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The Development of the Capital Market between the End and Beginning of the 19th and 20th Centuries: An Investigation of Relations with Industry in Brazil

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Keywords: *stock exchanges. industrialization. institutions. legislation. capital market.*

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The Development of the Capital Market between the End and Beginning of the 19th and 20th Centuries: An Investigation of Relations with Industry in Brazil

O Desenvolvimento do Mercado de Capitais Entre o Fim e o Início Dos Séculos XIX e XX: Uma Investigação das Relações com a Indústria no Brasil

Juliano Vargas ^α, Daniela Freddo ^σ & Rafael Braz de Oliveira ^ρ

Abstract- In this paper, the general objective is to highlight the development of the capital market and its relations with industry in Brazil between the end of the 19th century and the beginning of the 20th century. The underlying hypothesis is that the capital markets in Rio de Janeiro and São Paulo were driven by changes in legislation and institutions created at the time. Due to these changes, transactions on Stock Exchanges have become an important attraction for companies. It is concluded that the national capital market was decisive in stimulating Brazilian industry in the period, with both changes in legislation and institutions being the fundamental links in this connection.

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Resumo- Neste artigo, o objetivo geral é evidenciar o desenvolvimento do mercado de capitais e suas relações com a indústria no Brasil entre o fim do século XIX e o início do século XX. A hipótese subjacente é a de que o mercado de capitais do Rio de Janeiro e de São Paulo foi impulsionado pelas mudanças de legislação e por instituições criadas na época. Devido a essas mudanças, as transações nas Bolsas de Valores se constituíram em importante atrativo para as empresas. Conclui-se que o mercado de capitais nacional foi decisivo para estimular a indústria do Brasil no período, tendo sido tanto as alterações na legislação quanto nas instituições os elos fundamentais dessa conexão.

Palavras-chave: bolsas de valores. industrialização. instituições. legislação. mercado de capitais.

INTRODUCTION

The Brazilian industrialization is an object of study widely explored in the scientific literature, due to its profound economic and social consequences for the country. In this sense, its most concrete effect is the transformation of a rural country into an urban one, a process that became evident in the 1930s, but whose beginnings are permeated by deep academic debates.

An important part of the authors who have studied the process of industrialization in Brazil have emphasized the events of the 1930s, following Getúlio

Vargas' ascent to the central government, as a determining factor. For example, Fonseca and Salomão (2017), in an article on the historiographical debate on industry, provide an overview of the different approaches to this process. They caught the attention to the fact that Celso Furtado (1959) (and the *Furtadianos*¹), who was one of the greatest exponents of the Brazilian economy, consider that national industrialization really began in the 1930s.

Furtado (1959) interpreted the results of the Great World Economic Depression of 1929 as the catalyst for the national industrialization process that lasted until the import substitution policy adopted by the Brazilian government in the 1930s. In this regard, he highlighted the centrality of the coffee economy in the industrial transition at the beginning of the 20th century. Emphasized the impact of coffee cultivation on the growth of Brazil's infrastructure, especially in the case of the railroads responsible for transporting production, whose corresponding companies were already listed on the Rio de Janeiro and São Paulo Stock Exchanges before what he considered Brazil's first industrial boom, which occurred in the interwar period. Precisely because of the import substitution process, this industrial surge didn't need to implement a completely new structure, although it did increase it, because its pillars already existed.

For Fonseca and Salomão (2017), this interpretation was largely due to both the quantitative aspect, expressed by the significant number of new Brazilian companies during this period, and the qualitative aspect, characterized by the change in the state's approach to industry. They also considered the social aspect, which they called the "industrialization consciousness"² established in the 1930s – the effective transition of the country from predominantly rural to urban.

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¹ The term *Furtadianos* refers to authors who base their research theoretically and/or methodologically on the work of Celso Furtado. See, for example, Saes and Barbosa (2021) and ABPHE (2021).

² Fonseca and Salomão (2017) used this expression to refer to Fonseca's research (2003).

Another group of authors who studied the industrialization process in Brazil call attention to the end of the 19th century and the beginning of the 20th century as the decisive factor, when the first industrial outbreak *de facto* took place. This was the case, for example, with Dean (1969), Suzigan (1971) and Versiani (1980), who focused on industry before 1914, that is, before the events of the 1930s.

Versiani's (1980) study of industrialization and the export economy in Brazil before 1914, for example, softened Furtado's (1959) view – without, however, denying its very important role³. Furtado stressed that the increase in industrial capacity was linked to the banking reforms promoted between 1888 and 1889, when the supply of credit also expanded rapidly in the 1890s. Another relevant point he highlighted was the distribution of dividends by companies between 1889 and 1895, in which small companies paid proportionally higher dividends than large ones. He also pointed out that the forms of financing for this new industry included the capital market and the banking system, as well as the reinvestment of profits and dividends.

Musacchio (2009), in his book on corporate governance and financial development in Brazil between 1882 and 1950, examined the impact of legislation on the progress of the country's capital market during this period. He concluded that legislation played a crucial role in enabling this phenomenon. For example, after the *Encilhamento*⁴, companies were required by law to publish their balance sheets in widely circulated newspapers. The assets reported in these balance sheets include various industrial (e.g., breweries) and non-industrial (e.g., railroads) capital companies, as well as stocks and bonds as forms of financing.

Hanley (2005), in his book on the São Paulo Stock Exchange between 1850 and 1920, examined the impact of institutions on the country's capital market during this period. She concluded that while the thesis that there was a large flow of foreign capital into the country was true, capital of national origin ("native capital" in her words) was responsible for most of the investment in Brazilian industry.

It is clear, confirming Curado's (2013) conclusion, that this debate is deeply marked by the different theoretical and methodological starting points adopted by the literature. The fact is that in order to understand the process of Brazilian industrialization, it is necessary to study periods before the 1930s, regardless of whether one assumes that industry emerged before or after.

³ It should be noted that Furtado (1959) also pointed to this period as stimulating the industry, but with the difference that it was not decisive, as advocated by Dean (1969), Suzigan (1971) and Versiani (1980).

⁴ *Encilhamento*, as described later in this article, is the name given to the period corresponding to the euphoria of the Rio de Janeiro Stock Exchange at the end of the 19th century, which culminated in an acute national monetary-financial crisis.

The study of the capital market in the nineteenth and early twentieth centuries in the specific case of Brazil, although it may seem a strange task (given that the country was an empire under a slave system until 1889, for example), is essential to understand how an alternative form of financing for industry emerged, given that credit was rationed, banks essentially served coffee growers to the detriment of other groups, and the state was unable to meet these needs. It is based on the assumption, in line with Freddo and Vargas (2023), that a robust and diversified financial system, with the capacity to provide long-term funds for investment, is a necessary but not sufficient condition for economic development.

In view of the above, the general objective in this paper is to examine the development of the capital market and its relationship with industry in Brazil between the end of the 19th and the beginning of the 20th century. The underlying hypothesis is that the capital market in Rio de Janeiro and São Paulo was driven by changes in legislation and institutions created at that time. As a result of these changes, Stock Exchange transactions became an important attraction for companies.

The methodology for this research is qualitative, with exploratory purposes based on specialized bibliography of secondary sources. The inductive method was used to support the argument, starting from general contexts to arrive at specific considerations. The research is justified by the scarcity of studies on the relationship between the capital market and industry at the turn of the 19th and 20th centuries, with the intention of encouraging this discussion in the economic literature.

In addition to this introduction and the concluding remarks, the paper is divided into three sections. The first presents the formation of the capital market in Brazil between the late 19th and early 20th centuries. The second discusses the development of the capital market and national industry during this period. The third focuses on the experience of São Paulo.

I. THE EMERGENCE OF THE CAPITAL MARKET IN BRAZIL

In the following subsections, we will first review the historical experience of the capital market in Brazil between the late 19th and early 20th centuries, and secondly, how the protection of holders of financial assets was carried out during this period, particularly through legislation and institutions.

a) *The historical experience of capital markets in Brazil*

In the mid-19th century, Brazil's financial development was profoundly affected by the so-called Barrel Act (*Lei dos Entraves*), Number 1.083 of August 22, 1860, which required metallic backing – coin and gold – for bank issues. Its aim was to clean up the

issuance and trading of securities with the effect of currency. It established a restrictive economic policy, with strict supervision of the banking houses and a consequent reduction in the credit granted by them, especially as it stipulated that all the statutes and other documents of companies wishing to enter the market had to be sent for analysis and subsequent approval (or not) by the Council of State of the Empire. The resulting slowness of this process did not encourage companies to enter this market by capital opening on the Stock Exchanges (Gambi, 2012; Almeida; Croce, 2016).

However, according to Saes (1981) and Levy (1994), the end of the Paraguayan War (1964-1970) had a positive effect on the Brazilian economy, especially due to the recovery of the manufacturing sector. In addition, Brazilian coffee began to occupy a larger share of the international market, largely due to the successive declines in harvests in Java (Indonesia). Brazilian coffee also had the first railroads, which helped to reduce transportation costs, thereby improving the competitiveness of the product's exports.

Allied to this good momentum, in November 1882, the Trade Act came into force, which helped to create companies and promote Stock Exchanges throughout the country. Under the act, corporations no longer needed government approval to be incorporated except in certain cases, there was a clearer separation between business and personal resources, and corporations were allowed to issue bonds. The effect was rapid and progressive: from 1.9 companies registered in the national Stock Exchanges⁵ per million population in 1870, it rose to 3.8 companies in 1880, 6.4 in 1890 and 7.1 in 1900. The Trade Act was not the only one, and perhaps qualitatively it was not the one that guaranteed the most rights to investors, but it was the first to legitimize the Stock Exchanges in Brazil (Musacchio, 2009).

The importance of the Trade Act for the Brazilian stock market can also be seen in the capitalization peaks. In Musacchio's understanding (2009, p. 41), "the level of equity market capitalization rose from 10% in 1881 to in excess of 15% in 1886 and nearly 20% between 1895 and 1913". In addition to this act, in 1889, the then Finance Minister, Afonso Celso de Assis Figueiredo (Viscount of Ouro Preto), implemented an expansive monetary policy for the means of payment, mainly due to the abolition of slavery (1888) and the influx of large numbers of European immigrants into the country, with wage labor becoming the predominant form of employment in the national economy. This policy was characterized by the Banking Act of 1888 – in fact, Decree Number 3.403 of November 24, 1888, which

became Act in 1890 – which made it easier for this sector to issue money and invest in bonds and stocks.

But the central government in the 1890s – now in a republican Brazil – acted to curb the rapid and disorganized expansion of the capital market under a shortage of circulating currency. The Finance Minister, Rui Barbosa (1889-1891), increased the money supply in the economy by about 100%, which stimulated the creation of new banks. The volume of money (much larger than necessary) and the excess of credit without supervision created an environment conducive to speculation, with the emergence of ghost companies that traded and artificially valued their shares. This period was known as the *Encilhamento*, when the capitalization of the capital market increased from 15% to about 40% of the Gross Domestic Product (GDP) in one year. Several Brazilian investors bought fraudulent shares, and in 1891 their prices plummeted. Numerous non-ghost companies went bankrupt, and the government of the time was forced to develop new perspectives to try to stabilize the national economy (Musacchio, 2009).

After the *Encilhamento*, acts and decrees increased the percentage of a company's capital required before it could be listed on the Stock Exchange and the amount that entrepreneurs had to put up of their own capital before seeking investors. These acts and decrees were instrumental in providing greater protection for investors in the capital market (Musacchio, 2009).

At the end of the 19th century and the beginning of the 20th century, the stock market became more robust. A smaller number of companies participated in this market, but they were the largest, especially in the case of the railways called *Estrada de Ferro Leopoldina*, *da Companhia Estrada de Ferro Macahé e Campos*, *da Estrada de Ferro Sorocabana e do bonde Carris Urbanos*. The great growth in securities trading was made possible by the good economic times, with the adoption of the Gold Standard (1906-1914), the regulation of railway tariffs in the mid-1900s and the rise in coffee prices⁶. This stabilized the exchange rate, making it easier to attract foreign investors to Brazilian bonds (Musacchio, 2009).

As a result of this good economic *momentum*, the capital market gained strength. In 1913, 60% of the total capital of the Rio de Janeiro Stock Exchange came from bonds, which suggests that many companies were financed more by bonds than by shares. In this sense,

⁵ These are mainly the Rio de Janeiro Stock Exchange (*BVRJ*, founded in 1820) and the São Paulo Stock Exchange (first as the *Bolsa Livre*, founded in 1890, then as *Bovespa*, and since 2017 as *B3*). *Bovespa* fully incorporated the *BVRJ* in 2002.

⁶ In February 1906, the coffee revaluation policy, known as the Taubaté Agreement, was approved, the result of a meeting between the governors of the states of Minas Gerais, Francisco Antônio de Sales, São Paulo, Jorge Tibiriçá Piratininga, and Rio de Janeiro, Nilo Procópio Peçanha (later replaced by Alfredo Backer), and ratified by the President of Brazil (Afonso Pena). In this way, the international prices of the product were kept artificially high, guaranteeing profits for coffee producers (Ribeiro, 2011).

the *Jornal do Comércio* (a traditional newspaper dedicated to economy and finance) from 1882 to 1926 documented that practically all sectors of the Brazilian economy – especially agriculture, banks, ports, railroads, shipping, telephones, services, textiles and public services – issued bonds. The importance of bonds lies in the proportion of capital raised by companies at that time: on average, between 40% and 60% of the total amount came from bonds (Musacchio, 2009).

In the search for the relationship between the capital market and Brazilian industrialization, from the perspective of the development of the stock and bond market, it is important to highlight why and how investors were attracted to this market and what the conditions of entry were. The explanation, according to Musacchio (2009), is mainly due to the acts and decrees signed during the Empire and the early years of the Republic. These, in particular the 1882 Trade Act and Decrees Numbers 917 of 1890 and 454 of 1891 (all of which regulated the capital market and replaced the previous one in order to regulate it even more), provided protection against the power or mismanagement of company managers, creating new incentives for small investors to participate in this market.

Musacchio (2009) found that in Brazil, corporate statutes protected small investors, whether through votes at shareholder meetings or by limiting the power or salaries of directors and managers. These legal guarantees, together with the actions of the Brazilian government to ensure dividends to shareholders and monitor the activities of companies, were the main ways to attract investors to the country.

La Porta (2000) discussed the objective conditions for having strong Stock Exchanges in countries. The author argues that there is a basic set of six rules to attract small investors to the stock market, such as: i) allowing "Proxy Voting", a mechanism by which investors who cannot attend the meeting can have their vote counted by a proxy; ii) not blocking shares before meetings (some companies block shares so that the shareholder can't sell them days before the meeting); iii) cumulative voting or proportional representation, which gives small investors the opportunity to be represented on the board; iv) allowing small shareholders to question the decision of directors; v) giving shareholders the right of first refusal on new shares; vi) the power to call a meeting when the required capital is 10% or less.

Based on La Porta rules, Musacchio (2009) observed that, according to the legislation in force at the time, the Brazilian government provided only two of the six rules, i.e., it did little to protect the investor, and yet the country had the highest peak (14%) in the ratio of capital invested in the stock market to GDP. When the country began to follow five of La Porta's rules, i.e., to have great protection, from 1940 to 1990, this ratio fell to

an average of 8.5%. If we look at the United Kingdom in 1908, when it followed only one of the rules, it was one of the largest stock markets in the world. This leads us to believe that internal corporate issues – tradition and expectations of profitability, for example – do indeed have a huge impact on attracting investors to the capital market.

In Brazil, the role of the government was very important. Since 1882, companies were required by law to report their financial results to annual shareholders' meetings, which could analyze the companies' financial statements published in newspapers in the region where they were located. However, these protections and the transparency of corporate accounts were unable to restore investor confidence after the monetary flexibilizations of 1888, which increased the money supply and led to increased speculation in the financial market and higher inflation. To regain the confidence of the market, the government had to take measures to return to the good times before the *Encilhamento* crisis (Musacchio, 2009).

With this in mind, the President of the Federal Audit Court between 1895 and 1918, Dídimo Agapito da Veiga Júnior (1895-1918), outlined ways to prevent fraudulent shares from flourishing. He established that, in addition to what had been required since 1882, the issuance of new shares should be published in a newspaper with wide national circulation, with the names of the founders of the company, the contract with the bank or lenders and how much was paid to those involved in this intermediation, as well as a copy of the company's articles of association. In addition, those responsible for fraudulent actions were subject to legal sanctions, such as the payment of criminal fines or imprisonment. The new bylaws included provisions on corporate governance, voting rights, and the participation of the company's owners. The Federal Audit Court president's directives were put into practice, and investors were responsible for monitoring them, as they would have access to all these materials (Musacchio, 2009).

Given the economic turmoil of the 1890s, which did not stabilize until the end of the decade, the government also had to take steps to attract foreign investors. For example, it began guaranteeing dividends and underwriting the risk of investors who offered to finance investments, which helped greatly in the construction of railroads because the stock markets were still too small to support such large-scale projects. In addition, the government provided possible subsidies for investments, which minimized the information asymmetry⁷ due to the uncertainty of future income values (Musacchio, 2009).

⁷ In Contract Theory and Economics, information asymmetry refers to the study of decisions in transactions where one party has more or better information than the other (see Rosser Jr., 2003).

In terms of voting rights in companies, there were no non-voting shares in Brazil until 1932. Through the Brazilian Yearbook⁸, companies published data such as the number of shares required to vote. On average, shareholders had to own between 5 and 10 shares to be able to vote, and about 20% of all types of companies had a one share, one vote provision. However, there was a limit on the number of votes per share. For example, a large shareholder with 30% of the company's shares did not necessarily have 30% of the votes, so small shareholders were protected from abuse by large shareholders, and they also had the ability to form blocs to vote together to ensure their representativeness (Musacchio, 2009).

These rules suggested a degree of financial democracy in the country. However, workers in listed companies had no control over them. The cost of a trial was about 200.000 Réis (plural of *Real*, the currency of Brazil at the time), and the average worker's salary at the time was between 100 and 200 Réis. Thus, the democratic vote was essentially for the Brazilian elite, mainly landowners, university graduates (e.g., lawyers) and owners of large urban properties. Workers therefore had no part in this "democratic" market (Musacchio, 2009).

In this more regulated legal context in Brazil, Hanley (2005), focusing on institutional aspects, studied the phenomenon of the railway companies (which were the largest listed companies) to illustrate the pulverization of the capital market in Brazil. For example, between 1893 and 1905, the number of investors in the *Estrada de Ferro Companhia Paulista* doubled, showing that there was a "democratization" of the stock market (in the elitist framework mentioned before), in which not only the number of shares increased, but also the number of investors. In addition to this company, others – such as *Cervejaria Antártica*, *Estrada de Ferro Paulista*, *Estrada de Ferro Mogyana* and *Banco do Estado de São Paulo* – showed signs of more votes, and more votes were a promising way to increase corporate profits.

Avoiding concentration was central to the stability of this market between 1893 and 1905. The largest shareholders in Brazil at that time were the coffee growers, who, along with the government, invested heavily in the railroads. Decentralizing decisions allowed more peasants to participate in order to avoid family collusion that could compromise the management system of the companies that received investment (Hanley, 2005).

The organizations with the greatest concentration of power were precisely the family firms. As an example, the Matarazzo family (the wealthiest in

the country at the time) was at the top of the management of the bank of the same name, holding most of the shares without voting rights. The family eventually decided unilaterally to sell (or dissolve) their bank using their voting power (Hanley, 2005)⁹.

b) *Protecting Financial Asset Holders*

Creditor protection was linked to national bankruptcy acts and laws. Triner (2000), in his study of the banking system in Brazil, argued that in the historical period called First Republic (1889-1930), debt collection protection was outdated because national commercial acts and laws did little to delineate financial ownership, making it difficult for a bank to take possession of a defaulter's bank accounts. The author also pointed out that the legislation protected debtors more than creditors, so there were few incentives to become a creditor.

Musacchio (2009) disagreed with the concept proposed by Triner (2000) and showed evidence of a robust securities market in Brazil, which between 1850 and 1945 guaranteed the rights of holders with priority over other creditors in cases of bankruptcy. To explain how and under what conditions the country provided for this market to be prolific, the author identified important rights of bondholders, such as: recovery of guarantees in the event of default, priority of receipts, approval of the reorganization of the company's debt service, and the power to change the original managers during the reorganization¹⁰.

As seen previously, both the Trade Act of 1882 and the Decrees Numbers 917 of 1890 and 434 of 1891 were very important for Brazil's financial development. In addition, the Bankruptcy Acts of 1902, 1908 and 1929 were enacted to protect Brazilian creditors. These laws played a central role, because in countries where legislation is uncertain regarding the protection of securities, higher premiums will be demanded in relation to the risk of insolvency. According to Musacchio (2009, p. 164): "reducing uncertainty during bankruptcy can thus reduce the effect of unforeseen insolvency on the risk attributed to long-term debt contracts"¹¹.

⁹ Until 1957, the three largest shareholders of the most important companies listed on the São Paulo Stock Exchange controlled an average of 53% of the shares. They held about 55% of the votes. By comparison, in 1998, this situation was about 52% of the shares and about 74% of the votes, demonstrating greater concentration and less "democracy" in the sector at the same time in relation to the formation of the stock market (Musacchio, 2009).

¹⁰ For La Porta (1997, 1998, 2000), the more of these rights, the more robust the bond markets will be.

¹¹ Since 1769, with the "*Lei da Boa Razão*" (Good Reasoning Act, in a free translation to the English Language), (which established that when legal rules were silent, decisions should be made according to analogy, custom, and general principles of law), judges and lawyers were advised to cite the laws and jurisprudence of other nations (as long as they were "Christian, enlightened, and civilized"), with Portuguese-Brazilian laws becoming increasingly similar to those of other European countries.

⁸ The Brazilian Year Book was a catalogue sponsored by the Brazilian government and published in London that contained, among other information, data on all Brazilian companies listed on the Stock Exchange at the time.

Decree Number 434 of 1891 consolidated the legal and regulatory provisions governing corporations. It provided that the courts would be responsible for adjudicating bankruptcy cases. In the interpretation of Musacchio (2009), recovery rates were relatively high and there were basically three ways to reorganize during the bankruptcy process. The first was called *Forced Liquidation*, in which creditors had to go to court and ask for bankruptcy proceedings to be opened after proving that a company was failing or had stopped paying its debts. For the author, this was the most common way for creditors to protect themselves from company managers. After the declaration of forced liquidation, the case was assigned to the so-called *trustee of the bankruptcy estate* (the name given by the judge to the bankruptcy proceedings), and the debtor had to draw up a list of creditors to be summoned and thus begin the liquidation.

The second form of reorganization during the bankruptcy process, which was the simplest one for Musacchio (2009), was the *Concordats*. In this case, the debtors reorganized the payment plan before or after the bankruptcy announcement and submitted it to the creditors in a vote for approval or rejection. The third form was *Amicable Liquidation*, in which the debtors declared bankruptcy and the case could be taken to court. If they could not reach an agreement, control of the company passed to the creditors. With this type of arrangement, the company's managers and administrators were less likely to go to jail.

Musacchio (2009) gave examples of bankruptcy episodes in Brazil. In the case of the *Estrada de Ferro Leopoldina*, for example, English creditors requested bankruptcy proceedings in 1895-1896 (the first foreign case involving a Brazilian company). Another case occurred in 1915, the *Companhia Industrial e de Construções Prediais "O Prédio"* (a construction company), in which special creditors took over the company and paid off other creditors.

In addition, Musacchio (2009) pointed out how judges trusted bankruptcy trustees, for example by charging fees proportional to the assets they managed. A famous case of a company in which trustees played an important role was the *Cervejaria Bavária* in 1900, when they used the money available to pay off bonds and the last coupons of bondholders.

Musacchio (2009) also pointed out that Brazil had a pro-creditor character until the beginning of the Vargas administration in 1930. The constitutionality of bankruptcy changed course, and bondholders no longer had the same rights. From the point of view of the Vargas laborism, in the event of bankruptcy, the first to be repaid should be the workers, as instituted for this government in the Consolidation of Labor Laws (CLT, 1943). Debtors could avoid liquidation through the preventive concordat, in which the debtor would have two years to reorganize its debts and then pay them off

without the consent of its creditors. This is an important difference from the rules of La Porta (2000).

A brief explanation of the legal culture in bankruptcy cases is also necessary. For Musacchio (2009), pro-creditor behavior until 1930 was very much a function of the background and finances of the judges themselves. The author cites the case of two judges who belonged to the elite, one from São Paulo and the other from Rio de Janeiro, and who owned a lot of securities. In the sessions of the Supreme Court, both vigorously defended the right to property, which seemed to them to be the right thing to do according to their ideas and interests¹².

Upon reaching power the Vargas government, as part of the institutional rupture that occurred, all judges who were hitherto part of the Supreme Court were compulsorily retired and replaced by others without the approval proceedings of the Federal Senate or any other instance. None of the new judges sworn in the central government, for example, had a law degree from the University of São Paulo (USP) – the most prestigious in the country – because they did not support the new president of the Republic. As Pinheiro (2011) points out, these judges tended to be more concerned with social justice and the fight against poverty than with protecting creditors' rights in corporate bankruptcy cases.

II. THE DEVELOPMENT OF THE CAPITAL MARKET AND ITS RELATIONSHIP WITH THE NATIONAL INDUSTRIAL SECTOR

The first peak of Brazilian Stock Exchange activity, between the late 1880s and 1915, had a significant positive impact on the country's industrialization. The last decade of the 19th century was particularly important for this scenery because, although most of the population remained rural, the pattern of consumption changed significantly due to the emergence of an urban middle class, formed after the end of slavery in 1888 and the deliberate policy of European immigration to Brazil¹³. This population needed to consume a greater number of manufactured goods and services, as well as access to public transportation, with which national industry responded to these demands (Musacchio, 2009).

Data show that, after 1900, there was a significant increase in the number of manufacturing and service companies listed on the Stock Exchange in both Rio de Janeiro and São Paulo. The capital generated by these sectors boosted others that were already listed, such as railroads, banks and insurance companies. The

¹² A detailed explanation of this point appears in a subsection of chapter 7 of Musacchio's study (2009, pp. 181-184), entitled "Explaining Judges Attitudes toward Creditors".

¹³ On the formation of the labor market in Brazil, see Barbosa (2008) and Vargas (2017).

beginning of Brazil's transition from an agrarian to an urban country was financed by the huge issuance of bonds and shares (Musacchio, 2009).

In this process, there was a significant disparity when comparing the amount of capital coming from stocks and bonds with the amount of bank credit in the economy. Banks played an important role in financing coffee exports and the productive capital of companies, but the rest was acquired through stock market transactions. While bank credit fluctuated between 8 and 13% of GDP between 1906 and 1930, stock market capitalization in relation to GDP averaged 20% (Musacchio, 2009).

For Triner (2000), Brazilian banks were not interested in lending long-term capital, but rather in offering short-term loans to finance companies. The author suggests that borrowers used their personal connections to obtain loans, but the investments required larger sums than they could obtain through loans. They had to turn to the Stock Exchanges, as banks were reluctant to provide long-term loans. However, according to Hanley (2005), the reason why banks did not provide this type of loan was the strong competition among them, as well as the fact that they were very exposed during recessionary periods.

It is worth noting the importance of the Rio de Janeiro Stock Exchange, where Brazilian debt securities were traded, as well as the stocks and bonds of the major railway companies of the time, which were essential for reducing transportation costs in Brazil and the consequent integration of markets. Integration, protective tariffs, the success of coffee exports, and the influx of European immigrants were the main causes of the creation of the textile, food, brewing, glass, and tramway industries (Hanley, 2005).

The Rio de Janeiro Stock Exchange operated with listed companies from all over Brazil. Its transactions financed the construction of public infrastructure and were an important factor in accelerating the urbanization process. Highlight for companies such as the *Canadian Rio de Janeiro Tramway, Light and Power Company*, that invested in energy and urban transport operations in Rio de Janeiro (where its shares were traded) and São Paulo (Musacchio, 2009).

The Brazilian stock market also reflected the evolution of the national economy during this period. Examining primary sources such as the *Jornal do Comércio* between 1882 and 1926, Musacchio (2009) pointed out that until 1900, banks and railroads were the main companies on the stock market. After that, manufacturing and insurance also began to make up a significant part of this market.

Finally, it should be noted that Musacchio (2009) found that the patterns observed for Rio de Janeiro were the same as those found by Hanley (2005) for São Paulo. This allows us to conclude that the

significant increase in Stock Exchange transactions in Brazil during this period was also the result of macroeconomic stabilization with its entry into the gold standard and, consequently, the stabilization of coffee prices.

III. COFFEE ACTIVITY, THE DEVELOPMENT OF THE SÃO PAULO STOCK EXCHANGE AND ITS RELATIONS WITH THE SÃO PAULO INDUSTRY

Hanley's (2005) analysis of native capital, in contrast to Musacchio's (2009) examination of acts, laws and decrees, prioritized – through empirical analyses of its functioning – the verification of how institutions shaped the relationship of the capital market with Brazilian economic development.

For Hanley (2005), the most important thing for the São Paulo stock market from the end of the 19th century ahead was the role of the coffee growers in the development of the Stock Exchange. As in Dean's (1969) work, Hanley attests to the symbiosis between the capital of the coffee industry and the industrial capital of São Paulo. São Paulo was also the focus of Marson's (2012, 2015) work, in line with Hanley's perspective on the dominance of national capital, especially due to the large influx of immigrants and the accumulation of capital from the coffee industry throughout the state.

According to Hanley (2005), the growing demand for coffee, especially in the flow of international trade, was essential for São Paulo's productive surge, as there was greater investment and improvement in infrastructure, such as railroads and the Port of Santos, in parallel with the increase in technology used in the operationalization of activities. Static Brazilian capital (based on slavery and land ownership) was transformed into what the author calls liquid capital. The expansion of coffee created a high demand for loans, which fostered the growth of the capital market and the banking system.

Brazilian native capital also promoted the development of the São Paulo banking system, which played an important role in financing the industrial process. In this sense, Hanley (2005) defended the thesis that twentieth-century theories of Brazilian industrialization are mistaken when they focus on foreign capital as a form of financing and development in late industrializing countries – the cases of Dean (1969) and Topik (1987), for example.

According to Hanley (2005), the Trade Act of 1882 and the decrees of 1890 and 1891 led not only to the opening up of trade, but also to an institutional shift from the old idea of the personification of credit to more modern forms of obtaining financing. Previously, businesses depended on personal credits for start-up capital, and after that the process became more



dynamic as the growing data unmistakably indicated the development of the stock market.

While Musacchio (2009) emphasized the *Encilhamento* crisis as a consequence of the economic policy actions of Finance Minister Rui Barbosa (1889-1891), Hanley (2005) analyzed the period between 1898 and 1902 under the leadership of Finance Minister Joaquim Murinho, who had the task of restoring the value of the *Real*. Among Murinho's various initiatives, one was to reduce the amount of money in circulation in Brazil. Another was to increase taxes, which had a negative impact on the volume of trading on the stock market, especially in the manufacturing sector – even encouraging the emergence of illegal factories¹⁴.

The turn from the 19th to the 20th century was a difficult period, especially for the São Paulo Stock Exchange, which would not regain its dynamism until 1906. From then on, Brazil's continued industrial expansion led to a boom in securities issuance. And, according to Hanley (2005), this was an eminently São Paulo phenomenon, quite different from what happened in Rio de Janeiro during the same period.

Hanley's (2005) explanation for the São Paulo expansion of the Stock Exchange was the crisis of coffee overproduction in the previous two decades. Faced with the excessive accumulation of grain stocks, the states of Rio de Janeiro, Minas Gerais and São Paulo established the Taubaté Agreement (1906), drowning up the terms of an agreement for the states to purchase the surplus stocks. These stocks would be acquired through foreign loans, the interest and amortization of which would be paid with funds raised by adding a surcharge to each bag of coffee exported by the producers.

There were many disagreements in the implementation of the agreement, especially regarding the acquisition of resources and the indebtedness of the states, which kept Minas Gerais and Rio de Janeiro away from the proposal. These states had little involvement in the financing, buying and selling of shares. In fact, the reins of the process were taken by the government of São Paulo, which meant that the economy of the state of São Paulo would benefit from the appreciation of coffee resulting from the implementation of this complex operation. The coffee valuation policy allowed for a significant improvement in São Paulo's economic environment, as evidenced by the dynamism of the São Paulo Stock Exchange (Hanley, 2005).

Besides the coffee valuation policy, demographic expansion was also an important factor

in São Paulo's economic growth at the beginning of the 20th century. As economic activities and coffee farming itself still used the labor-intensive method (little mechanization), a greater number of workers represented a strong incentive to increase production. In addition to manual labor, the mass of immigrants to São Paulo brought with them industrial and entrepreneurial know-how, whose skills helped the state to develop and diversify its economy in the midst of the urbanization process (Hanley, 2005).

Hanley (2005) argues that some scholars of Brazilian industrialization have given too much weight to international capital in industrial development and have given little or no attention to the pre-World War I economic dynamism, in which the institutional construction to stimulate investment in the Stock Exchanges promoted diversification and rapid business growth. To the author: "The irrefutable size and importance of foreign capital was impressive. [...] These contributions, however significant, have obscured the domestic contribution to the development process during the pre-war period" (Hanley, 2005, p. 111).

Hanley (2005) also discussed certain financial innovations that took place after the proclamation of the Republic (1889). The main one was the Universal banks in 1890, which could engage in a variety of activities, from short-term commercial lending to long-term investment and mortgage lending, to stock issuance and ownership. Unlike other financial institutions, such as the Commercial banks (limited to just short-term activities), these would meet the needs of a wider range of economic sectors, such as agriculture, industry and commerce. Thus, even with the new government mechanisms, the stock and bond market remained the best form of financing for the emerging factories.

Finally, in defense of the importance of the capital market in Brazil, especially between 1880 and 1920, Hanley (2005) stated that the Stock Exchanges significantly stimulated industrialization by financing the emergence of new companies in Brazil. In addition, the same capital market was responsible for the installation of urban infrastructure, such as electricity and transportation, through the issuance of securities.

Both authors, Hanley (2005) and Musacchio (2009), converge on Brazil's Pre-World War I economic experience as an example of good institutional policy after exchange rate stabilization and the establishment of a legally secure macroeconomic environment. Complementary in their interpretations, both differ in their emphasis on each of these aspects, with the first focusing more on institutions and the second on legislation. Thus, the emergence of corporations and the strengthening of banks were direct consequences of this combination. Brazil overcame a predominantly personalized economy – in which good investments were the result of chance (or patronage), when an agent with sufficient know-how found another willing to invest –

¹⁴ "The taxes were so high on products considered 'artificial' by the government that manufacturers in some cases could not afford to continue to produce. This problem was exacerbated by competition from illegal manufactures that popped up in the countryside to produce the same products – beverages, tobacco, shoes, and candles, among others – without paying the tax" (Hanley, 2005, p. 93).

with the advent of banking and financial reforms that made credit and the process of starting a business more transparent and impersonal.

IV. CONCLUDING REMARKS

The general objective in this paper was to highlight the development of the capital market and its relations with industry in Brazil between the end of the 19th century and the beginning of the 20th century. The productive surge of this period supported the late consolidation of national industry through import substitution from 1930 onwards, with its most concrete effect being the transformation of a rural country into an urban one. Hence the importance of understanding the Brazilian industrialization process before the 1930s, regardless of whether one assumes that industry emerged before or after.

As a result of the research carried out, it was hypothesized that the capital markets in Rio de Janeiro and São Paulo were driven by changes in legislation and institutions created at the time, which made transactions on the Stock Exchanges an important attraction for companies. From the legislative point of view, the most important were the Trade Act of 1882 and the Decrees Numbers 917 of 1890 and 454 of 1891, the Banking Act of 1888 and the Bankruptcy Acts of 1902, 1908 and 1929. On the institutional side, the creation of the *Universal Banks* (1890), the Taubaté Agreement (1906) and the emergence of new companies during this period are the highlights. The conditions for industries to consolidate themselves as the main source of Brazilian economic growth took shape in particular from this engendering, supporting a structural change in the country.

The great importance of the coffee economy in this process is clear, both in terms of capital accumulation and the creation of infrastructure, especially in transportation and energy, since these sectors had the largest companies listed on the Brazilian Stock Exchanges between the end and beginning of the 19th and 20th centuries, also ensuring the flow of raw materials and products for the nascent industry. However, it is understood that the capital market was the main financier of industrialization and modernization of the economy from the end of the 19th century until 1930.

Hence, the capital market, especially in Rio de Janeiro and São Paulo, gave great impetus to an urban and republican Brazil: it favored the organization and marketing of bonds and stocks, promoted investor confidence, disciplined credit and financed investment in country's nascent industry.

The acts and decrees of late imperial Brazil contributed to the modernization of national finance, while the complementary legislation and new institutions of the republican regime broadened and deepened this

movement. The early 1890s were marked by the *Encilhamento*, but after this destabilizing experience for the economy, mechanisms were created to increase investor confidence. This confidence came from the ability of investors themselves to check the balance sheets of companies in widely circulated newspapers, as well as from financial democracy devices, especially the protection of small investors and other bondholders. This experience was mainly national, favoring the capital market to finance Brazil's productive boom.

We conclude, confirming Hanley (2005) and Musacchio (2009), that Brazil's Pre-World War I economic experience was an example of good institutional policy after the stabilization of the exchange rate and the establishment of a legally secure macroeconomic environment, with the emergence of corporations and the strengthening of banks as direct consequences of this combination. Brazil overcame a predominantly personal economy with the advent of banking and financial reforms that made credit and the process of starting a business more professional and impersonal.

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