



Contents lists available at ScienceDirect

Utilities Policy

journal homepage: www.elsevier.com/locate/jup

Two decades of rail regulatory reform in Brazil (1996–2016)

Patrícia Regina Pinheiro Sampaio^{a,*}, Mariam Tchepurnaya Daychoum^b^a Getulio Vargas Foundation Law School in Rio de Janeiro, Federal State University of Rio de Janeiro (UNIRIO), 190, Praia de Botafogo, 13th Floor, 22250-900 Rio de Janeiro, RJ, Brazil^b Federal University of Rio de Janeiro (UFRJ) / COPPETEC Foundation, Rio de Janeiro, RJ, Brazil

ARTICLE INFO

Article history:

Received 30 September 2016

Received in revised form

22 February 2017

Accepted 13 June 2017

Available online xxx

1. Introduction

Brazil is a very broad country with a history of lack of sufficient investments in transportation infrastructure. The rail system is no exception in this scenario. After initial private investments in the XIXth century, the sector became mostly publicly operated in the second half of the XXth century, especially through the incorporation of a federal State-owned company (SOE). It has also experienced increasing competition of trucks as a consequence of a public policy shift towards roads as the major means of transportation.

After decades of emphasis in road transportation (Andrade de Paula, 2010; Lima Neto et al., 2001; Galvão, 1996; Barat, 1991; Braga and Agune, 1979), in the 1990s Brazil privatized most of the existing railway system under concession agreements that covered both; infrastructure and services. The rail privatization process is considered a case of success in what relates to decreasing accident rates and improving freight capacity. However, there was no emphasis in network expansion after privatization (CNT, 2013; Pomper Mayer et al., 2012; Carvalho de Oliveira, 2005).

In 2012, the federal government launched the National Logistics Program (PIL I), which, among other goals, aimed at fostering investments to expand the rail network and promote intra-modal competition, by means of a profound unbundling regulatory reform.¹ The main goals of such reform focused on: (i) Unbundling

infrastructure and service provision: The government would assign the construction and operation of new rail infrastructure to private parties under concession agreements/public-private partnerships (“infrastructure concessions”) while allowing free competition in transportation service provision; (ii) Licensing Independent Railway Operators (IRO), which would be entitled to freely access the network in order to compete for clients; and (iii) The federal government purchasing all transportation capacity from the new infrastructure concessionaires and reselling it in the market under public auctions, through a SOE, to OFIs and cargo owners.

This new regulatory framework posed considerable legal and economic challenges, which, coupled with macroeconomic instability, prevented the reform from being implemented.

In this paper, we argue that the Brazilian rail system is lagging behind needs for at least two different reasons. The first one relates to issues arisen from the 2012 unbundling reform. The second one seems to be more profound and structural: Poor governance coupled with lack of long-term consistent policy planning have undermined sector's capacity to attract new investments.

In order to test our hypothesis, we take the following path. Firstly, we make a brief overview of the rail sector in the context of the Brazilian economy. We then make some comments on different regulatory frameworks eligible for structuring rail systems regarding their pros and cons.

In the following section we discuss the regulatory arrangement chosen by Brazil during the 1990's economic reform, which led to the transfer of operation and management of existing railroads to the private sector. Afterwards, we present the available regulatory tools and arrangements to promote intra-modal competition in railway systems, in order to discuss the 2012 reform, outlining some reasons for its failure. To inform this discussion, we present some data evidencing that the Brazilian railroad system has lately suffered from poor long-term planning, poor decision-making process, and lack of regulatory agency's autonomy.

We conclude by suggesting that good governance matters for sectoral performance, and that the recent history of Brazilian railroad system illustrates that fragile governance and poor decision-making process can provide reasonable explanation for sector's insufficient development.

* Corresponding author.

E-mail addresses: patricia.pinheiro@fgv.br (P.R.P. Sampaio), mariam.daychoum@gmail.com (M.T. Daychoum).¹ A governmental PowerPoint presentation of PIL I is available at: <http://www.pac.gov.br/pub/up/relatorio/601553fda730f7f943dbaea51cadd538.pdf>. Access in January 2017. This seems to be the only document made publicly available by the government regarding PIL I.

1.1. Brazil is a continental country and a commodity producer; yet, rail net density is very low

Railways are worldwide known as a more efficient system to transport huge volumes of cargo through long distances compared to roads. Especially for distances above 1000 km, the rail system can save half the costs of the road system (Castro, 2000). Rails are also recognized as bringing energy efficiency and environmental benefits to society (Pastori, 2010).

Yet, although Brazil is a vast country that trades huge volumes of commodities, railroads still play a small role in total freight transportation. There is data from the early years 2000 evidencing that the rail market share in Brazil decreases in transport operations for distances greater than 500 km, and that above 800 km the flows tend to zero (Villar and Marchetti, 2006; Castro, 2000; Marques and Robles, 1998). Since there has been almost no network extension since that data became available, and regulation has not significantly changed, it is very likely that this scenario has remained unchanged.

In a vast country where the national GDP has great dependence on exportation of primary commodities, mostly mineral and agricultural products (Ferraz et al., 2004; Carneiro, 2002; Kupfer, 1998), one can suspect how much the lack of a robust rail network has been adversely affecting the country's competitiveness.² In 2016, the main products exported by Brazil were soybeans, iron ore, petroleum, sugarcane, chicken meat, cellulose, soy oil, coffee beans, passenger cars, and meat (MDIC, 2016, 2015). Most of them are produced in the inner areas of the country, so cargo needs to be transported through long distances to reach the ports located in the Atlantic Coast.

Freight services and infrastructure supply are important variables when it comes to assessing a country's competitiveness in a global economy. And Brazil is not well positioned (World Economic Forum, 2016, 2015, 2014; World Bank, 2016, 2014, 2012).³ In 2015, Brazilian railroads only transported iron ore, soybean and sugar; and ore alone accounted for 75% of the whole system capacity (ANTT, 2015).

Data provided by the World Economic Forum and the World

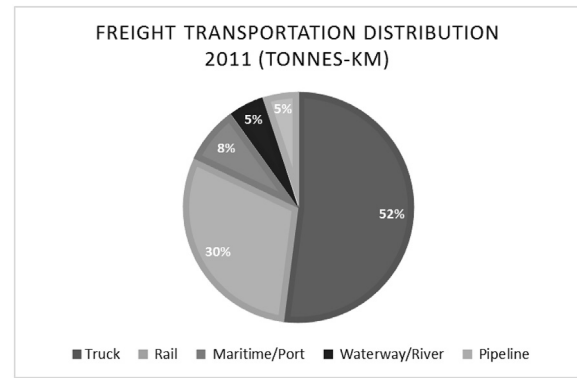


Fig. 1. Freight transportation distribution 2011.⁴

Source: Logistics Transportation National Plan – PNLT (MT, 2012).

Bank enlighten how important the debate over transportation infrastructure investment and regulation is for Brazil's economic development.

However, to date the Brazilian railroad system is quite poor in terms of network length and transportation capacity. This scenario is a result of government transportation policies during the second half of the XXth century, which emphasized roads as the major transportation modal (see Fig. 1):

Given that economic literature states that commodities are usually more efficiently transported by rails, Brazil nowadays faces a major challenge due to its unbalanced matrix of infrastructure for transportation.

According to data provided by the National Agency of Land Transportation (ANTT), Brazil currently has a rail network of 30,576 km,⁵ which is very poor considering the country's 8,514,876.599 km² territory. This means that Brazil has a rail network density of only 3.6 m per km², which is lower than the rail network density of U.S.A., India, Argentina, Turkey, Mexico, China, and Russia, being all these countries comparable to Brazil in terms of territorial extension.⁶ Even if we consider that a great portion of the Brazilian territory would be unfeasible for implementing transportation infrastructure due to environmental issues, and we exclude such portion, rail network density remains low.⁷ If we calculate the density of the Brazilian rail network excluding

² Services such as finance, telecommunications and transport are major inputs to the production of goods and services, including agriculture and manufacturing. The costs of these inputs account for a major share of total production costs, and are thus important factors affecting firms' competitiveness (Eschenbach and Hoekman, 2006).

³ In 2014, the World Economic Forum presented the Global Competitiveness Report 2014–2015, where Brazil stood in the 57th position among the 144 countries considered (World Economic Forum, 2014). The main alleged reason for such position was the difficulty to overcome the persistent weakness of transportation infrastructure, as well as a perceptible deterioration of functions performed by public institutions. Other pointed aspects were the weak macroeconomic performance in that year and the poor educational system, which hinders increase of specialized labor supply (World Economic Forum, 2014). In 2015, Brazil dropped to the 75th position among the 140 countries considered, and was placed behind its BRICs' partners, such as China (28th), Russia (45th), South Africa (49th), and India (55th), and also behind some Latin American countries, such as Chile (35th), Colombia (61st), Peru (69th), and Uruguay (73rd). The main reason pointed for such poor performance was the persistent infrastructure weakness as well as public institutional deterioration (World Economic Forum, 2015). The downfall continues: In the 2016–2017 Report, Brazil dropped to 81st position, as a consequence of political turbulence and economic recession (World Economic Forum, 2016). The World Bank also highlights the decrease of Brazilian competitiveness in the *Logistics Performance Index* (LPI). In 2012, Brazil ranked 45 among 155 countries. In 2014, Brazil stood on the 65th position among the 160 countries analyzed (World Bank, 2014). In 2016, Brazil reached a better position, standing 55th among 160 countries (World Bank, 2016). However, one of the aspects considered in the LPI is infrastructure. With regard to infrastructure in general, whereas in 2012 the country was in the 46th position, it dropped to the 54th in 2014 and, in 2016, it continued to lose positions, placing 65th, despite the better position in the general score (World Bank, 2016).

⁴ 2012 was the last time the National Logistics Transportation Plan (PNLT) was updated. PNLT is a strategic plan, essential to inform sectorial public policies. Hence, it has been difficult to find more up to date information on the Brazilian transportation sector. The government, through the Logistics Planning Company (EPL), has been preparing the Integrated Logistics National Plan (PNLI), which shall replace PNLT, but in the meantime the country has been suffering from lack of sectoral long-term planning and official information.

⁵ Information available at <http://www.antt.gov.br/index.php/content/view/4751/Ferroviana.htm>. Access in February 2017.

⁶ According to STATISTA (2015), in 2009 the twenty countries with the highest rail network density, including the European Union, were the following: (i) Germany (117.35 m per km²); (ii) Poland (71.36 m per km²); (iii) Japan, (69.95 m per km²); (iv) United Kingdom (67.54 m per km²); (v) Italy (65.47 m per km²); (vi) European Union (53.1 m per km²); (vii) France (45.4 m per km²); (viii) Ukraine (35.88 m per km²); (ix) Spain (30.25 m per km²); (x) Sweden (25.83 m per km²); (xi) United States (23.04 m per km²); (xii) India (23.04 m per km²); (xiii) South Africa (17.12 m per km²); (xiv) Argentina (11.3 m per km²); (xv) Turkey (11.1 m per km²); (xvi) Pakistan (9.79 m per km²); (xvii) Mexico (8.92 m per km²); (xviii) China (8.11 m per km²); (xix) Kazakhstan (5.53 m per km²); and (xx) Russia (5.1 m per km²).

⁷ According to the Ministry of Environment 509,891 km² of the national territory are what the legislation defines as Conservation Unites of total protection, regarding several biomes; which means that no human alterations can take place in this territory (MMA, 2016).

Download English Version:

<https://daneshyari.com/en/article/7411404>

Download Persian Version:

<https://daneshyari.com/article/7411404>

[Daneshyari.com](https://daneshyari.com)