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# Developments in rail organization in the Americas, 1990 to present and future directions

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ABSTRACT

Railways in the Americas date from the mid to late 19th century. They were all initially privately owned, but many Latin American railways underwent an evolution to public ownership and control. All of the rail systems were weakening as of the 1970s, and governments were forced to act. In the US and Canada, passenger services were separated from freight, with government support for the passenger services, while freight services remained in the private sector: in both countries the freight operator controls the infrastructure while the passenger operator is a tenant. In Latin America, governments mostly formed vertically integrated concessions to private operators in the 1990s with payments from freight operators and payments to passenger operators. In this paper, we argue that the form and structure of the US and Canadian railways will remain stable in the future unless political sentiment leads to significant modification of the deregulation of the 1980s. In Latin America, because there is currently no intra-modal rail competition on parallel lines, some of the currently vertically integrated freight concessions may experience transition to forms of open access in order to promote competition on the infrastructure.


## 1. Summary

Railways are the earliest form of bulk land transport and formed a major part of the transport systems in the Americas. Most of the railways in the Americas were built in disconnected pieces to address localized transport needs. In North America, the pieces were eventually merged into a system whereas many of the Latin American segments remained disconnected due to geography and differences in gauge. In both cases, the standard model was a vertically integrated monopoly, usually providing both passenger and freight services.

In the early decades of the 20th century, other technologies, especially trucks, but also automobiles and air, began to emerge and capture a growing share of the transport markets: railways began a long period of decline that was aggravated by hostile, populist regulation and promotional policies for other modes that harmed the railways. By the 1970s in North America and the 1990s in Latin America, there was a rail crisis that demanded action.

The response in the US and Canada was to separate passenger services from freight management and provide public funding to government-owned, completely deregulated passenger enterprises operating as tenants on the systems of the vertically integrated freight railroads. This was accompanied by restructuring and refinancing of the Northeastern railroads in the US, deregulation of the freight industry to put it on a more equal footing with other modes and by privatization of the major crown corporation railway (the Canadian National) in Canada. Somewhat later, the Mexican railway system was concessioned and its strong connections with the US and Canada have produced a much stronger system throughout North America. There is little reason to expect major change in these railways, though changes in regulation, which some politicians favor, could upset the current balance in the US and Canada.

The Latin American railways were, with few exceptions, removed from state hands, broken into smaller systems (most of which were the constituent parts of the original private railways before nationalization) and awarded as vertically integrated concessions for private operation. This included not only freight railways but also suburban passenger railways (and Metros) in Buenos Aires and Rio de Janeiro and new suburban services in Mexico City. Although the details of the concessioning varied from country to country, the general approach was to award 30–50 year vertically integrated concessions in freight and 10–20 year, vertically integrated net-cost concessions in the passenger services.[1]

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[1] Although many the Latin American suburban passenger concessions required a payment from government for operating and capital support, most met the net cost definition because the concessionaires were given some fare flexibility, were expected to make their own demand forecasts and agreed to take some demand risk.

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Success in these concessions has been relative. The prior deficits have been eliminated, infrastructure and rolling stock are in better condition, traffic has grown significantly and labor productivity is much improved. For the most part, governments have shown little interest in going back to the old nationalized companies, though the enthusiasm for private sector solutions of the 1990s has clearly faded. Labor unions would no doubt like a return to the past when their political power guaranteed high wages, but most Latin American countries have resisted labor pressures for renewed public control of operations.

Despite the clear progress, there are areas where governments are assessing the need for a change in the approach. Some of the concessions and private railways, especially in Brazil, but also Argentina and Mexico, seem focused on their owner's shipping interests to the detriment of other potential shippers. In addition, the vertically integrated concessions have proved impervious to intra-rail competition that, in some limited cases where parallel or source competition could be available, might lead to lower rail rates and better service. A number of concessions are well operated but are still unable to earn enough to invest in their assets because of severe trucking competition and the limited term remaining in the concession.

To deal with these issues, governments are considering a number of new approaches including direct public investment in the concession, extending the term of the concession and reforming the concession to provide competitive multiple access. The vertically integrated concessions with large traffic flows may remain essentially unchanged, but it seems likely that the less well established concessions will see at least some changes though the choice of government approach will vary by conditions and by country.

## 2. Introduction

When the general public thinks of railways, they often envision the commuter or intercity passenger trains that many take every day. The role of railways in hauling freight is rarely recognized though rail freight's contribution to modern economies is much more important than in rail passenger service. Railways may have a prominent role in lore, song and children's books, but modern eyes glaze over at the thought of studying comparative railway structure, ownership and regulation.

And yet, the past few decades have shown that structure, ownership and regulation make all the difference in how railways perform. Railway history in Latin America and North America,[2] extending back over many years, includes a wide range of approaches in these three dimensions and has yielded a large number of different outcomes. This paper surveys that history, analyzes the results, discusses why the railways in the Americas are so different from those in many other countries and speculates about where the railways might be headed in the coming decades. Table 1 contains an overall description of the railways of the Americas with a comparison with three large European railways. Table 2 summarizes the structure and ownership of these railways. A collection of maps is provided under the title "Maps for Developments in Rail Organization in the Americas" at http://www.tgaassoc.com in the Publications section.

### 2.1. Prologue: the US as precursor – a short summary of a long history

It is worthwhile to briefly review the history of US railroads because it is well documented and because most of the issues of rail structure and ownership in the Americas appeared first in the US and then emerged elsewhere in turn as the other economies developed. The first US railroad was the Baltimore and Ohio (B&O), which began operations in 1830, only a few years after the world's first railway commenced operations in the UK[3] Small, privately owned and operated railroads proliferated around ports and mines and in the few urban areas where passenger transport was important. By the US Civil War (1861–1865) railroads had grown enough to be a vital cog in the war effort of both sides. During the Civil War, the Congress, although occupied by the War, considered railroads important enough in binding the country together to authorize the first of the land-grant funded transcontinental connections.

The post-Civil War period saw a rapid growth of railroads, both to deal with the needs of reconstruction in the South and to complete the transcontinental links. The growth took place at a time when there was little competition from other modes so, by the 1880s, the railroads were seen to have considerable monopoly power with little to constrain them. During this period, the US also experienced an era of unconstrained capitalism, with railroads being a focus of hyper-promotion, over-investment and stock fraud.

These two forces combined to create great hostility to railroads and a political demand for regulatory control over railroad mergers and commercial practices. At the same time, overexpansion by railways had created severe competition in a number of freight markets that the railroads themselves were anxious to limit. In 1887, the first significant national regulatory agency, the Interstate Commerce Commission (ICC), was created in order to oversee and manage railroads' competitive practices.

This appears to be ancient history, but it is not. It is important to understand that the relationship between railroads (and their owners) and government in the US was founded in political hostility. The hostility in turn fostered the belief that regulated monopolies could be compelled not just to avoid monopoly abuses, but also to provide services in the "public interest," which meant in practice that politically inspired cross-subsidies (port equalization, imposition of the short haul/long haul clauses, labor conditions, etc.) could be imposed, to be paid for by profits in markets with limited competition.[4] In addition, rail regulation in the US preceded the development of the economic theory needed to support it, so it was the result mostly of political perceptions, not analysis. In very real ways, that attitude defined the approach to regulation of the railroads for many years: in some ways it still persists today and still colors the future approaches under consideration.

Without significant competition, railroads continued to grow rapidly in the years prior to World War I, reaching their peak extension (~350,000 Km) around 1920. This growth, in the face of a growing role for the regulator, led to the accretion of a large number of intrusive regulatory controls over mergers and tariffs, with the government/railroad management boundary blurred. The critical role of the railroads in World War I led further to temporary nationalization during the war, with a return to the private sector shortly thereafter.

The contradictions between intrusive regulation of railways and the operations of an increasingly competitive economy were exacerbated in the period between World War I and World War II. Competition from trucks (freight) and automobiles (passengers) grew rapidly: the highway network on which they operated was

[2] Geographically, the "Americas" are divided into North America, Central America and South America, whereas Latin America is usually understood to include the Spanish-speaking and Lusophone countries, including Mexico. In this paper, the Mexican railways could be considered "Latin" during the period prior to reform. After concessioning, linkages with the US have grown rapidly and it would more accurate to consider the Mexican railway system as an increasingly integrated part of the North American rail system both physically and by similar transport policies.

[3] In the US, the common term is "railroad," whereas the typical term in the UK (and internationally) is "railway."

[4] This was characterized in Beshers, 1989, as "the myth of the miraculous railroad."