

Brazilian Road and Rail Transportation Sectors and Its Challenges

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Abstract

This article aims to identify the main trends and challenges of Brazil in a globalized business environment. The relevance of discussion and suitability of a logistics system compatible with what is expected in terms economic development in Brazil sums up the problem of the present study, whose main objective is structured into three parts: historically contextualize the road and rail sectors in Brazil, characterize the current scenario of them and identify trends and future challenges facing an emerging and globalized economy. The method used was based on the analysis of the literature review in which data were collected through scientific articles, dissertations, periodicals and books, and electronic networks. The literature suggests that the uncertainty and complexity of the global environment, may be related to the influence of logistics efficiency in the international market.

Key words: Globalization; Sustainability; Road; Rail; Competitiveness

1. INTRODUCTION

Until the 1950s, the Brazilian economy was based on the export of primary products, and with that the transport system was limited to fluvial and rail transport. With the acceleration of industrial process in the second half of the twentieth century, the policy for the sector has concentrated resources in the road sector, to the detriment of the railways, especially in the area of heavy metal and mining industry. As a result, the road sector, the most expensive after air, was moving at the end century more than sixty percent of the country's cargo, (CEPA, 2015).

The first concrete steps towards the formation of a transport system in Brazil have been established only in 1934. Since the creation of the first railroad until 1946, the road schemes nationwide were assembled based on the railroads, complemented by waterways and the road network. During the 90's the state railways in Brazil were divided into separate networks and later became privatization object, through the establishment of concession contracts, giving the concessionaires the right to exploit exclusively the railway infrastructure in their respective grids. The Concessionaries operates in different geographic areas, not competing directly with each other. In most cases, their main competitor is road transport. Brazil has an underdeveloped transport infrastructure. Demand for rail transport in the country has historically been higher than the system's capacity. The constraints of state-owned enterprises to invest in locomotives, wagons and lines of the rail network were responsible for capacity constraints. As a result, the railway sector has a small share in cargo transportation matrix, accounting for only about 20% in Brazil, compared with 38% in the US, ILOS (2015).

Since privatization, the Brazilian railroad industry has experienced significant growth, an increase in transported volume of 90% between 1996 and 2013, (EXAME, 2013). This growth is due to the expansion of the agricultural sector, the increase in market share with traditional clients rail (mainly agricultural commodities) and, more recently, the development of intermodal transport, primarily serving customers in the industrial goods sector.

1.1 History Of Brazilian Railway Sector

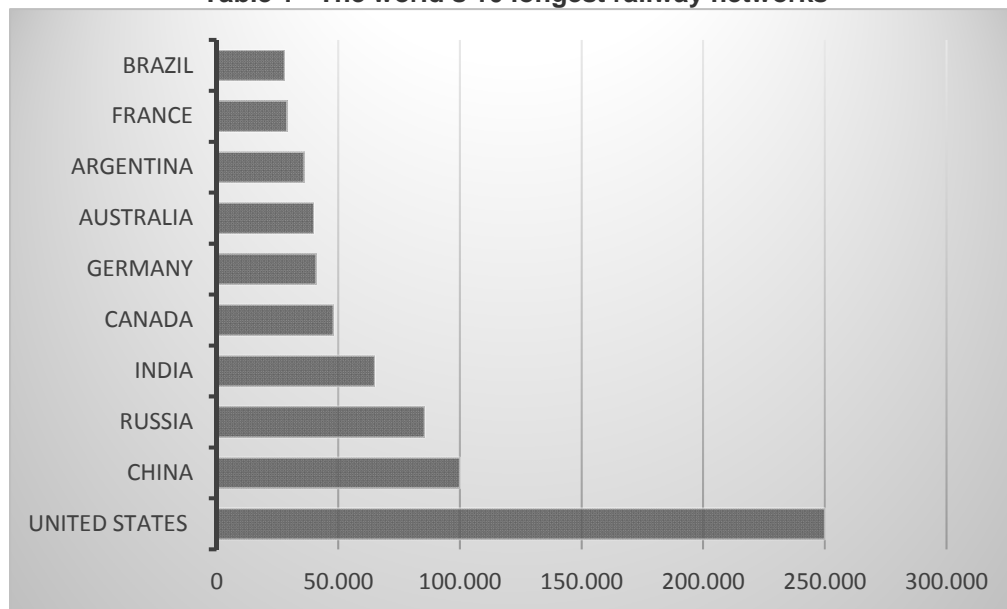
As reported by Silva, Cruz e Cunha (2010), Brazil's first railroad was built in 1854, between the cities of Rio de Janeiro and Petrópolis, both located in the state of Rio de Janeiro. However, as per Borges (2011) research, only in the late nineteenth century and early twentieth century were made significant investments for the construction of a railway network in the country, mainly from British investors. The country needed foreign investments to develop and modernize its road infrastructure. And the English investors demanded ever greater privileges and favors and profit guarantees to apply in the sector. The imperial train law served the interests of foreign capital and the railways built in the nineteenth century, destined to flow from inside the coffee production for export ports, represented a promising niche for the investor. The initial rail network, developed with these investments, is designed to link the centers of agricultural production and mining ports.

The construction of new railway lines, therefore, was limited to the Northeast and Central areas. In the 30s, the rail network was gradually transferred to the control of the Federal government, culminating in the creation of RFFSA in 1957, which unified the 18 railways networks that existed under his control. Conforming to Silva (2015), in the late 50s, the rail industry has stagnated as a result of the Brazilian government's decision to prioritize road transport which, although in the long run more expensive, required smaller initial investments. During the decades leading up to the privatization of the rail network, the industry was affected by the reduction in investments by the Brazilian government, a direct consequence of historic financial crisis that plagued the Brazilian economy, combined with a high rate of inflation.

1.2 Brazilian Railway Sector

According to the Brazilian Ministry of Transport (2014), the current Brazilian railway network consists of a total of 28.190 km of lines, which are predominantly concentrated in the South, Southeast, and Midwest of the country. According to the survey conducted by the Railway Technology (2014), the Brazilian network is the world's tenth largest in terms of cargo transportation. During 2013, according to ANTF (2014), the area served by the Brazilian rail network handled about 490 million tons. However, the current infrastructure is not sufficient to meet the demand for rail transport. Below in Table 1 we can see the comparison of the extent of the Brazilian rail network against other countries.

Table 1 - The world's 10 longest railway networks



Source: Railway Technology, 2014

1.3 Post-Privatization Period

Currently, over 96% of the rail networks operate by concessions from the government, made through a privatization program of the federal railway system started in 1996. According to Pudo (2006), before the adoption of the privatizations program, RFFSA operated a total of 12 rail systems, with approximately 22,000 km of roads spread over 19 states and 1,400 locomotives, 37,000 wagons and a workforce comprised 40,500 employees, a system carrying 86 million tons per year. These 12 systems were organized in six networks: (a) Estrada de Ferro Tereza Cristina, (b) the Central East Loop, (c) the Northeastern Network, (d) the Malha Oeste, (e) the mesh Southwest and (f) the Malha Sul. In March 1996, the Malha Oeste (covering parts of the states of São Paulo and Mato Grosso do Sul) was the first to be privatized. In 1997, the last stage of the privatization program was completed with the granting of rights to explore the Northeast Network (covering the states of Maranhao, Piaui, Ceara, Rio Grande do Norte, Paraiba, Pernambuco and Alagoas).

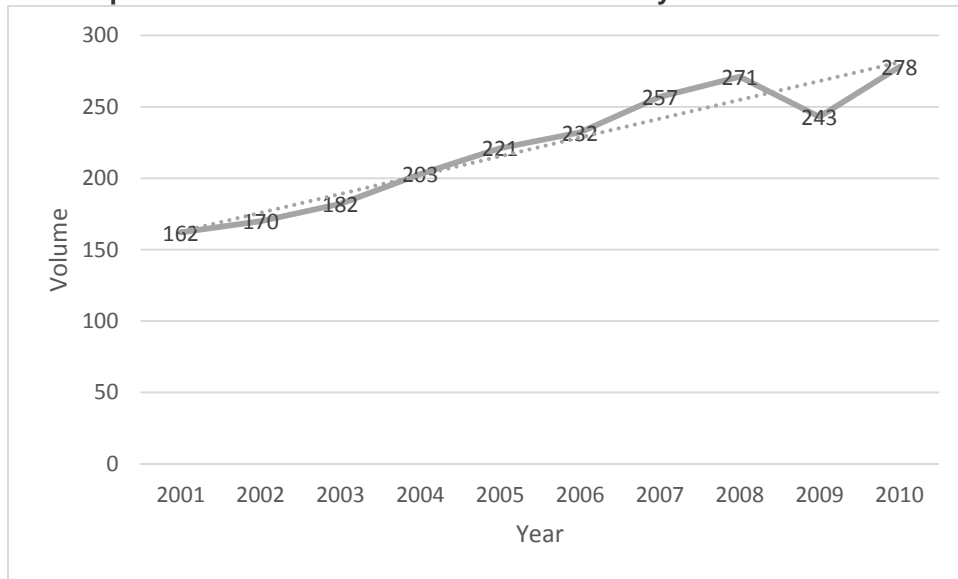
The privatization of each of the six rail network was coordinated by BNDES, by granting the right to exploit the rail network for 30 years (to be renewed by mutual agreement with the Granting Authority for an additional period of 30 years). In addition, the licensee obtained the right to use the main assets required for the operation of these rail networks through leases of assets from the lease payments to RFFSA.

After the privatization, according to PUC-Rio (2015), most Brazilian railway concessions came under the control of three groups. The first is the CVRD, the largest producer and exporter of ore pellets, and one of the world's leading producers of manganese and ferroalloys. CVRD controls the Estrada de Ferro dos Carajás and Estrada de Ferro Vitória-Minas, linking producing regions ore Carajás and Minas Gerais to São Luís ports and Tubarão, respectively. The second group is formed by CVRD, Previ (Pension Fund of the Brazil Bank staff) and FUNCEF (Foundation of Federal Economists), two of the largest Brazilian pension funds, the LAIF (Latin American Investment Fund) and JP Morgan Partners. This group held the concession to operate the networks Midwest and the State of São Paulo, operating through Ferrovia Novoeste, Ferrovia Norte Brazil (Ferro norte) and Ferrovia Bandeirantes (Ferroban), except for the area operated by ALL. Until the acquisition of Brazil Ferrovias and Novoeste, ALL represented the third main holder of rail concessions in Brazil, operating mainly in the South and Southwest regions. Upon completion of the acquisition, ALL became the main holder of rail concessions in Brazil.

Before the privatization of Brazilian railways, inadequate condition of the lines and the high number of intersections has resulted in a high level of operational disruptions, long cycles and a low average speed of commercial trains. Since privatization, significant improvements were made in the rail network as a result of

investments in lines and infrastructure. According to the study below presented by ILOS (2012), between 2001 and 2010, the volume of cargo transported increased by 72%, the share of rail transport in total Brazilian transportation services in Brazil increased from 19% to 21% and during the same period accidents in the sector fell by 69%.

Graph 1: Evolution of the railroad between the years 2001 and 2010

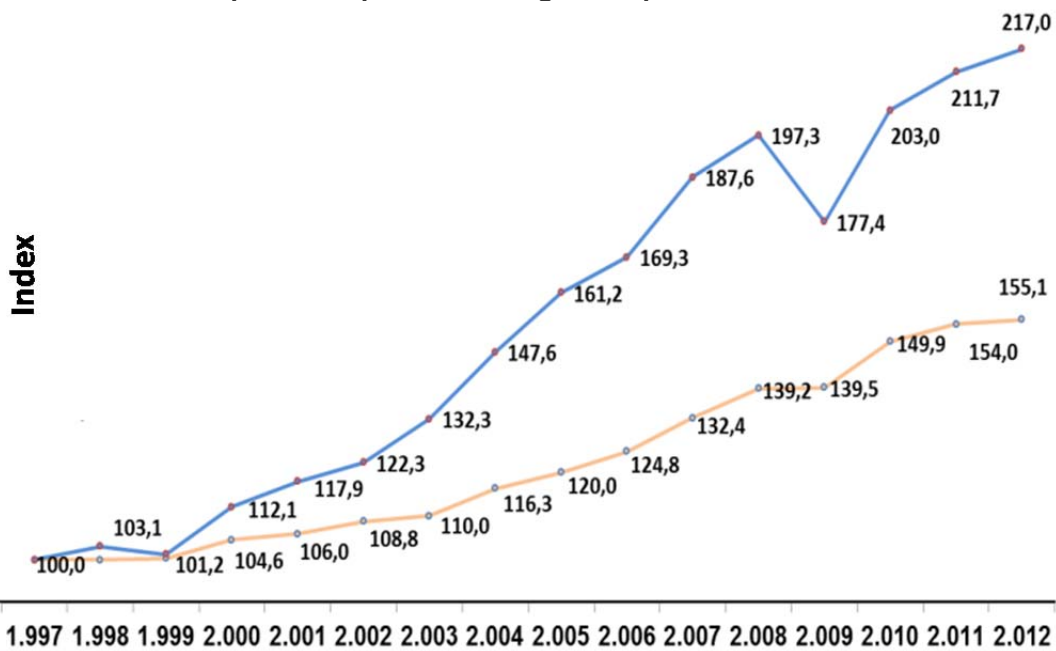


Source: ILOS (2012)

In general, most cargo in Brazil is transported by trucks or trains, and competition occurs regarding (a) the value of the fees charged, (b) the cargo delivery time, (c) the quality and (d) the reliability of the services provided. The rail mode is known for its ability to carry a high volume of cargo with great efficiency, particularly in medium and long distances. The loads typically transported by rail in Brazil include soy and its derivatives, ore, metal products, grains, cement and lime, fertilizers, petroleum products and industrial products as iron, steel products, building materials, pulp and paper, chemicals and petrochemicals, cleaning products, electrical materials / electronics, products and automotive parts, packaging materials, beverages, fuel, coal and its waste and containers of all kinds, Ministry of Transports (2012).

As we can see from the chart below, based on the figures of 2012, the production of railway cargo transportation grew 117%, while in the same period for the Brazilian economy GDP grew by 55%.

Graph 2: Comparison of cargo transportation vs. GDP



Source: ANTF (2013)

With the industry's revitalization, which has been taking place since 1996, when we implemented the model concession of freight railways, grows every year the need for engineers, technicians, engineers and other professionals facing the industry. To meet the demand for skilled labor due to market growth and emergence of new technologies, utilities has been investing heavily in professional training, so that the hand number of skilled workforce can meet the increasing demand in the sector.

Graph 3 - Total Direct and Indirect Employment



Source: ANTF (2013)

As seen above, Concessionaires generated a growth of 171% in direct and indirect jobs, comparing the years 1997 and 2012. The companies in the sector have invested in the training of professionals, having trained 14,103 employees 2001 to 2012.

2. THE HISTORY OF THE BRAZILIAN ROAD SECTOR

Brazil has an extensive area, water availability, a long coastal strip and slightly rough reliefs, but it did not prevent the adoption of a transport policy supported on the highways. Brazilian roads had its construction started only in the nineteenth century and the highways emerged only in the 1920s, first in the Northeast, to combat drought programs. In 1928 was inaugurated the first paved highway, Rio-Petropolis, today highway Washington Luis.

According to Portogente (2015), from the 1940s and 1950s, the construction of highways gained powerful boost due to three main factors: the creation of the National Road Fund in 1946, which established a tax on liquid fuels, used to finance the construction of roads by states and the Union; the founding of Petrobras in 1954, which went on to produce asphalt in large quantities; and the implementation of the domestic auto industry in 1957.

Also according to Portogente (2015), changing the capital Rio de Janeiro to Brasilia led to the creation of a new and ambitious road plan to connect the new capital to all regions of the country. Among the roads built from that plan places emphasis on the Brasilia-Acre and the Belém-Brasília, stretching over 2.070 km, a third of them through the Amazon jungle.

In a study by Pereira e Lessa (2011), it is reported that in 1973, with the creation of the "National Plan for the Road", which dictates guidelines to encourage expansion of the sector, that proposed the construction, paving and improvement of the national road network. In this plan, were created 8 radial roads, 17 longitudinal highways, 24 transverse roads, 27 diagonal roads and 62 connecting highways.

Correa e Ramos (2010), states that the economic difficulties of the country from the end of the 1970s caused a progressive deterioration of the road network. In the 1980s, the rapid growth has given way to stagnation. The loss of revenue, with the extinction in 1988, the tax on lubricants and liquid fuels and road transportation tax, prevented the expansion of the network and its maintenance.

Among the most modern highways in Brazil are Presidente Castelo Branco, linking São Paulo to the Midwest; Torres-Osorio in Rio Grande do Sul; Rio-Santos, who as part of the BR-101, runs along the coast of the states of Rio de Janeiro and Sao Paulo; the highway Immigrants, from Sao Paulo to Santos; and Bandeirantes highway from Sao Paulo and Cordeirópolis.

Although the road system, increased from the 60's with the expansion of the automobile industry, is onerous (three times more than rail and nine times more than the river, and consume 90% of the diesel used in transportation in the country), accounts for about 64% of the load circulating on the territory. As aimed at the inter-regional integration, their development hindered the improvement and expansion of rail and waterway transport.

2.1 The Industry Of Road Transportation In Brazil

As the union of road transport operators, SETCESP (2013), the road transportation sector in Brazil is sprayed with approximately 46,000 companies, 95% of small and medium sized. There are also self-employed carriers that add up about 310 thousand and act providing services to carriers or directly to several private companies. The national truck fleet is estimated at 1.85 million units.

Road transport is currently the main mode of transport for the movement of cargo in Brazil, which are typically provided by independent owners of trucks, without the ability to provide centralized services for large cargo volumes. According to the news released by the website Transporta Brasil (2012), ANTT has found that the average age of truck carriers reaches 15 years, the average age of autonomous (self-employed drivers) vehicles is 19 years and the vehicles that belongs to cooperatives have 14 years. The advanced age of the Brazilian fleet, especially autonomous vehicles, contributes to lower productivity and a higher consumption of diesel oil.

Tariff prices are closely related to fuel prices, and the increases in prices of these have a significant impact on the road transport services, as these have a higher consumption of diesel fuel per ton / km, compared to rail and sea. According to Reis (2001), the main costs in road transport includes fuel (usually diesel), the price of trucks and their maintenance, spare parts, cargo insurance and tolls, licensing vehicles and property taxes (the tax represents about 30% of sales).

With the exception of certain rules on the transport of dangerous goods, road transport services are not subject to specific regulation, then prevailing rules of free market. There is no need for special permission, or compliance with any requirements to enter the market. There are no specific laws governing the industry and rates are freely negotiated. This contributes to the fact that today about 95% of Brazilian companies carriers are classified as micro, small or medium enterprises with a high degree of informality.

3. LOGISTICS PROBLEMS THAT AFFECT BRAZILIAN'S COMPETITIVENESS

As reported by Amcham-Brasil (2013), Brazil loses the equivalent of US \$ 83.2 billion per year on logistics costs due to problems ranging from the high bureaucracy until the limited infrastructure of roads, railways, ports and airports. The loss represents approximately 5.6% of Gross Domestic Product (GDP).

Currently companies seek to offer their products and services faster, cheaper and better than their competitors. To do so, it requires a good infrastructure of transport modes, as these that determine the delivery time and even differentials final costs. The lack of infrastructure in Brazil is something visible. As mentioned above, there is precarious equipment, roads, shortage of skilled labor and lack of efficient public policies. Conforming Novaes (2001), entrepreneurs have recognized logistics as a major competitive factors, as many of them have lost market share due to lack of logistical efficiency.

In this sense, according to the Ministry of Transport (2015), some initiatives are being adopted by the National Logistics and Transportation Plan (PNLT), where there is the modal improvement projects, especially highways and railways. Besides the government, entrepreneurs are investing in new technologies and a greater integration of the supply chain, so that they can regain their space.

As linked in news media, Valor Econômico (2012), the president of Empresa de Planejamento e Logística (EPL), Bernardo Figueiredo notes that the infrastructure deficit is not the only problem to make inefficient to goods transport logistics in Brazil. The concentration of freight transport by road, the age of the trucks and excess of cargoes carried by them; beyond the extended daily working hours of truck drivers are also problems that need to be solved.

As an example is the fact that in Brazil of the trucks circulating for over 20 years. As informed by Revista Auto Esporte (2015), in the United States, the average age is 7 years. That old fleet is uneconomical, and cargo transportation prices are formed from unsustainable practices, as drivers traveling long hours and carrying excess loads.

Investments in ports, airports, railways and roads were paralyzed for almost 30 years, and were only resumed with the PAC (Growth Acceleration Program). Brazil is among the major developing countries with the greatest potential for growth in the world. Estadão (2010) informed that currently Brazil is the third largest agricultural exporter in the world, behind only the United States and EU. The country has good infrastructure - information structure, but falls short in physical infrastructure, especially with regard to rail, road and maritime system.

The current picture of the structure of the country's cargo transportation has shown many limitations to the expansion of economic growth. With existing transport problem, the country is wasting billions of reais, with theft charges, operational inefficiencies, resulting in significant loss of competitiveness. Improper use of modal has led to a very high dependence on road transport, due to low freight rates. Despite the huge coastline and

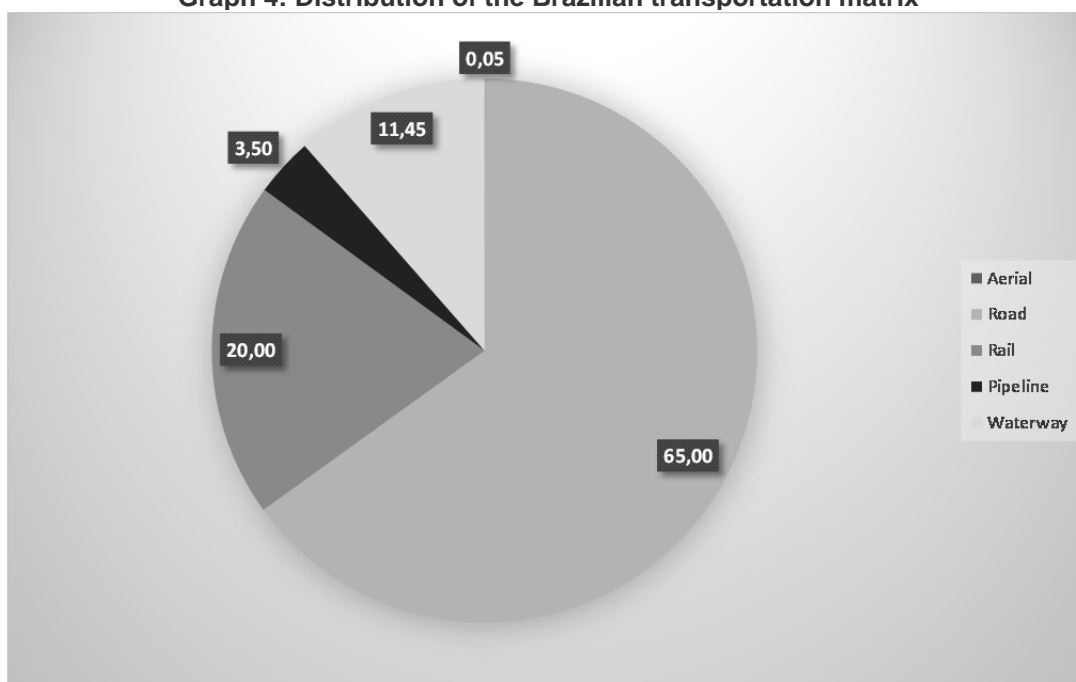
navigable rivers, the roads has an important role. According to the Ministry of Transport (2014), about 60% of domestic cargo is transported by road.

3.1 Dependence Of Modal Road

Brazil's transportation matrix shows an unbalance between different modes, which points to the need for Readjustments that promote greater competitiveness and sustainable economic development.

According to Sandoval (2014), road cargo transport accounts for over 60% of Brazil's transportation matrix in the year 2014. Still as told by author and as already mentioned, such modal has some characteristics that demand close attention from companies, it stands out among them the insecurity to move through the modal and the high age of the Brazilian fleet. Below we can see how this divided the Brazilian transportation matrix.

Graph 4: Distribution of the Brazilian transportation matrix



Sorce: Tecnológica, 2014

In Brazil, the excessive usage of road transportation is related to the simplicity of operation, because transports various types of cargoes, and can offer door to door service. The highways are full of trucks cutting the country, and the roads were still good a time lag would not be as big as it is. As released by the NTC&Logística (2015), only 12% of Brazil's roads are paved, behind China, Russia and India. The conditions of Brazilian roads cause an increase in delivery time and a reduction in the quality of services, which often is reflected in the performance of contracts, payments late fees and even loss of business.

In addition, problems with the roads, Brazilian entrepreneurs still face another problem: the theft charges. The theft rate cargo on Brazilian highways increased significantly in recent years. According to FreightWatch International, the largest consultancy specializing in this sector, Brazil is the world champion in this segment and is ahead of countries such as Mexico, South Africa, Somalia and Syria. According to statistics from the governments of Rio de Janeiro and São Paulo, theft in São Paulo roads increased by 10.6% in the first eight months of 2014 and 59.6% in Rio de Janeiro way in the meantime. Together, the two states account for over 50% of all thefts of cargo in Brazil. The impact on the loss for producers ranges from \$ 1 billion and R \$ 50bilhões / year, Cargo News (2015).

During a dabate related to logistics costs in Brazil, Paulo Resende, coordinator of the CCR Infrastructure and Logistics at Fundação Dom Cabral stated, "Brazil does not invest enough to recover or what loses", Amcham-Brasil (2013). And Resende complements, if Brazil invested, would see the gains immediately on business competitiveness, improving the movement of cargo and the fluidity of urban mobility. But that would mean having to apply 5.6% of GDP. Our current level of investment in logistics is in a maximum of 1.5%.

Another problem is the informality of road transport. There is a lack of training for drivers and security risks in transportation, and informality is reflected in accidents - which is costly to companies. According to the article published by the website Carga Pesada (2012), accidents kill around 8,000 drivers per year on the roads, not counting those who end up in hospitals and do not enter this account, number that is 14 times higher than the American rate.

In this scenario, companies strive to try to lower their cost of transportation. Outsource the fleet and logistics services to other operators is the most important action to reduce costs The path is now know how to add value

to their transport. The vast majority of companies prioritize the deadline for fulfillment of deliveries, the price of the service and reliability in this type of work.

3.2 Brazil Cost

One of the major reasons for the lack of competitiveness of Brazilian organizations in the world market is the high cost, the so-called "Brazil Cost". This cost ranges from structural problems - infrastructure - to bureaucracies. According to Revista Exame (2015), the Brazilian tax burden is approximately 40% of GDP, one of the highest in the world. In a study by Salum (2007), it was identified that the same agricultural product that is produced in Brazil is priced at 35% more than if it were produced in Germany or the United States.

Despite the Brazilian entrepreneurs investing in technological advances, the supply of skilled labor and increasing productivity, the Brazilian competitiveness is still small because of that "BrazilCost". The increasing globalization of the economy is supported by well developed logistic systems, which allow the product marketing costs in more distant regions to be competitive to the market. Fleury's (2012) study shows that in 2011 the US spent about 7.7% of its GDP for the logistics expenditures, something like 1.12 trillion dollars, as in Brazil logistical expenses, calculated by ILOS and recently released, reached the US \$ 237 billion, about 10.6% of the GDP. Logistics reflects a concern with the need to gain competitive advantage in markets that are subject to rapid change.

There is no doubt that Brazil's problem is structural, this in turn has negative consequences to the whole society. If the government does not adopt planning concepts aimed at the future, investors will no longer invest resources in the country. What determines foreign investment volume is the expectation generated by the state with regard to policy and planning. Prosperity of uncertainties, lack of infrastructure investment, reduce the ability to maintain and expand foreign investment. So create competitive conditions for the national productive sector is of prime importance to the country's economy.

4. GOVERNMENT PROGRAMS

Will be addressed below the two main programs that the Brazilian Federal Government have launched, encompassing a set of economic policies, which aims to accelerate the economic growth of Brazil, and the priority investments is focused on infrastructure and transportation.

4.1 Investment Program in Logistics – PIL

As presented by the Ministry of Planning, Budget and Management (2015), the program was released on August 15, 2012. The Investment Program in Logistics aims to provide the country with an adequate transportation system to the size of Brazil. Based on a model of investment that focuses on partnership between the public and private sectors, the initiative provides for the adoption of concession contracts in the case of highways and railroads.

4.1.1 Public Concessions

Concessionaries and partners will be selected through public bidding and will be responsible for the construction and expansion of excerpts, for its maintenance and the service users. In return, will have the rights to work through the collection of fees. The federal government will be responsible to conduct:

- Studies and Planning, in charge of the newly created Company Logistics Planning (EPL). For highways, the EPL will study and planning for the future stages of the awards program. In addition, the state will promote the environmental studies for licensing of the works of PIL, both at this stage as the next. The planning of actions in existing concessions are the responsibility of the concessionaires.
- Regulation and supervision of services, in charge of the National Land Transportation Agency (ANTT);
- Financial support in the long-term financing form the National Bank for Economic and Social Development (BNDES).

The main objectives of this program are:

- Raise the scale of investment in transport infrastructure, providing the country with a wide, modern and reasonable networks fees;
- Strengthen the state's planning capacity and promoting integration between roads, railways, waterways, ports and airports in conjunction with the productive chains;
- Create the foundation for sustainable growth in Brazil over the next 50 years, initiating an ongoing process of planning and development of its logistics infrastructure;
- Reduce costs and expand the country's transport capacity, resulting in the promotion of efficiency and increased competitiveness.

In this context, it is foreseen R\$ 198.4 billion in investments, of which R\$ 69.2 billion between 2015-2018 and R\$ 129.2 from 2019. Investments are divided as follows:

- Highways (R\$ 66.1 billion)
- Railways (R\$ 86.4 billion)
- Ports (R\$ 37.4 billion)
- Airports (R\$ 8.5 billion)

4.2 Growth Acceleration Program – PAC

Created in 2007 the Growth Acceleration Program (PAC) promoted the resumption of the planning and execution of great works of social infrastructure, urban, logistics and energy of the country, contributing to its accelerated and sustainable development.

As In 2011, the PAC has entered its second phase, with the same strategic thinking, enhanced by years of experience of the previous phase, more features and more partnerships with states and municipalities for the implementation of structural works that can improve the quality of life in Brazilian cities. As officially released by the Brazilian government, Brasil (2015), it has concluded R\$ 66.9 billion in projects across the country. There were 5.100 km of highways, 1.100 km of railways, 30 new developments in ports and airports in 37 projects, which allowed the expansion of service capacity to 70 million passengers per year.

4.2.1 PAC Road

Expansion of the Brazilian highway system, maintenance, road safety, studies and projects. The expansion of the system provides for works in duplication, paving, access to ports, contours and urban crossings to eliminate bottlenecks in strategic areas, and the development of new regions, expansion of the national physical integration to neighboring countries and reduce the cost transport. Improving the quality and traffic on the roads to reduce the accident rate, the project portfolio of security for investments in integration with predictive sector to other modes (rail and waterways) and concession of highways with high traffic volume are also goals that the transport sector shaft.

4.2.2 PAC Rail

Expansion of the rail network to enable connection to areas of agricultural and mineral production to ports, industries and consumer market. For this, the government wants a review of the regulatory framework, to create a more competitive environment in cargo transportation, encourage capacity utilization of railway infrastructure and stimulate new investment. Also wants to ensure project portfolio to expand and improve the use of the network by integrating it to other modes of transport (roads and waterways). Another important guideline is investment in high-speed trains - Rio-São Paulo-Campinas, São Paulo-Curitiba, Campinas- Mineiro Triangle and Campinas, Belo Horizonte

5. CONCLUSION

After 19 years, it is already possible to see the important results of the privatization of the Brazilian rail network for freight transportation in the country. The entry of private capital in railroads caused a significant increase in investments. From 1997 until 2013, according to the ANTF (2013), utilities invested over R \$ 35 billion. According to SNA (2014), it also stimulated a 94% increase in cargo handling; 119% growth of rail production; 173% increase in the number of employees and 69% reduction in the number of accidents.

It is undeniable that the operation of the utilities has brought improvements in several areas, such as increased productivity, and, according to the Rumo Logística's President, Julio Fontana Revista Globo Rural (2012), it will also reduce the flow of about 30,000 trucks / day on the roads. However, there is much to improve. For the future, the development of the railways depends on a set of various factors such as expansion of the network, regulations, environment, technology, safety, taxation, among others. One of these points, however, stand out: intermodality.

Accordingo to Transporta Brasil (2010), the growth of intermodal is key to better utilization of infrastructure in Brazil. Taking advantage of the diversity of modes (road, rail, waterway, air), it can improve the efficiency and productivity of the national economy by reducing the so-called "Brazil Cost" in this segment. Also, it becomes easier to equate the use of the advantages of each mode, including with respect to the reduction of energy consumption and environmental impacts, as well as stimulate door to door. Intermodal transport grew timid 8,636% since the beginning of the privatization process, that because there are serious barriers to their real integration, the main causes are the conditions of rail access to ports and the tax system. This requires improvement for the effective implementation of the OTM (Multimodal Transport Operator), in terms of processing of documents between states, the use of containers or tax incentives for the creation of new intermodal terminals.

One of the concessionaires, ALL (2015) made an investment of R\$ 880 million to expand its rail network to the city of Rondonópolis (MT) and the largest intermodal center of the country, the Intermodal Complex Rondonópolis (CIR). The construction of 260km of trails that connect Alto Araguaia to Rondonópolis nears ALL the western border of Brazil, increases the efficiency of the flow of cargo in the country's largest grain export corridor from the Midwest to the Port of Santos, the largest port the country and so and expands the potential of the railway as a logistics solution for Brazil's competitiveness.

In any country, adequate and efficient logistics is highly dependent on freight transport infrastructure. Thus, the high cost of logistics in Brazil, generated by infrastructure deficiencies, makes it decrease competitiveness, reflecting on the lack of growth of companies and the country. Therefore, reducing the "cost-Logistics" is a very important factor for Brazil to reach its economic development in exports.

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