Australian experience involves infrastructure separations with competitive access, multiple gauges, State involvement as well as Commonwealth involvement, and deals with freight as well as suburban and intercity passenger services. In addition, extension of the system to Darwin was based on a large PPP project.

38. About 36% of the German services were net-cost, 41% were gross-cost and 23% were mixed approaches. All were for short haul or regional services: none were for interregional services. Likewise, none of the Dutch or Australian services analyzed were for interregional services.
39. The savings stated for the Netherlands may be somewhat high, partly because they are early in the process, and partly because there may have been added local costs to offset part of the national savings. In any event, the observation that savings are greater with competition than negotiation is significant.
40. The author's discussions with senior BR officials at the time of franchising indicated their intent to delay franchising and, if the structure adopted permitted it, to use their superior access to skills and information to make life difficult for competitors. Moreover, the experience with the ROSCOs, where insiders were permitted to bid, created at least the political impression (if not the provable fact) of unfairness (Thompson 2004, p. 13).
41. Kain's argument (p. 62), that the existing carrier should be allowed to compete for franchises, is open to challenge. It is possible that, in cases where the management of the existing national carrier is actively promoting the spin-off of some operations (Russia might be an example), there might be an advantage in permitting management teams to compete with outside bidders, so long as all charges are determined at arm's length, and so long as the spin-off is fully executed. On the other hand, in most cases where the national carrier wants to guide the spin-off, or actually opposes it, the potential for the national carrier to convey an unfair and non-transparent advantage to the in-house candidate is too great to permit effective competition.

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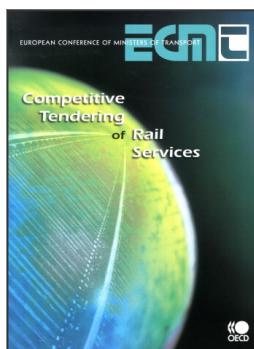
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ABBREVIATIONS

AFI	Annual Financial Improvement
BOT	Build, Own and Transfer
BR	British Rail
CEO	Chief Executive Officer
CER	Community of European Railway and Infrastructure Companies
CN	Canadian National Railway Company
CPTA	County Public Transport Authorities
CUP	Capacity Utilisation Policy
DB AG	Deutsche Bahn AG (German Railways)
DfT	Department for Transport
DOI	Department of Infrastructure
DSB	Danish State Railways
EWS	English Welsh and Scottish Railway (freight operating company)
GDP	Gross Domestic Product
GNER	Great North Eastern Railway
GOVIA	Partnership of Go-Ahead and Keolis (train operator)
ITC	Independent Television Commission
MBO	Management Buy Out
MTL	Rail subsidiary of MTL Holding (operator of Merseyrail services)
NAO	National Audit Office
NEG	National Express Group
NERA	National Economic Research Associates
NPV	Net Present Value
NR	Network Rail
NS	Dutch National Carrier
OPRAF	Office of Passenger Rail Franchising
PSR	Passenger Service Requirement
PTC	Public Transport Commission
PTE	Passenger Transport Executive
RBI	Rail Business Intelligence
ROSCO	Rolling Stock Leasing Companies
RRPS	Regional Rail Passenger Services
SJ	Swedish State Railways
SRA	Strategic Rail Authority
TOC	Train Operating Company
WAGN	West Anglia Great Northern



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