National study - Brazil

Barriers to attracting direct and capital market investments for railway infrastructure in Brazil

Executive summary

This report is part of project Strengthen national climate policy implementation: Comparative empirical learning & creating linkage to climate finance (SNAPFI), see www.diw.de/snapfi. This project is part of the International Climate Initiative (IKI). The Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU) supports this initiative on the basis of a decision adopted by the German Bundestag. More information on IKI can be found at www.international-climate-initiative.com.

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About this study

Project

Strengthen National Climate Policy Implementation: Comparative Empirical Learning & Creating Linkage to Climate Finance

Project coordination

The German Institute for Economic Research - DIW Berlin

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The International Climate Initiative (IKI), Federal Ministry for the Environment, Nature Conservation and Nuclear Safety (BMU)

Study conducted by

Center for Sustainability Studies (FGVces), São Paulo School of Business Administration (FGV EAESP), Fundação Getulio Vargas (FGV)

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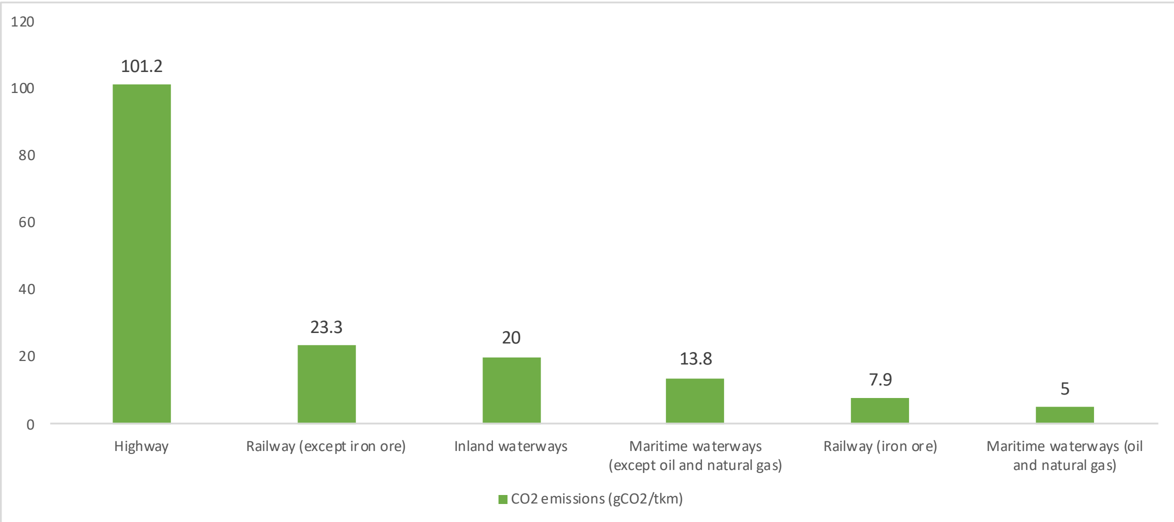
Full report at

http://www.gvces.com.br/barriers-to-attracting-direct-and-capital-market-investments-for-railway-infrastructure-in-brazil?locale=pt-br

Executive summary

For Brazil to meet its Paris Agreement emissions targets, efforts must be put into shifting the country's freight transport matrix towards less-carbon-intensive modes, like railways. As shown in **Graph 1**, railways have a smaller carbon footprint than roads and, in some cases, than inland and maritime waterway transport[1].

Graph 1 – CO_2 emissions per transport mode (2010)



Source: The authors, based on CNT (2019)

Brazil's transport matrix is heavily reliant on road transport. Data from 2015 shows that 65% of the country's freight transport was on roads, followed by rail (15%), maritime cabotage (11%) and inland waterways (5%)[2]. In addition to the negative impacts on emissions patterns, the country's overdependence on road transport is detrimental to national competitiveness, due to the importance of hard and soft commodities (e.g. soy, iron ore and crude oil) to national exports[3].

[1] CNT. (2019). Aspectos gerais da navegação interior no Brasil. Retrieved from CNT website: https://cnt.org.br/aspectos-gerais-navegacao-brasil

[2] Ministério dos Transportes. (2018). Política Nacional de Transportes - Caderno das Estratégias Governamentais. Retrieved from http://portaldaestrategia.infraestrutura.gov.br/images/PNT/caderno_das_estrategias_governamentais_versao_2018.pdf

[3] MDIC. (2020). Exportação e importação geral. Retrieved April 6, 2020, from http://comexstat.mdic.gov.br/pt/geral

Railways are a more suitable means for transporting agricultural and mineral commodities in view of their capacity to transport large volumes of cargo over long distances with significant economies of scale[4]. Although building railway infrastructure is more costly in terms of time and resources than building road infrastructure[5], railways yield fuel economy, require lower maintenance, have a lower risk of accidents and are less vulnerable to extreme weather events[6].

Historically, the Brazilian Development Bank (BNDES) and the state-controlled Caixa Econômica Federal bank have been the main investors in transport infrastructure projects, accounting for 47% of total investments in 2014[7]. Nonetheless, given current public fiscal constraints and BNDES's smaller resource pool[8], an increase in private sector investments will be required to fill the railway infrastructure gap.

In 2016, the federal government launched the Investment Partnership Program (PPI, in Portuguese) to expand infrastructure through privatisation and partnership contracts with the private sector[9]. The current administration is also interested in attracting international green capital market investments to fund infrastructure development. This is illustrated by the signing of a Memorandum of Understanding between the federal government and the Climate Bonds Initiative (CBI) in September 2019 and, in June 2020, by the launch of the Ministry of Infrastructure’s program to certify transport infrastructure assets and attract green bond investors[10].

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[4] Transport and ICT. (2017). Railway Reform. In *Railway Reform: Toolkit for Improving Rail Sector Performance*. Retrieved from https://ppiaf.org/ppiaf/sites/ppiaf.org/files/documents/toolkits/railways_toolkit/index.html#:~:text=Railway Reform%3A Toolkit For Improving Rail Sector Performance&text=This Railway Reform Toolkit aims,and execution of railway reforms

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[10] Governo do Brasil. (2019). Projetos de infraestrutura do Brasil vão acessar mercado verde mundial de financiamentos. Retrieved April 6, 2020, from https://www.gov.br/pt-br/noticias/transito-e-transportes/2019/10/projetos-de-infraestrutura-do-brasil-vao-acessar-mercado-verde-mundial-de-

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With the objective of contributing to public policy discussions, this study sought to identify the barriers that must be overcome in order to unlock private investments for the railway sector. Two types of challenges were examined (**Figure 1**):

a) Barriers that hamper the attraction of domestic and foreign **private companies** (also called direct investors) to build and maintain railway infrastructure and/or operate **freight** transport services in Brazil;

b) Barriers that hinder the attraction of domestic and foreign **investors** to invest in railway projects and companies through the **bond** market in Brazil.

Figure 1 – Barriers to the increase of private investments in the railway sector in Brazil

Source: The authors

To investigate the research questions, firstly, the FGV team conducted an extensive literature review to identify these barriers. To explore the ten barriers identified (**Figure 1**), the team

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interviewed 11 stakeholders from the railway sector, including railway concessionaires, members of academia, government representatives and railway transport users.

In the interviews, there was particular support for the following barriers: regulatory insecurity; judicial insecurity; and high risk-return ratio, contending that legal insecurity and the large amount of investments required for railway projects represent barriers to the attraction of direct investments for the sector. With regard to regulatory insecurity, representatives from academia, the rail sector and rail users offered a few examples in which regulations are incomplete, conflict with other regulations or have the potential to be overturned. As for judicial insecurity, a few interviewees claimed that the interference of different government entities like the National Agency of Land Transport (ANTT), the Federal Court of Accounts, the Public Prosecution Service and local governments contributes to generating uncertainty in the concessionaires' legal environment. In terms of the large amount of investments, interviewees agreed that the construction of railway infrastructure do require substantial investments, which is why the State is often responsible for its construction before granting the operations to a concessionaire.

As for the other barriers, the interviewees expressed different perceptions, as shown in **Table 1**.

Regarding legal impediments preventing the private sector from proposing new railway projects, interviewees had divergent views. They commented specifically on Draft Bill 261/2018, which authorises the private sector to propose and build new railroads, or to operate unutilised railway branches. On the one hand, government representatives and a few sector representatives claimed that allowing the private sector to propose new rail branches will increase private sector participation in railway operations and/or stimulate the use of branches that are not being used by the concessionaires. On the other hand, rail transport users are sceptical that the private sector will be interested in making such substantial investments and operating in a field that is not part of their core businesses. These assertions indicate that there needs to be a stronger effort on the regulator's part to engage different stakeholders throughout the discussion so as to develop regulations that are effective and conducive to a more secure business environment for private investments.

For barriers to bond investors (low supply of green bonds and lower than expected risk-adjusted returns of green bonds and infrastructure debentures), few interviewees had an opinion on those as most of them were not familiar with discussions involving capital markets. Nonetheless, those who had a view mentioned that there are already government initiatives and policy proposals under discussion in Congress that could help to address these barriers. Examples include the partnership of the Ministry of Infrastructure with CBI to certify the portfolio of new railway projects, which will allow concessionaires operating these railways to issue green bonds to finance their operations. Also, there is a draft bill under discussion

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(Draft Bill 7,063) that proposes creating a new series of infrastructure debentures with tax incentives to bond issuers. The creation of this new series aims to overcome the problem faced by the current series of infrastructure debentures which, by offering tax incentives to retail investors, has lower yields and fails to attract institutional investors. Draft Bill 7,063 also proposes to extinguish the withholding tax, a 15% tax paid by the debenture issuer to remit returns to foreign investors.

Other government initiatives and policy proposals were highlighted by the interviewees as initiatives that will help overcome some of the barriers identified in the literature review. For instance, Draft Bill 2,889/2019 proposes allowing exporting companies to enter into contracts with concessionaires and have the contract provisions based on foreign currency, thereby reducing foreign currency risks.

Given the small interview sample (partially a result of the covid-19 crisis) and interviewees' divergent views, data saturation has not yet been reached, preventing the research team to develop policy recommendations at this stage. Therefore, the team will continue investigating the railway sector in Year 2 of the SNAPFI project, possibly with a focus on institutional investments.

In addition to the content summarised here, in the full report the reader will find:

- Characterisation and history of transport and railway infrastructure in Brazil;
- Overview of international railway finance;
- Description of barriers to the development of rail infrastructure in Brazil;
- Findings from the interviews;
- Final remarks and possible avenues to be pursued in Year 2 of the project.

Table 1 – Summary of interview findings[i]

RP	Barrier	Type of stakeholder			
		Government	**Academia**	**Sector**	**Users**
A1	The **legal impediment preventing the private sector from proposing new railway projects** hinders the attraction of private direct investments to the railway sector in Brazil.	Strong support	Support	Conflicting views	No support
A2	**Regulatory insecurity** derived from the absence of a law regulating railway concessions hinders the attraction of private direct investments in the railway sector in Brazil.	No support	Conflicting views	Strong support	Strong support
A3	**Judicial insecurity** arising in situations of financial imbalance of contracts hinders the attraction of private direct investments in the railway sector in Brazil.	-	Strong support	Strong support	-
A4	**The long-term payback timeframe and high level of investments** required for greenfield railway projects hinder attraction of private direct investments in the railway sector in Brazil.	Strong support	Support	Strong support	-
A5	**Concessionaires' inability to generate revenues beyond** those derived from transport operations hinders the attraction of private direct investments in the railway sector in Brazil.	Low support	Conflicting views	Low support	-
A6	**Poor technical qualifications, lack of financial independence and political interference from regulating agencies** hinder the attraction of private direct investments in the railway sector in Brazil.	Insufficient evidence			
A7	**Foreign currency risks** hinder the attraction of private direct investments in the railway sector in Brazil.	-	Conflicting views	Low support	-
A8	**Delays in obtaining environmental licences** hinder the attraction of private direct investments in the railway sector in Brazil.	Conflicting views	Low support	Low support	-
B1	The **low supply of green bonds** in the Brazilian market hinders the attraction of investors to low-carbon (including railway) sectors in Brazil.	Support	-	-	-
B2	The **lower than expected risk-adjusted returns** of green bonds and infrastructure debentures hinders the attraction of investors to low-carbon (including railway) sectors in Brazil.	Support	Support	-	-

Source: The authors

[i] Research propositions developed based on:

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