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Railway Reform:

Toolkit for Improving Rail Sector
Performance

Chapter 6:

The Roles of Government

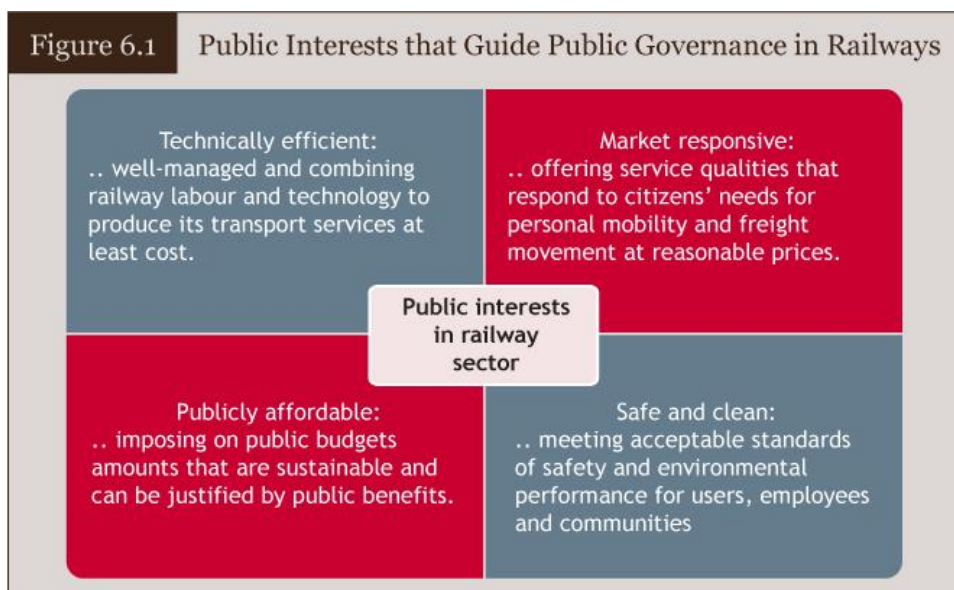
6 The Roles of Government

6.1 Government, Railways, and the Public Interest

Chapter 6, 7 and 8 address the roles of government in the railway sector. Collectively, the execution of these roles is referred to as sector governance, to distinguish it from corporate governance (the governance of the individual railway entities themselves).

Essentially, this toolkit promotes greater market focus and commercial orientation in the railway sector, so it may seem surprising that the role of government is given such prominence. But experience shows that government actions are always influential and often decisive in helping or hindering a successful railway industry. Rail sector governance affects who may be industry participants and the terms on which they compete, environmental and safety standards, the extent of public financial support, long-term infrastructure development, among many other factors. All of these are matters of public interest—hence also of government interest.

What are these public interests for railways? This toolkit defines public interests as the following: the railway industry should be efficient; railway service levels and quality should respond to market demands while maintaining affordability for the public purse; and rail services should maintain national—and increasingly international—safety and environmental standards (Figure 6.1).



The seven main roles in which governments pursue these public interests are summarized in Figure 6.2.

Figure 6.2 Main Roles of Government in the Transport Sector

1. Setting a national transport strategy	The overall policy aims and framework that govern how railways and other modes of transport will be developed and operated.
2. Creating railway sector structures	Primary industry institutions, balance of public and private sector roles, and the competitive framework for railways.
3. Purchasing transport services	Methods by which governments specify and purchase railway services or special fare concessions on behalf of the community.
4. Regulating the industry	Institutional and methods of administering economic, technical, environmental and safety regulations.
5. Facilitating international railway integration	Inter-governmental frameworks that promote interoperability and seamless service across border.
6. Establishing the administrative apparatus	The organization of ministries to perform the above roles generally, including supervision of entities in the railway sector.
7. Ownership*	How the government exercises governance over railway entities it owns.

* Outside North America, Government typically owns the railway infrastructure, and often also owns the railway opera-tor(s).

While overlap exists among these government roles, it is useful to consider them individually, not least because the success of each role requires unique skills and tools. The remainder of this chapter provides a discussion of each role. More details are presented elsewhere in this toolkit.

6.2 National Transport Strategy

The railway industry is subject to the overall umbrella of government policies and actions for the transport sector as a whole. Transport strategy specifies sector-wide objectives and then adopts consistent principles and establishes priorities for using public resources, including the railway sector, to attain the sector objectives.

Many countries lack an explicit or documented national transport strategy. Nevertheless, an overall umbrella exists, whether it is strategically coherent or not, and the nature and consistency of the fabric of the umbrella will influence the fortunes of those who shelter beneath it.

National transport strategies may differ between countries, but broad government policy aims and principles for transport within a country should be coherent when applied to the sector as a whole, i.e. independent of mode. Similarly, public policy instruments should minimize obvious conflict between modes. This, however, can be difficult to achieve in practice because policies (for public infrastructure investment, infrastructure cost recovery, transport taxation, and environmental and safety regulation, among others) often are formulated by different groups of people, pursuing different objectives, in different modal departments, using different economic principles and tools.

In most countries, transport demand is highly market-driven⁶⁶, but transport supply depends heavily on government policies for funding public infrastructure. In most countries outside of North America, including developing countries and Europe, rail passenger and freight traffic moves on publicly-owned networks, while most road freight, road coach services, and private vehicles travel on publicly-owned roads. However, public funding for developing and maintaining each modal network (and other public networks such as airways or inland waterways) is not always aligned with an overall national transport strategy via a multi-modal assessment. Similarly, infrastructure regulation and infrastructure pricing policies are often established independently. Both factors influence the relative fortunes and potential of industries that use this publicly funded infrastructure.

In most countries, governments consider the road system to be a ‘public good’—government is responsible for planning and funding highway network enhancement, expansion and maintenance, except for a few toll roads. Government responsibility for the highway network is presumed, and large national permanent administrations exist in almost every country to plan, finance, and manage road networks. Full cost recovery is neither possible nor expected for national road networks, other than for trunk routes.

By contrast, railway network development is often presumed to be an internal matter for the industry, rather than national policy issue, although there are some notable exceptions, such as French high speed railway (See the case study on SNCF Réseau). Government funding or investment in railways, other than for prestige projects, is considered to be a temporary aberration, which could be avoided if the rail industry was restructured or privatized. In reality, substantial public funding underwrites national railways, but this funding tends to be sporadic rather than systematic, handed over in amounts that fluctuate arbitrarily and unpredictably. As a result of this erratic flow of funds, financial management of many public rail systems flounders, seeking to achieve both short- and long-term stability based on a combination of deficit support, fare subsidy, maintenance back-log, and system enhancement. In fact, international experience has demonstrated that full infrastructure cost-recovery directly from railway users is infeasible in most countries, particularly for newly constructed lines⁶⁷.

The issue is not about providing public spending parity. Rather, it is about ensuring that public investment in each mode makes economic sense in light of overall transport policy. A rational and economically justifiable balance between modes can emerge only from a national transport strategy that applies common policy

⁶⁶ This is evident in countries such as Poland and Russia, where the shift from a centrally managed economy to a market-oriented one following the collapse of the USSR led to a massive shift of both passenger and freight traffic on the railway to the road sector. This is discussed in the case studies on the restructuring of Polish Railways (PKP) and Russian Railways (RZD).

⁶⁷ Full cost recovery would include total capital costs of building, renewing, or expanding railway infrastructure networks. Even in countries with relatively high average traffic density, traffic on the high-density rail corridors typically cross-subsidizes infrastructure costs in the less densely trafficked parts of the rail network.

aims and consistent benchmarks to planning and evaluation of public transport investment performance.

Similarly, if safety and environmental standards⁶⁸ and compliance regulations differ between transport modes, national safety and environmental regulations can affect modal operating costs, thereby affecting customer choices. The 2015 OECD guidelines⁶⁹ emphasize the importance of avoiding using differential standards or regulations as an indirect mechanism to shift traffic between modes.

Achieving inter-modal consistency within a national transport strategy is not easy. Common accounting and cost allocation methodologies, and costing principles need to be developed and implemented, to minimize pricing distortions between modes.

National transport strategies should help establish broad policy principles and settings. These cover a range of issues, including sector governance, public and private sector roles, the extent of competition, the types of interventions necessary to attain coordination and integration between modes, the nature of regulation, and consistent pricing principles across modes. They may also include integrating global warming policies with transport policies, ensuring meeting the transport needs of disadvantaged and remote populations, integrating transport infrastructure planning with land use planning, encouraging private participation in both provision of infrastructure and provision of services, and applying consistent safety and security standards. The role of government in establishing a level playing field for transport modes is thus complex, but it is better done imperfectly than not considered at all.

6.3 Railway Industry Structure

Focusing on the railway sector, the second role of government is to create or modify rail industry structure by determining which institutions will deliver rail transport services and developing the policy environment in which they will operate.

Every national government inherits an existing railway industry structure, and most continue to administer it extant, either because railway performance is judged adequate, or because the perceived difficulties and political risks of change outweigh expected benefits. International development bank experiences in the sector have shown that a national appetite for radical reform occurs only in the face of chronic deterioration in railway operating performance, a rail industry financial crisis, a major shift in political ideology, or some combination of these⁷⁰. Moreover, experience shows that conditions for achieving reforms include sufficient public support to counteract the losses of vested interest groups when reforms are enacted, and a cadre of professional administrators or advisers sufficiently motivated

⁶⁸ Regulations include market-entry licensing, standards for driver or operator training, vehicle environmental compliance, load limits, hours of operation, hazardous cargo movements, and so on.

⁶⁹ OECD, Guidelines on Corporate Governance of State-Owned Enterprises, 2015 Edition.

⁷⁰ Examples of the range of combinations of these 'triggers' are provided by the Case Studies included as part of this Toolkit, such as the Polish Railways, Camrail (Cameroon) and Mexican Railways.

and skilled to guide the reform process. The confluence of these factors is rare enough that radical structural reforms in national railway industries are relatively uncommon. Nevertheless, government remains responsible for railway industry structure—maintaining a sinking railway industry with scarce public funds is, by default, a policy decision.

Recognizing this, governments cannot avoid structural decisions. This is most obvious in countries with publicly-owned railway delivery institutions, but also true in countries with railways that are predominantly privately-owned. For example, merger proposals for private American railways invariably trigger government investigations into the competitive risks and potential benefits of such mergers. Whether private or public, the industry structure should permit it to respond to market forces. Government has a critical role in industry governance, but providing sector or corporate governance should not mean micromanaging individual institutions. For a corporatized railway, whether legally organized as a public entity or as a private corporate enterprise with 100% State ownership, government has an ongoing oversight role as sole shareholder, and there is a natural temptation to extend that role in order to encourage the SOE to meet other policy goals⁷¹.

The previous chapter addressed industry structure, including three main building blocks—business organization, market competition, and separability. Business organization is the railway's degree of commercial orientation, including the presence or potential extent of private sector ownership or participation. Market competition is the degree to which railway transport services are contestable through either competition in the market or for the market. Separability is the degree to which the archetypal railway's monolithic industry structure can be split into sub-businesses with decentralized management. The strategic nature and significance of these choices and alternatives were addressed in detail in Chapter 5.

6.4 Purchase of Transport Services

Most governments influence the passenger services that railways provide and the tariffs charged for those services. They do so for a variety of reasons.

If transport policy aims for equity, basic transport services are considered similar to health or education—a service that government should ensure is accessible and affordable for all citizens, including disadvantaged, low-income, or remote populations. If an environmentally-oriented transport policy aims to encourage the use of railways, subsidized services and prices for services make rail an attractive alternative to private vehicle use. If policy is based on the precepts of welfare economic theory, then it may favor charging only marginal costs for use of services, leaving government to pay for the fixed costs of infrastructure.

Budgetary support of passenger transport services is a common and legitimate public policy choice. However, budgetary support should not imply simply picking up the bill for whatever losses occur. Unsustainably high passenger rail subsidies, exacerbated by political pressure to avoid fare increases, create long-term funding instability, underinvestment, and unreliable low-quality services. Instead, budget

⁷¹ This is discussed in more detail in Chapter 10 below.

support should be targeted to those it is intended to serve. Operators should receive incentives to improve efficiency and revenues. The budgeting process should be open and transparent, to underpin long-term affordability and ensure that the policy choices are visible to stakeholders.

Central or local governments can achieve these aims by purchasing railway services through a contractual mechanism such as a Public Service Obligation (PSO) contract or Passenger Services Contract (PSC). These purchasing models are described in Chapter 8, along with a discussion of opportunities for arranging competitive bidding for those contracts, seeking the best value for public money through competition for the market.

Although the purchasing models in Chapter 8 are most directly relevant to passenger rail, a few legitimate government-imposed obligations exist in specific freight markets, such as hauling relief supplies to areas suffering natural disasters, or moving emergency military or civilian resources to respond to emergency situations (earthquakes or floods, for example). However, governments that own shares in mining operations, oil production and refining, steelworks, or similar industries sometimes pressure rail freight managers to keep tariffs artificially low to support so-called ‘strategic’ industries.⁷² Because this type of intervention is difficult to justify with economic arguments, this toolkit recommends avoiding such interventions.

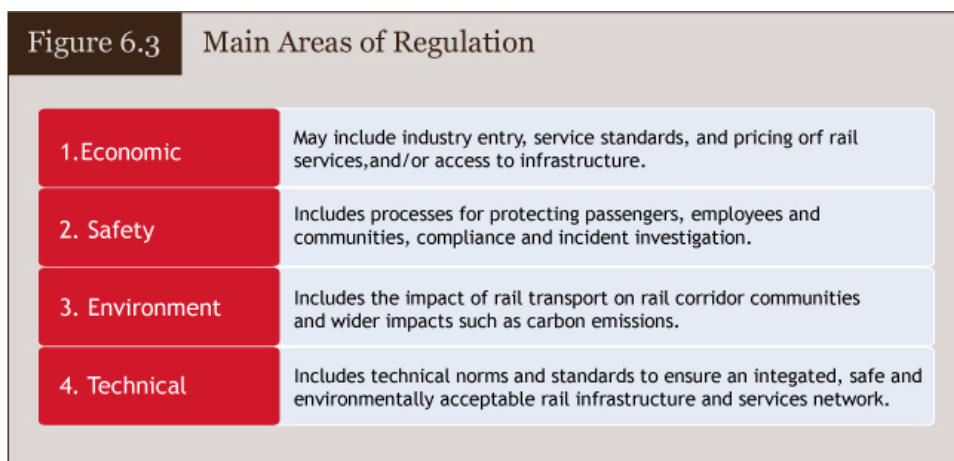
6.5 Industry Regulation

The fourth role of government in the railways industry is to establish regulatory systems to protect or advance the public interest. Government is responsible for developing the regulatory framework, administering some of the regulations, and delegating the rest to specialist administrative bodies.

This toolkit addresses economic, safety, environmental and technical regulation (Figure 6.3). Regulatory systems must be designed to suit industry policies and structures. For example, where there is a high degree of competition between railways and other transport modes, or between different railway operators, economic regulations may be minimal or aimed merely at sustaining that competition, particularly in cases where the railway has a natural monopoly or quasi-monopoly. Similarly, granting of infrastructure access rights to competing users requires a national system to regulate infrastructure access.

The ideal requirements of any regulatory system are: independence of the regulator from the organizations and/or agreements it is regulating; open and transparent deliberations; accountability of regulators for their decisions; and regulatory principles that are clearly enunciated and consistently applied. Regulatory models that aspire to these principles are described in Chapter 9.

⁷² ‘Strategic’ in this context may mean little more than industries with more political influence than the rail freight industry.



6.6 Transnational Railway Agreements and Treaties

The fifth role of government is, as facilitator of international rail integration, increasingly important to the railway industry in many regions. Most railway networks now are owned and operated within national borders, resulting in multiple barriers for railways, particularly rail freight services⁷³. This may have been acceptable before globalization, but international transport, because of its cost effectiveness over longer distances, now represents a large, fast-growing and potentially profitable market for railways. Inward-looking policies impede international rail corridor development, creating the following problems.

- Absence of transit management:** International freight train transits are not necessarily actively managed to achieve a specific origin-destination train path. Instead, some national railways simply move trains from border to border according to their own methods of working. After border processing is completed, trains are allocated to whichever train paths are available. Therefore, unpredictable border processing times creates unpredictable train path assignments. Prior to the EU initiatives of 1991, this was generally the case in Western Europe. It remains an issue in both the operation of the existing narrow gauge network linking Kenya and Uganda and the development of a new standard gauge network in East Africa⁷⁴. Moreover, international trains do not always obtain priority in train path allocation, locomotive assignments, me-

⁷³ In Southern and East Africa, network development in fact preceded national boundaries. The Cape Gauge network linking South Africa, Namibia, Botswana, Zimbabwe, Zambia, and the copper-belt region of DRC was developed as a single privately financed and owned system, and was later broken up to align with national boundaries. The Meter Gauge networks of Tanzania, Kenya and Uganda were developed piecemeal in the early 20th century but were operated as an integrated network between 1948 and 1977, when the first East African Community (EAC) was dissolved. It is currently operated as three separate national systems.

⁷⁴ Construction from the Port of Mombasa (Kenya) to Nairobi was substantially complete as of early 2017, and commercial operation is expected to begin in 2017. Planning is underway for extension of the network to the Kenya-Uganda border and then to Kampala. Extension to South Sudan, DRC, and Rwanda is under active discussion. The EAC is assisting with the development of a multi-country framework for ensuring communality of technical and regulatory standards.

chanical repairs, or management attention. Border delays occur in remote locations at inconvenient times, and local decision-makers may prioritize their national trains over international trains.

- **Unnecessary or incompatible train inspections:** Receiving railways carry out mechanical inspections of trains to reject wagons in poor condition that might cause safety problems or require repair. If a wagon is rejected, it must be shunted out of the train, and the train must be re-marshaled, creating delays. However, because national inspection standards are inconsistent, a wagon authorized to proceed in one country may be rejected in another country.
- **Locomotive and driver changes:** Locomotives and drivers may be changed at each border, which does not take long if fully-crewed locomotives are ready and waiting at the changeover yard. However this is not always the case, particularly if schedules are unpredictable. For example, a domestic train that supplies locomotives for an international train may be delayed, or the local train dispatcher may allocate waiting locomotives to a waiting domestic train if the international train appears to be delayed. When a new train is marshaled, the train brakes must be tested for continuity, which also adds delay.
- **Bunching and queuing:** High variability in border processing times combined with inevitable perturbations in train running performance can result in bunched trains and longer waits at borders for processing. These problems are self-amplifying—unpredictable processing time at borders is itself a major cause of schedule disruptions.
- **Information flow:** Sometimes the wagon or train manifest is not sent to borders in advance but arrives with the train, affording no opportunity for advanced processing by customs or other border agencies.
- **Customs and other border procedures:** Border procedures are also unpredictable, due to variations in railway operations and the activities of Customs and other inspection agencies active at borders. However, border services delays are accentuated when train bunching occurs. If Customs insists on full inspection of a freight train wagon, the railway faces a difficult choice—whether to detach the wagon and allow the train to proceed, or accept inspection while the train-consist remains whole. Detaching keeps the train moving, but the detached cargo is likely to experience a major delay, particularly if trains are typically dispatched at or near maximum allowable length and trailing weight.

‘Seamless’ international rail freight corridors thus require close and coordinated political and managerial attention across borders, not only within and between national railways but also involving Customs, health and phytosanitary inspection, and all other national entities active at border points along the corridors⁷⁵.

⁷⁵ In East Africa, for example, national leaders created two multinational entities to improve corridor performance along the ‘Northern Corridor’. The Northern Corridor Transit and Transport Coordination Authority (NCTTCA), whose members consist of Kenya, Uganda, Burundi, Rwanda, DRC, and South Sudan, is a permanent multinational agency that monitors performance on an ongoing basis and identifies technical issues restricting movement along the corridor, while the Northern Corridor Integration Project (NCIP)

In large countries such as China, India, Russia, or the United States, the ratio of international to domestic traffic is relatively low. But in parts of the world with smaller contiguous national railway networks, particularly the expanding European Union, parts of the former USSR, and southern Africa, developing successful long-distance railway corridors is vital to the operation of transnational train services that can compete with trucks. These international relationships are plagued by national incentives for each railway to maximize its own return from transit traffic or through-trains. Thus, inter-governmental agreements are essential to the provision of coherent frameworks for railway management co-operation, the streamlining of national border controls, and the avoidance of the highly variable delays that are the norm at many international rail borders.

Political and managerial boundaries can magnify technological boundaries. For example, the European rail network currently comprises a patchwork of inherited national systems with diverse technical standards—four main track gauges, eight main signaling systems plus twelve others, six main electrification systems, differences in loading gauge, pantograph headroom, maximum axle-loads, left or right train running tracks, safety systems, and others. These technical differences constrain cross-border operation and limit the ability of railway equipment suppliers to exploit scale economies. Other regions such as Sub-Saharan Africa and Southeast Asia have aspirations for creating regional networks. They will face similar problems with the integration of networks and services, in the absence of prior agreements on technical standards. In all regions, government engagement at a multi-country level is thus essential, in order to provide the enabling international frameworks needed to encourage solutions among national railway management and border agencies, allowing international rail corridors to compete successfully with other transport modes.

A related problem is inconsistent freight pricing or inconsistent access pricing across international borders. Without overarching political accords, local financial incentives may lead each railway to try to maximize their portion of the total movement revenue, thereby inflating the through rate, to the detriment of overall traffic prospects.

6.7 Administrative Apparatus

The sixth role of government is to create and use the state apparatus to perform all the other roles described above. The state apparatus must suit the industry structure adopted, which can differ by country. Some dimensions include: (i) distribution of responsibilities among ministries; (ii) delegation of decision making between national and local governments; (iii) preference for departmental or agency-type institutions; and (iv) preference for single-mode or multi-modal functional divisions within the Ministry.

A key requirement is to avoid conflicts of interest by separating the sector policy and regulatory functions from the commercial operation. When policy/regulatory advisory functions and the day-to-day responsibility for a government railway are

Summit, in which Kenya, Uganda, Rwanda, and South Sudan participate, meets regularly at the highest political level to set short-term performance targets and monitor achievement of those targets.

located within the same entity, government railway administrators risk persuading themselves that the interests of the public railway coincide with their perception of the public interest in railways. A critical element of the conversion of a State railway entity to a commercially-oriented enterprise is thus the creation of an independent regulator to replace ‘self-regulation’.

Combining development of railway policy, regulation, and corporate oversight of railway operations makes it difficult to pursue policy options, such as increasing the degree of competition, because that adds risk to the railway’s financial position. Obtaining private finance for rail projects can be difficult, because potential investors in a new rail venture may perceive that their risks are too high when the (state) partner maintains single stakeholder control over entry to the playing field, determines the rules of the game, and selects the referees. Finally, safety and environmental regulations that protect the public interests (as shown in Figure 6.1) seem unlikely to emerge from administrators of the organizations affected by the regulations, when those regulations may inhibit commercial performance of the rail sector.

After railway policy and regulatory roles are separated from commercial management, governments must decide how best to shape governmental entities to execute those roles. These options are explored in Chapter 7. Issues of ‘corporate governance’ of railway entities—integral to the role and operation of railways rather than governments—are in Chapter 10 of this Toolkit.

6.8 Ownership

The final role of Government is ownership (and in many cases operation) of the railway network within national boundaries, as touched upon in Section 6.3 above. In summary, the state as an owner should:

- (i) Ensure that state-owned railway governance is transparent and accountable;
- (ii) Establish a clear and consistent ownership policy;
- (iii) Act as an informed and active owner; and
- (iv) Clarify and prioritize its objectives.

Further discussions about Government’s role as the owner of railways are provided in Chapter 7.