The 2012 Regulatory Reform in the Brazilian Railway Sector and the public policy cycle

November 2015

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The public policy cycle

- Problem, agenda, alternatives
- Policy decision
- Implementation
- Evaluation
- Extinction
1. Diagnosis

Problems and Goals
Overview of the Rail Sector and its role for Brazilian growth

- Railways are a more efficient way to transport huge volumes of freight through long distances when compared to roads.
- Brazilian GDP has a great dependence on primary commodities exportations; this cargo is captive of railways.

Table 1 – Main Exported Products Exported in 2014 (US$ Million)

<table>
<thead>
<tr>
<th>Products</th>
<th>Value</th>
<th>Δ % (2014/13)</th>
<th>% Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>Soybeans and prods</td>
<td>31,408</td>
<td>1.4</td>
<td>14.0</td>
</tr>
<tr>
<td>Ores</td>
<td>28,402</td>
<td>-19.0</td>
<td>12.6</td>
</tr>
<tr>
<td>Oil and fuel</td>
<td>25,175</td>
<td>12.4</td>
<td>11.2</td>
</tr>
<tr>
<td>Transport material</td>
<td>20,374</td>
<td>-35.5</td>
<td>9.1</td>
</tr>
<tr>
<td>Meats</td>
<td>16,891</td>
<td>3.8</td>
<td>7.5</td>
</tr>
<tr>
<td>Chemicals</td>
<td>15,051</td>
<td>2.8</td>
<td>6.7</td>
</tr>
<tr>
<td>Metallurgic products</td>
<td>14,423</td>
<td>8.8</td>
<td>6.4</td>
</tr>
<tr>
<td>Sugar &amp; ethanol</td>
<td>10,357</td>
<td>-24.5</td>
<td>4.6</td>
</tr>
<tr>
<td>Machines and equipment</td>
<td>8,671</td>
<td>-3.4</td>
<td>3.9</td>
</tr>
<tr>
<td>Paper &amp; pulp</td>
<td>7,218</td>
<td>0.9</td>
<td>3.2</td>
</tr>
<tr>
<td>Coffee</td>
<td>6,616</td>
<td>26.1</td>
<td>2.9</td>
</tr>
<tr>
<td>Footwear &amp; leather</td>
<td>4,287</td>
<td>10.8</td>
<td>1.9</td>
</tr>
<tr>
<td>Electrical equipment</td>
<td>3,965</td>
<td>-7.5</td>
<td>1.8</td>
</tr>
<tr>
<td>Precious metals and stones</td>
<td>2,817</td>
<td>-12.1</td>
<td>1.3</td>
</tr>
<tr>
<td>Textiles</td>
<td>2,536</td>
<td>7.1</td>
<td>1.1</td>
</tr>
</tbody>
</table>
Overview of the Rail Sector and its role for Brazilian growth

- Freight services and infrastructure supply are important variables when it comes to assessing the country’s competitiveness in a global economy. And Brazil is not well positioned...
  - According to the *Logistics Performance Index – LPI 2014* (World Bank), Brasil ranks at the **65th position** among 160 countries (in 2012, it ranked **45th among** 155 countries). Considering the general quality of infrastructure, the fall is even greater: whereas in 2012 it ranked at 46th, in 2014 it dropped to **54th** => deterioration
  - According to the *Global Competitiveness Report 2014 – 2015* (World Economic Forum), Brazil ranked **57th among** 144 countries, but fell to the **75th position among the** 140 countries analyzed in the **2015-2016 Report**, behind the BRICs’ countries: China (28), Russia (45), South Africa (49) and India (55). The main reason would be the persistent lack of infrastructure (where it ranked 74th), as well as a perceived deterioration of public (122) and private (109) institutions
Overview of the Rail Sector and its role for Brazilian growth

- Even though railroads are important due to Brazilian exportation characteristics, as well as territory dimensions, to date the railroad system is quite poor.

Graphic 1 - Brazilian Matrix of Cargo Transportation

Source: National Logistics and Transportation Plan (PNLT), Ministry of Transportation (2012)
Overview of the Rail Sector and its role for the Brazilian growth

- Besides the unbalanced Matrix of Cargo Transportation, Brazil has a low network density: **3.9m per km²**.

<table>
<thead>
<tr>
<th>Country</th>
<th>Rail Network Density</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>117.35m per km²</td>
</tr>
<tr>
<td>Poland</td>
<td>71.36m per km²</td>
</tr>
<tr>
<td>Japan</td>
<td>69.95m per km²</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>67.54m per km²</td>
</tr>
<tr>
<td><strong>United States</strong></td>
<td><strong>23.04m per km²</strong></td>
</tr>
<tr>
<td>India</td>
<td><strong>23.04m per km²</strong></td>
</tr>
<tr>
<td>South Africa</td>
<td>17.12m per km²</td>
</tr>
<tr>
<td>Pakistan</td>
<td>9.79m per km²</td>
</tr>
<tr>
<td><strong>Mexico</strong></td>
<td><strong>8.92m per km²</strong></td>
</tr>
<tr>
<td><strong>China</strong></td>
<td><strong>8.11m per km²</strong></td>
</tr>
<tr>
<td>Kazakhstan</td>
<td>5.53m per km²</td>
</tr>
<tr>
<td><strong>Russia</strong></td>
<td><strong>5.1m per km²</strong></td>
</tr>
</tbody>
</table>

Source: STATISTA (2015)
Overview of the Rail Sector and its role for Brazilian growth

- It also has low rates of investment...

Graphic 2 - Investments in rail infrastructure in US$ (billion)

Sources: OECD Index; (*) Brazilian Ministry of Transportation (R$)
(**): Conversion by the current exchange rate on the last day of each reporting year, according to data provided by the Brazilian Central Bank
Overview of the Rail Sector and its role for the Brazilian growth

- And productivity...

**Graphic 3** - Railways, goods transported (million ton-km)

*Source: World Bank Data*
The two Brazilian patterns of Rails Pivatization and Sectorial Regulation

- In the 90s Brazil experienced a privatization programm under which the existing railways were divided in six different geographic areas, plus the railway of São Paulo state, and concessioned under vertically integrated arrangements.

- The process began in 1992 with the inclusion of the Federal Railway Network (RFFSA) in the PND.

- All the consortia that owned concessions experienced the presence of a commodity (agricultural or mineral) producer.

- Brazilian railroads were privatized mainly to their clients (VENCOVSKY; 2005).
The two Brazilian patterns of Rail Pivatization and Sectorial Regulation

- Privatization process succeeded in increasing productivity....

**Graphic 4 - Brazilian Railroad Productivity**

*Source: National Terrestrial Transportation Agency; TF National Association*
The two Brazilian patterns of Rail Pivatization and Sectorial Regulation

- ... and significantly reducing accidents.

**Graphic 4 - Brazilian Railroad Accident Rates**

![Graph showing the decrease in railroad accident rates from 1997 to 2012.](source_image)

**Source:** National Terrestrial Transportation Agency; TF National Association
Nonetheless, there was little increase in the network in terms of building new railroads, as well as in intramodal competition.
2. Alternatives and policy decision

What are the alternatives available?
3. Different possible regulatory designs

- Share of infrastructure among vertically-integrated concessionaires => grant of access
- Unbundling infrastructure and services
  - Accounting separation;
  - Legal entity separation;
  - Corporate structure disintegration.
4. Policy decision: The 2012 Reform

- National Logistics Investment Program launches a new concession model:
  - Segregating activities within the sector
  - Separating investment in infrastructure from service provision
  - The whole capacity of the new railroads would be purchased by VALEC, a federal State-owned company, and resold in the market

Source: ANTT
Institutional Actors and their Roles in the 2012 Arrangement

- National Agency for Terrestrial Transportation (ANTT);
- EPL (State-owned company);
- VALEC (State-owned company);

would act as a network manager; it would acquire from infrastructure concessionaires their whole network capacity of transportation and auction such capacity to:

(i) Customers willing to transport their own cargo;
(ii) Independent Rail Operators (OFI);
(iii) Already-existing rail concessionaires.

The company would then work as a “manager marketplace”, in which providers and customers would meet through VALEC (PINHEIRO, 2014).

- Vertical and horizontal concessionaires;
- Independent Rail Operators (OFI).
Policy decision without sufficient evaluation of possibilities?

The Federal Court of Accounts 2012 challenged the reform on the grounds of
(i) Lack of legal basis
(ii) Lack of technical studies (or at least they were not available)
(iii) Lack of regulatory impact assessment
(iv) Lack of discussion with stakeholders of the unique model

Other issues:
- Fiscal constraint
- Business risk fully attributed to the government ("demand capacity purchase")
- Cohexistence of two different concession models: risk of bottlenecks and institutional uncertainty
Results

• Between 2012 and 2015 the government did not succeed in launching even 1 public procurement process

• Fiscal Constraint

• In June 2015 the government stepped back to a vertically-integrated model

• The final question: Will it be successful?
Thank you

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