

Brazil: Stock Markets and Corporate Credit Now Driving Financialization?

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How to cite this paper: Lavinás, L., Araujo, E., & Gentil, D. L. (2022). Brazil: Stock Markets and Corporate Credit Now Driving Financialization? *Theoretical Economics Letters*, 12, 1074-1094.

<https://doi.org/10.4236/tel.2022.124059>

Received: May 31, 2022

Accepted: August 16, 2022

Published: August 19, 2022

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Abstract

The present article seeks to demonstrate that, despite the steep deterioration in social and economic indicators in the midst of an unprecedented social, political, and economic crisis, Brazil seems to have entered a new stage of the process of financialization, now shaped by the dynamics of the capital market. We briefly recall the different phases of financialization in Brazil from elicited- to mass-based, underlining how the sharp decline in the prime rate as of late led to a strong valuation of financial assets in the stock market. We test the hypothesis of a new financialization pattern, now driven by the stock market, using in our regression model a sample of 81 different segments (non-financial) from the Economatica platform, from 2010 to 2019. The results indicate a change of command in the finance-dominated accumulation regime in Brazil, that is, corporate financialization is now also determined by the stock market valuation process, due to the fall in return on financial investments (notably government securities). Selic-driven financialization has been substituted by other forces, such as corporate credit and—a relevant new factor—investments in shares.

Keywords

Stock Markets, Corporate Financialization, Brazilian Economy

JEL Cod.

E44, O11, O54

1. Introduction

Brazil has been the subject of studies—pioneering ones, albeit positioned outside

of a global conceptual framework, in light of their focus on the process of domestic financialization—that sought to understand how domestic firms underwent financial integration.

This trend became more pronounced during the 2000s. While the social-developmental thought was advancing, driven by the commodities cycle that inaugurated a new period of economic growth (2003-2013), signaling promising developments, a critical scholarly emerged drawing attention to a little-studied phenomenon that had been gaining central importance: the process of financialization of the Brazilian economy and of the sphere of social reproduction. Although still few in number then, these studies suggested that one of the causes of the low growth that prevailed after the achievement of economic stabilization was the fact that Brazilian companies progressively shifted their investments to capital markets. Preference was given to government securities remunerated by the Central Bank's sky-high base interest rate.

The present article seeks to demonstrate that, despite the steep deterioration in social and economic indicators in the midst of an unprecedented social, political, and economic crisis, this period saw a new stage of the process of financialization in Brazil, now shaped by the dynamics of the capital market. The most severe contraction in the Brazilian economy in the past century, marked by a deep recession in 2015-2016 (negative GDP growth of 7.2%), followed by three years of economic stagnation (growth of around 1.1% p.a. for the 2017-2019 period), with an international context of near-zero interest rates, led to a shift in macroeconomic policy. The prevailing economic paralysis dispelled the myth of the Brazilian Central Bank's base interest rate as an anchor of stability. The Selic prime rate was knocked down to record-breaking lows, compromising the rentier profits indexed to it, which embodied the long-standing, powerful coalition of rentier and financial interests (Bresser Pereira et al., 2019; Lara-Rezende, 2017; Erber, 2011) at the helm of the Brazilian State. We argue that a new phase of corporate financialization (Erturk, 2020) was ushered in, marked by competition amongst firms now taking place on the capital market, and focused on the valuation of their financial assets.

In what follows we provide empirical evidence to support that assumption, after synthesizing the paths taken by financialization in Brazil. After this brief introduction, section two overviews the recent debate on financialization in Brazil pointing to the growing convergence among certain swatches of heterodox scholars that high Selic rates, and consequently, wide spreads have encouraged the financialization of non-financial firms, by guaranteeing significant financial profits. Section three recaps in a nutshell the capital market's ups and downs in Brazil over 30 years, from the mid-1990s until 2021. This section also highlights regulatory mechanisms that had contributed to bring about a structural shift in the regime of accumulation. There, we present the opposed trajectories of the Bovespa Index and the Selic rate since 2016-2017, leading, in our view, to a change of command within the finance-dominated accumulation regime: from

financial investments in government securities towards stock ownership.

To test this hypothesis, the following section builds on a dynamic panel data model using the Generalized Method of Moments (GMM). Data were drawn from Economática. We brought together on an unbalanced data panel of non-financial companies from 81 different segments, from 2010 to 2019. The findings corroborate our assumption that, in the aftermath of the 2015-2016 sharp economic recession, corporate financialization shifted course, this time driven by the logic of shareholder value primacy and the stock market valuation process, along with financial gains in credit markets. Finally, by way of conclusion, we raise concerns as to whether this trajectory is sustainable in the medium and long term if the Selic rate would revert to grow.

2. Taking Stock of Financialization in Brazil

In an early analysis, Braga (1985) was the first to capture the precocious financialization of the Brazilian economy, which had been underway since the mid-1970s. With the end of the so-called economic miracle, led by marked GDP growth, Braga indicates that wealthy households, companies, and banks began prioritizing the accumulation of financial assets to the detriment of financing productive investment—which would have meant tying up capital during a period of widespread uncertainty. As Bruno et al. (2011) and Araújo et al. (2012) have confirmed, this process was aided by the creation of institutional mechanisms for the monetary correction of prices and salaries and financial assets that made it possible to compensate for past inflation, fueling its steep rise.

The fiscal and external-debt crises of the 1980s helped to pave the way for a financial expansion and unprecedented banking concentration, sparked by inertial inflation. It is worth recalling that over the 1980s, the inflation rate per year rose from 95.62% in 1981 to 1972.91% in 1989. In the year preceding the implementation of the Real Plan (1993), it reached 2477.15% (IBGE, Contas Nacionais, Historical Series). With the backing of a State burdened by debt in foreign currency and unable to rein in devaluation, the banking and financial sector during this period developed off the inflationary gains derived from the public debt in overnight operations (Lavinás et al., 2019). The returns were constantly updated by the mechanism of monetary indexation (adjusted by the national consumer price index). The implementation of “indexed-based money” or “financial currency”, as it was known, kicked off the process of financialization in Brazil, led in this first period by inflationary gains. While the process remained incipient throughout the 1980s and early 1990s, it would attract and benefit elites and non-financial companies, fortifying the growing protagonism of the banking and financial sector with grave consequences for income inequality and gross fixed capital formation (GFCF).

The Gini index¹, which had already reached a remarkable 0.58 in the early 1970s, rose to 0.61 in 1990 (Neri, 2012). Meanwhile, a drop-off in investment

¹Here, measured by income from main occupation for people over age 15.

exacerbated by the foreign debt crisis of the 1980s hampered the diversification of industrial production, disrupting catching up strategies, and marked the end of the developmentalist policies (Bresser Pereira, 2016) of the military dictatorship (1964-1985).

A historical analysis of the investment rate in Brazil reveals near-unflagging growth from 1930 to 1979, going from 9.67% of GDP to 23.4% over the period in question (IBGE, Contas Nacionais, Historical Series). This performance was stoked by political and legal decisions, among which macroeconomic policies designed to expand gross domestic fixed capital formation, expansionist fiscal policy, and low-interest, pro-credit monetary policy. These decades also brought a rise in the rate of public investment in the manufacturing industry, with the government deepening its intervention into the configuration of the country's productive system and its capacity for sustaining demand. This explains why the 1980s brought the peak of investments in Brazil.

What followed was a rupture in the pattern of Brazil's growth, as well as in state intervention in the economy. By the same token, as stated by Lavinás et al. (2019), "the banking and financial sector, consolidating itself as a hegemonic sector, guided the institutional transformations that led to the commercial and financial liberalization of the 1990s" (page 4).

Starting in the 1990s, a macroeconomic regime based on neoliberal precepts, privileging price controls, worked to eliminate mechanisms for economic intervention, pared back public investment, and curtailed not only private investment but also growth, as seen in the modest expansion of Brazilian GDP after the return to democracy (1985)². For years on end, austere inflation-control targets were used to justify sky-high real interest rates, sparking the second phase of financialization in Brazil—now rooted in interest-based and other financial incomes (Bruno et al., 2011). The latest front for financial accumulation became derivatives and fixed-income securities tied to the public debt, at nominal and real interest rates that were much higher than their international counterparts (Araújo et al., 2012).

The first phase of financialization, driven by inflationary gains from 1981 to 1994, was necessarily limited and circumscribed to the elite and firms by virtue of the low degree of financial inclusion and bankarization prior to the eve of the 21st century. Drawing on Becker et al. (2010), Lavinás et al. (2019) dubbed it "eliticized financialization." By contrast, the advent of the 2000s brought a new model for financialization, rooted in interest-bearing capital, and saw it take on an entirely new scope boosted by a major expansion in credit under Workers' Party administrations (Lavinás, 2017) and subsequent acceleration in the indebtedness of non-financial companies and, above all, households, an unprecedented phenomenon in Brazil. In parallel, the country's deindustrialization process continued to accelerate.

This second phase of "mass financialization" prevailed from 1995 to 2016.

²From 1994, when high inflation was finally reined in, to 2020, output grew by just 2.2% p.a.

Under an inflation-targeting regime adopted in 1999, inflationary gains have been substituted by high interest income³. **Figure 1** shows the spread between the IPCA (Consumer Price National Index) and the Selic base interest rate, set by the Central Bank. It should be underscored that throughout the 2000s, Brazil's internal public debt has been heavily concentrated in both fixed (Selic-indexed) and floating interest rates securities, the return on which has tended to outpace the base interest rate, except from 2019.

Initially focused on assets connected to the internal public debt (driven by the Selic prime rate), changes in the monetary regime also set the macroeconomic groundwork for the interests of high finance to increasingly highjack public services and social security (Lavinias et al., 2019). Rising public and private indebtedness became the basis for a new pattern of rentier growth.

The second decade of the 2000s was marked by the rise of austerity policies⁴, leading to a chronic underfinancing of social programs—a trend that has compromised the quality and coverage of a broad range of public services in health-care and education, to say nothing of repeated alterations to the pension system.

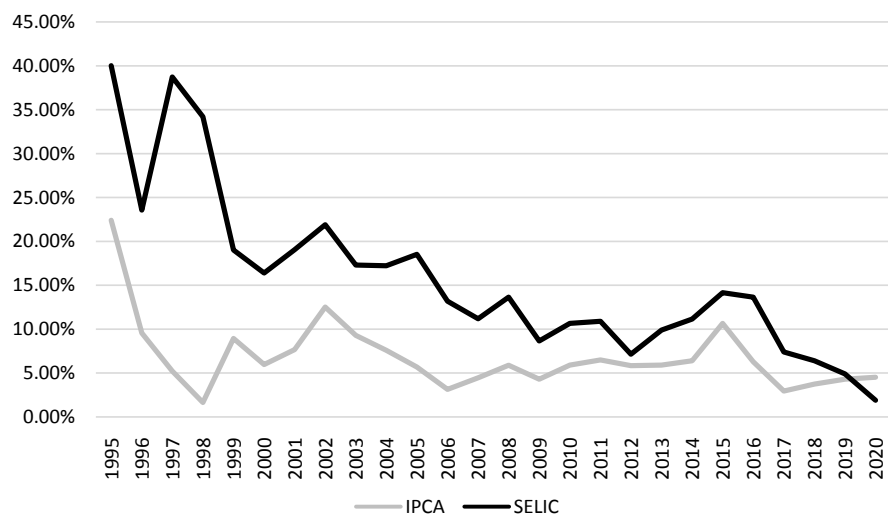


Figure 1. Interest rate (Selic) and inflation rate (IPCA) in Brazil (% year). Source: IBGE, National Accounts Time Series (IPCA) and Brazilian Central Bank Time Series (SELIC).

³The tendency to the real appreciation of the exchange rate then observed—undermining the performance of the industrial sector, which worsened drastically—was a consequence of the persistence of extreme high interest rates in the Brazilian economy. High real interest rates are the main factor in attracting speculative capitals, which promote the accumulation of international reserves. Because the financialization process expanded in a context of high real interest rates, the appreciation of the exchange rate compromised Brazil's external industrial competitiveness and ended up pushing further a premature de-industrialization.

⁴Reforms approved after 2015 not only implied lower economic security and social protection, but also led to a reduction in the provision of public services. In 2016, the new fiscal regime, also called the spending ceiling, was turned into a constitutional amendment. This meant that federal expenditures for each year cannot increase beyond the inflation of the previous year. Such a measure implies a real freezing of the total expenses of the Federal Government for the next 20 years. This change, in addition to configuring a package of reforms that presents a certain “institutional rigidity”, is also in legal terms “irreversible” in the short and medium term (See Pinto, 2016 and Orair & Gobetti, 2017).

As a consequence, financial markets have taken over public provision; those able to pay (to access private education or purchase private health insurance) and those able to go into debt (by taking out student loans, using consumer credit, or paying by installments) were thrown into the arms of financial markets. The transformation of social policy into collateral (Lavinás, 2018, 2020) has deepened the process of indebtedness that ballasts rentierism even as it facilitates the re-commodification of the sphere of social reproduction, converting the middle and working classes into consumers of an endless variety of financial products and services.

The collateralization of social policy means cutting the transactional costs and the risks inherent to the expansion and diversification of financial markets. Hospitals, laboratories, healthcare plans, and private colleges came into the sights of major international and domestic capital-market investors. This meant that the provision of services—once the constitutional duty of the State—was given a new priority: shareholder profit. In the Brazilian case, those shareholders were major international financial groups. Slowly but surely, fund managers became the indirect managers of social policy (Lavinás & Gentil, 2018).

This phase of mass financialization, the defining characteristics of which are by no means exclusive to Brazil, but rather dovetail with others under a regime of accumulation dominated by global finance, stretches over two decades but gains steam after 2004. This is when a new period of economic growth, driven by the commodities boom and the expansion of credit-fueled mass domestic consumption, brings a slight uptick in productive investment, which rose to 21.1% of GDP in late 2013. The recovery, however, would be short-lived; the slowdown of economic activity and subsequent exacerbation of the redistributive conflict would pave the way for a dire political crisis, culminating in the impeachment of then-president Dilma Rousseff (August 2016). This led to a new dip in the investment rate, which had sunk to 15.4% of GDP by early 2020 (IBGE, Contas Nacionais, Historical Series), the lowest in fifty years.

In parallel, levels of inequality underwent a similar deterioration. Despite real increases in average earnings from 2004 to 2013, thanks to the expansion of formal jobs, the indexation of the minimum wage above inflation and a better coverage of welfare schemes, the Gini coefficient regressed significantly from 2015 onwards, due to the worst recession ever experienced by Brazilians. The reversal of the trend is explained by the fact that the lower quintiles of the distribution experienced a considerable decline in their household income, especially the lowest one (−11.5%), while the top quintile registered a real increase of 6% (Lavinás, 2020). Anti-poverty programs like Bolsa Família were slashed as part of drastic budget cutbacks in response to the recession, failing to offset income losses among the most vulnerable. In 2019, the Gini index⁵ reached 0.54 (IBGE PNADc 2019) as compared to 0.49 in 2014 (IBGE PNAD 2014), which had been its best performance since data collection began in Brazil.

⁵Calculated using average per capita household income.

As [Fellows \(2019\)](#) has demonstrated in an analysis of the behavior of over 550 non-financial Brazilian companies, the financialization of such companies deepened between 1995 and 2018. The author locates one of the causes of this in the search for financial investments as a replacement for productive investments which brought lower returns during certain periods, especially at times of sluggish economic growth. Secondly, non-financial companies' access to financial markets (whether directly, through internal management changes, through participation on business councils, changes in management incentives; or indirectly, through an increase in the company's market value given access to credit lines and greater liquidity) led them to put the lion's share of their resources toward financial assets, compromising their productive investments.

Similar conclusions may be found in [Feijó et al. \(2016\)](#). Upon examining the relationship between financial integration and structural change, the authors observe that in the case of Brazil, the financial liberalization that followed the opening of the Brazilian economy in the 1990s did not strengthen industry in the production structure. On the contrary, they associate Brazil's premature deindustrialization to a growing dependency on foreign savings, which entailed maintaining high real interest rates and non-competitive real exchange rates. As a result, the macroeconomic context failed to stimulate capital accumulation, and incentivized the financialization of non-financial firms.

3. Amidst Multiple Crises, the Stock Market Surges and Credit Picks up

Ever since the era of major privatizations under the Cardoso administration (1994-1998), which took place at the same time as the financial opening of the Brazilian economy, the performance of the country's capital market had been kept in check. As shown by [De Freitas and Prates \(2001\)](#), by reducing the then-existing barriers to foreign portfolio investment in the domestic financial market and making it easier for residents to access new forms of external financing, the Cardoso administration had hoped to stimulate the primary market by lending greater dynamism to stock markets, in step with the nation's financial opening and the possibility of investors participating directly in the market. Even so, "the Brazilian stock market remained a marginal source of financing for Brazilian companies" (p. 92).

According to the authors, not even the development of the secondary market had a significant effect on the primary market. Factors both abroad and at home, they argue, worked from 1998 onward to foil attempts to boost the value and attractiveness of the Brazilian stock market. On the foreign front, institutional investors' steps toward emerging countries in a move to diversify their portfolios were halted by the Russian and Asian crises, as well as the emergence of a high-risk local market for American investors, who fled Bovespa and returned to the domestic exchanges. On the Brazilian front, the imposition of taxes on foreign exchange operations disincentivized stock purchases via Bovespa, while na-

tional blue chips began trading on the American stock market as American Depositary Receipts, or ADRs.

In Cardoso's second term, however, the implementation of stricter standards for transparency and corporate governance post-2000 (which marked the birth of Bovespa's Novo Mercado, or New Market) and the reform of Brazilian corporate law in 2001 extended more protection to minority shareholders and made way for a new stage of capital-market expansion and consolidation.

When the Workers' Party came to power in 2003 with Lula da Silva's election to the presidency, one of the administration's goals was to encourage pension funds to participate in the capital market. This evidently entailed an increase in the number of individual capitalization accounts, deepening the pension reform begun by Fernando Henrique Cardoso. Under union management, pension funds, investment funds and open pension funds would play a key role in fundraising by broadening internal savings, the idea being to finance private investment and promote a new cycle of economic growth (Soria e Silva, 2011).

Indeed, from 2003 to 2010 (spanning Lula da Silva's both tenures), the capital market swelled, with 128 companies going public. On the regulatory front, a reduction in the tax on capital gains for variable income funds (from 20% to 15%) and a tax waiver for monthly stock sales under BRL 20,000 drew new investors to the Brazilian stock market. Moreover, the Securities Commission expanded its oversight of market agents and passed regulations that promoted transparency and ensured higher-quality information from companies, providing investors with a greater degree of security (Da Costa, 2010).

However, capital market dynamics did not progress as expected post-2010. The relatively high level of the Brazilian base interest rate was chiefly responsible, as it made government bonds far more lucrative than other assets, as well as inherently safer. Meanwhile, broadened credit concessions with rates heavily subsidized by the Brazilian National Development Bank (BNDES) after 2010 made companies less tempted to raise funds on the capital market.

The continually high Selic rate over this period was a boon for pension funds and fully-funded schemes, which were soon the largest holders of federal public debt. While they had held 17.7% of such assets in 2007, by 2018 they had accumulated 24.5% (Brazilian Central Bank, 2019). The result was a lack of the hoped-for long-term funding for investment, since over 90% of their equity went toward fixed-income securities (Gentil, 2020).

In order to characterize the advent of the capital market as the new driving force behind financialization post-2016, we should observe the behavior of a few key related variables. **Figures 2-4** follow the evolution of the base interest rate; the expansion of personal credit, as expressed in the volume of new loans; and IBOVESPA⁶, the Bovespa Index, vis-à-vis the evolution of GDP for the period

⁶The Bovespa Index represents the average performance of leading shares traded over recent months on B3 S.A., the São Paulo stock exchange. According to B3's website, the index "is comprised of stocks and units of companies listed on B3 that meet the criteria described in its methodology, accounting for about 80% of the number of trades and the financial volume of our capital markets."

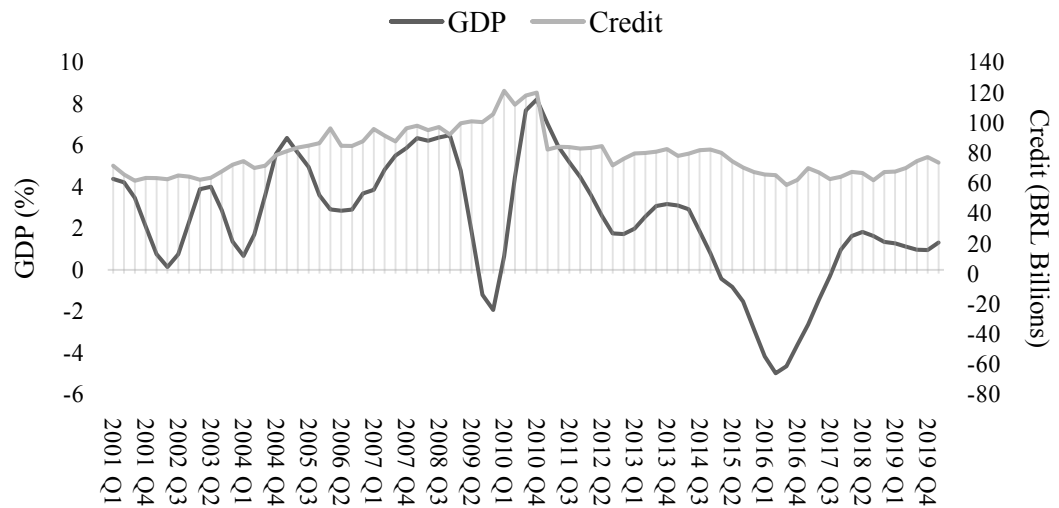


Figure 2. Brazil, GDP growth rate and non-earmarked credit concessions to households, 2001-2020 (Q1). Source: authors' elaboration. Data: Brazilian Institute of Geography and Statistics and Brazilian Central Bank. Quarterly moving averages. Credit concession: BRL constant values as of March 2020 adjusted according to the Extended National Consumer Price Index-IPCA.

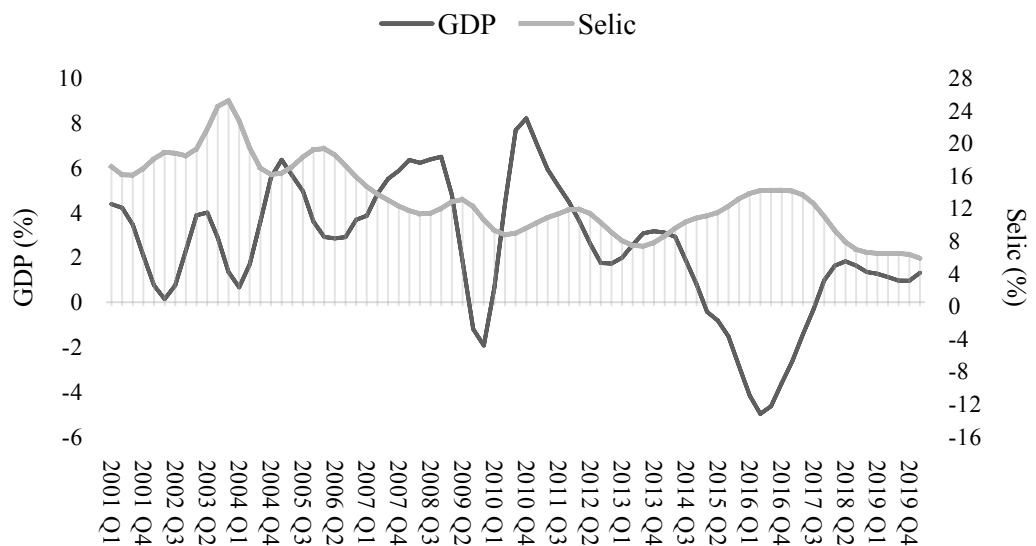


Figure 3. Brazil, GDP growth rate and Selic prime rate, 2001-2020 (Q1). Source: authors' elaboration. Data: Brazilian Institute of Geography and Statistics and Brazilian Central Bank. Selic rate on annualized values. Quarterly moving averages.

2002-2020 Q1. The underlying database is quarterly and drawn from a variety of sources. Multiple scales made it impossible to compile all the data into a single graph.

One initial observation is the correspondence between the trend toward increased credit (Figure 2) and positive variation in the Bovespa Index over time (Figure 3), a few plateaus, and valleys over time notwithstanding. On the contrary, the Selic has traced a downward trajectory (Figure 3), with the exception of a few notable spikes in 2009, during the global financial crisis, and in 2013,

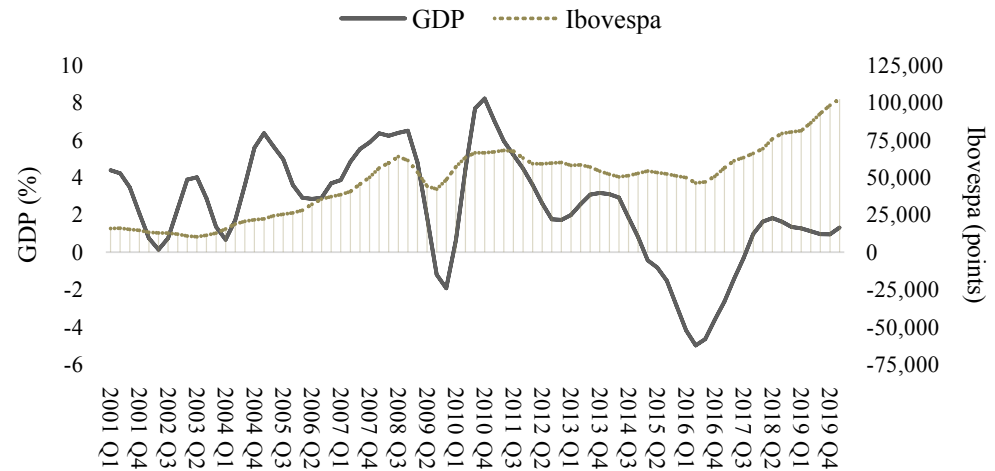


Figure 4. Brazil, GDP growth rate and IBOVESPA index, 2001-2020 (Q1). Source: authors' elaboration. Data: Brazilian Central Bank and Brazilian Mercantile & Futures Exchange (BM&F). Quarterly moving averages.

when Dilma Rousseff's administration failed to stimulate economic growth⁷. However, the largest spike in the base interest rate would come amidst the punishing recession of 2015-2016, after which it continued to fall apace.

Of particular interest is the contrast between the trajectories of the Bovespa Index and the Selic rate in 2016-2017. As the graphs indicate, while transactions on the stock market ballooned—reaching the 100,000-point mark for the first time, in July of 2019 (Figure 3)—the Selic rate began a remarkable slide, down to a historical minimum of 2.25% in June 2020 (Figure 2) in the thick of the crisis provoked by the coronavirus pandemic.

These directly opposed trajectories signal changes in investors' preferences vis-à-vis the financial market, given the deterioration of the macroeconomic context. Personal credit also begins to bounce back after January of 2017, tracking along with a fleeting economic recovery. This should not be taken as a sign of more affordable financing, as the spread on new loans in relation to the Selic rate remained practically untouched, an average of about 30 percentage points above the Central Bank's base rate (Brazilian Central Bank, 2020: p. 44).

This change of command in the finance-dominated accumulation regime would seem to indicate that the fall in return on financial investments (notably government securities) remunerated by the Central Bank's base interest rate has reconfigured the logic of financialization, a shift that calls for explanations.

4. An Empirical Investigation into the Different Waves of Financialization in Brazil

The convergence of capital around B3 S.A. (the Brazilian stock exchange) in re-

⁷The so-called macroeconomic matrix tried unsuccessfully to stimulate the economy through a combination of three economic policy instruments: low interest rates, devalued currency, and cost-cutting, the latter associated with massive tax breaks that favored capital (Lavinás, 2017; Lavinás & Gentil, 2020).

cent years may be seen in its remarkable performance (**Figure 4**) beginning in 2016. In 2003, the first year of the Workers' Party in the presidency, the total volume of financial assets traded on B3 was a modest BRL186 billion. In just four years' time, that figure would pass the BRL 1 trillion mark, hitting BRL 1.2 trillion in 2007. After a ten-year lull, the stock market became newly attractive, repeatedly trending upward from 2017 on. In 2019, total trades stood at BRL 3.6 trillion, yet another record.

Meanwhile, as demonstrated by **Figure 4**, the BNDES has seen a steep plunge in its lending to companies from 2014 onwards, after a period of great extension of subsidized productive financing from 2006 to 2013 (despite a brief pullback in 2011-2012). The second wave of sharp increase in stock transactions on the B3 starts at the end of a two-year period of acute recession (2015-2016), while BNDES loans continue in freefall; in March 2020, as the coronavirus pandemic began sweeping over Brazil, they plummeted to a balance equivalent to the values recorded in 1995 (**Figure 5**).

Indifferent to the devastation wrought by COVID-19 in Brazil since March of 2020, the capital market remains financial capital's preferred destination: in the first six months of 2020 alone, it saw movement of BRL 3.6 trillion, which had been the record-setting total of the year before (*Insights, 2020*). The number of retail investors has kept pace with this dizzying growth in the stock market, rising from 85,500 in 2003 to 3.8 million in mid-2021. The biggest leap came in 2019-2020, when more than 2 million individual investors joined the B3 (B3 2021).

How to explain such dynamic performance amidst such crushing crises, tens of millions unemployed, massive capital flight⁸, and scrapped promises of a new cycle of growth?

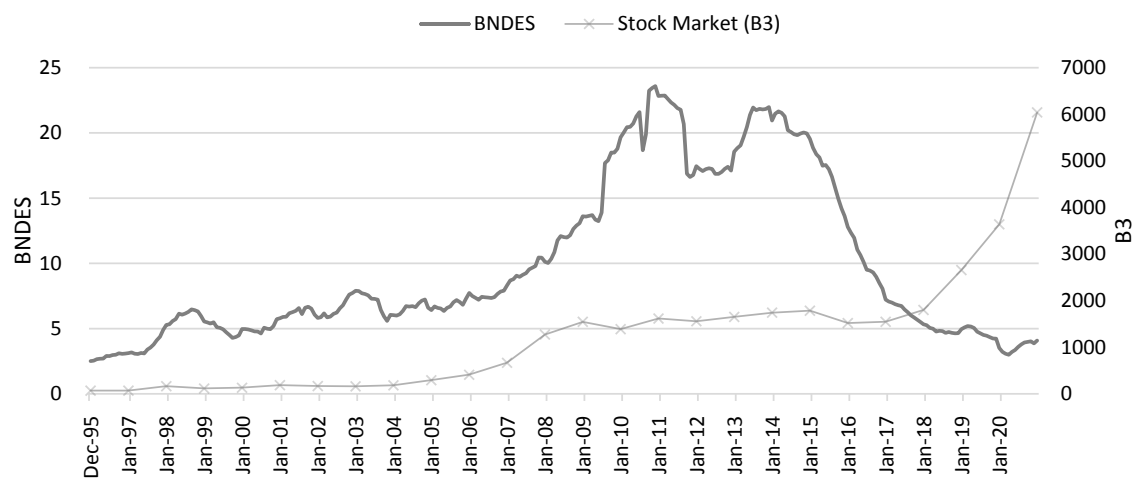


Figure 5. Total credit allocated by BNDES to Legal Entities and volume traded at B3 (Brazilian stock exchange)—BRL billions 1995-2021. Source: BNDES and Economatica Time Series. Authors' elaboration. Constant BRL values as of July/2020 adjusted according to the Extended National Consumer Price Index—IPCA. Data from 01/01/1995 to 31/12/2020.

⁸Between January and July of 2020, net foreign-capital outflow from the B3 was on the order of BRL 81.4 billion (*Valor Econômico, 28/07/2020*).

As indicated above, the most relevant factor would seem to be the monetary policy of low interest rates along with the atrophy of Brazilian public banks, the national development bank (BNDES) chief among them. With real short- and long-term interest rates in freefall in Brazil and in core countries, the stock market has become the latest route to profitability for financial capital. Likewise, it has also attracted individual investors (mostly young middle-class people) who once held treasury bonds but saw their profitability fall with the decline in the prime rate.

Furthermore, lower interest rates encourage companies to take out loans to buy back their own shares and/or invest in other companies' shares. In the first case, the goal is to reap profits for their own managers, who are remunerated through those stocks, as are their shareholders. In the second case, the aim is to bring in speculative profit from the stock market. In this new phase of financialization, rather than promoting productive investment by companies, rock-bottom real interest rates have reinforced shareholder gains and undermined the recovery of the real economy.

It should be emphasized that international financial conditions played a crucial role in cementing this trend. Policies of quantitative easing and near-zero interest rates in developed economies fed demand for higher-risk shares, boosting foreign investors' acquisitions of shares on the Brazilian stock market.

Again, this shift in the role of public banks (deprived of their leading role as financial agents of development) and the deepening of the neoliberal agenda (taken to even more radical lengths in the post-impeachment period) encourage firms in the productive sector to replace subsidized public credit with fundraising on the capital market, the result being an expansion of follow-on offerings.

The acceleration of mergers and acquisitions—or, in other words, of the process of concentration and financialization—has tended to increase high-income households' asset liquidity, leading to new turnover of that capital on the stock market.

Fiscal policy rooted in the logic of “expansionary austerity” (Alesina & Perotti, 1995; Giavazzi & Pagano, 1990) exerts an important influence over the optimism of the financial market. The core concept is that financial austerity would be able to improve agents' expectations and boost the confidence of the private sector, thus reducing interest rates and driving new consumption and investment. With that objective, a 2016 constitutional amendment established a cap on public spending and investment, freezing expenditures (zero real growth) for twenty years, regardless of rates of growth or fiscal space.

This sharply contractionist agenda took in labor (2017) and pension reforms (2019), which raised expectations around growth in publicly traded companies' profits—the idea being that the deregulation of the labor market and scantier pensions would cut payroll and social protection costs. Larger profit margins would supposedly boost private investment, theoretically expanding GDP and

spurring on the performance of the capital market.

One of the aims of this section is to investigate the various determinants of the process of financialization of Brazil between 2010 and 2019. It is assumed that the fall in return on financial investments in public securities, given the drop in the Selic interest rate provoked by the economic crisis and aggravated by the pandemic, causes a rupture in the former financialization regime—which had been driven by the variable in question. The result is a new stage of Brazilian financialization, now led by the extension of credit—in this case, also to companies—and by the flow of capital into the Brazilian stock market (B3).

Consequently, when looking at the three basic forms of fictitious capital (Durand, 2017) that create financial profit, public debt seems to have taken a back seat in favor of private debt (taken out by companies and households) and capitalization on the stock market starting in 2017.

Data were drawn from Economática, a platform which is constantly updated with the most recent figures from the financial market and allows users to systematize a large volume of information about companies listed on B3 S.A. (the former Bovespa). The present study made use of the platform's division by sectors, examining 81 different segments from 2010 to 2019 on an unbalanced data panel. Only non-financial companies were included. The choice for this sample period is due to the fact that Economática only contains balance sheet data from 2010 onwards. As for the aggregation of sectors, the Economática platform has several ways to group the data: NAICS Sector, Economática Sector, Bovespa Economic Sector, Bovespa Sub-Sector, Bovespa Segment and CVM Situation. We used the Bovespa Segment because it is, of all of these, the most disaggregated and corresponds to a classification that we felt was most appropriate to examine Brazil's productive structure.

With this objective, a dynamic panel data model was considered using the generalized method of moments (GMM) proposed by Arellano and Bond (1991), which is appropriate in cases involving 1) a linear functional relationship; 2) a lagged dependent variable, which means a dependent variable influenced by prior values; 3) potentially endogenous explanatory variables; 4) individual fixed effects; 5) heteroscedasticity and autocorrelation within groups of individuals; and 6) the possibility of “internal” instruments based on their own lagged variables.

The estimated model attempts to capture the various determinants of financialization in Brazil, as summarized in the following equation:

$$Finn = \alpha_i + \beta_{1it} re_finn + \beta_{2it} div + \beta_{3it} GDP + \beta_{4it} drive + u_i$$

where *Finn* is the variable that stands for the process of financialization in Brazil, given by the relationship between financial assets and companies' net equity; *re_fin* is companies' financial revenue; *div* is the companies' short-term debt; *GDP* is the GDP growth rate; and *drive* represents the driving force behind financialization in Brazil. Here, 3 models will be estimated, each with a different

drive: *selic* in model 1⁹, *credit* in model 2, and *Ibovespa* in model 3¹⁰. α is the constant and β are parameters that capture the relationship between the explanatory variables and the proxy for financialization; i stands for each sector on Economática (1 to 80)¹¹; t is the annual period of time, and u is random error¹².

This proxy for financialization is inspired by Durand (2017), for whom financialisation can be understood as a reorientation of capital accumulation away from productive activities and toward financial activities. He uses three kinds of indicators to check if an economy is being financialized: 1) the weight of the financial sector; 2) the importance of this sector's profits relative to overall profits; and 3) the dynamic of financial profits in non-financial firms.

In the scope of this paper, we sought to identify available variables that would provide, as stressed above, a proxy for the frame proposed by Durand, though aware that they do not fully encompass it. Thus, we set up the following proxy: the first is calculated as the gross value added of financial insurance and real estate activities (percent of GDP); the second derives from the gross value added by financial and insurance activities (percent of GDP); and the last reflects financial and insurance activities' gross operating surplus (as a percent of total gross operating surplus). All these variables are in percentage terms so as to reveal whether the financial sector is growing in relation to the economy as a whole or in relation to a company's other activities.

The choice of three different models over a single one with the three different drivers of financialization is justified by the attempt to obtain a model that does not fall into overparameterization, given the sample size used for the estimates.

Table 1 shows that the explanatory variables were statistically significant in explaining financialization, with the exception of the variable for financial revenue. An increase in economic growth is seen to reduce financialization, which may be explained by the fact that increased activity in the real economy would reflect an increase in productive investments by companies, instead of financial investments. The short-term debt variable, meanwhile, appears tied to a rise in financialization; in a scenario of falling interest rates, companies turn to debt to buy back their shares (and thus secure future appreciation) and speculate on other companies' shares.

As for the multiple variables chosen to act as the drivers of financialization,

⁹Again, in the Brazilian economy, the Selic rate is the basic interest rate of the economy. It is the main instrument of monetary policy used by the Central Bank to control inflation. It influences all interest rates in the country, such as interest rates on loans and long run interest rate.

¹⁰A full description and the sources for each variable in the model may be found in the **Appendix, Table A1**.

¹¹Note that Economática has 81 segments; we opted to exclude banks from the model here. Nevertheless, models were estimated for the database with and without the presence of banks in the sample, and the results did not change significantly: the main result was to reinforce the negative effect of GDP on financialization. Note that the econometric model used here is efficient even in light of the endogeneity bias present in the relationship between GDP and financialization.

¹²We tried to estimate a model that with a regression specification in which the three "drivers" of financialization are included together, rather than separately. However, the three different drivers of financialization were not significant together, making it difficult to interpret the results.

Table 1. The determinants of financialization.

VARIABLES	Model (1)	Model (2)	Model (3)
	L.finn	L.finn	L.finn
l.logfinn	0.352*** (0.082)	0.263*** (0.084)	0.293*** (0.086)
logre_finn	0.007 (0.101)	0.010 (0.098)	0.010 (0.098)
logdiv	0.132* (0.069)	0.144* (0.077)	0.125** (0.064)
l.gGDP	-0.033** (0.014)	-0.031** (0.014)	-0.029*** (0.011)
l.logselic	-0.101 (0.178)		
l.logibovespa		0.674*** (0.211)	
l.logcred			1.070*** (0.305)
Constant	-4.182*** (1.009)	-4.526*** (1.079)	-4.348*** (0.943)
Observations	428	373	428
Number of sectors	65	59	65
Sargan test	35.61	35.42	32.57
Prob.	0.12	0.12	0.21
Instruments dif. equation	d2.logre_fin; l.dlogdiv ld.ggdp; l.dlogselic	d2.logdiv ld.gdp ld2.logibovespa	d.logdiv ld.ggdp d2.logcredit
Instrument for level	constant	constant	constant

Note 1: Standard errors in parentheses; *** $p < 0.01$, ** $p < 0.05$, * $p < 0.1$. Note 2: description of the variables in the table: l.logfinn is the log lag of the variable finn; logre_finn is the logarithm of the variable re_finn; logdiv is the logarithm of the div variable; l.gGDP is the lagged growth rate of the GDP variable; l.logselic is the log lag of the selic variable; l.logibovespa is the log lag of the variable ibovesta; l.logcred is the log lag of the credit variable.

the model's results confirm our hypothesis that in recent years, Selic-driven financialization has been substituted by other forces, such as an expansion of corporate credit and—a relevant new factor—investments in shares. The former can be explained by drops in loans costs (falling Selic rate). This double replacement may be observed by the non-significant coefficient of the “Selic rate” variable, and by the positive and significant coefficients of the “corporate credit” and “Ibovespa” variables. It is worth emphasizing that the coefficient for “corporate credit” is the highest, indicating that the expansion of credit and the con-

sequent increase in profits from interest income played a dominant role in the financialization process in the period under review.

It is also noteworthy that all models were robust and that Sargan's test, which is used to identify whether the constraints of a model are valid, confirmed the validity of the instruments used in the models.

The model confirms our hypothesis that beginning in 2017, corporate financialization entered a new phase in Brazil. The nation's path out of the wrenching crisis in which it had found itself since 2015 did not involve an attempt to restore growth through productive investment and innovation, but rather deepened and broadened the scope of financialization. As Erturk (2020) has described, in Brazil as well, non-financial firms began turning their backs on product market performances, such as sales growth, and shifting their competitiveness "from production cycles to the external stock market valuation process" (p. 44)—none of which promoted growth, rates of which remain anemic¹³.

Similarly, Brazil became host to what that same author—Erturk (2020)—refers to as the "cultural economy of corporate financialization", popularizing the logic of shareholder value primacy. It should be said that individual investment in B3, as stressed above, has counterbalanced the decline in institutional investment and foreign capital outflow (*Valor Econômico*, 06/09/2020). Local investors have been the main drivers of the Brazilian stock market since 2017. As in other countries, Brazil has seen low-income small shareholders flock to the stock market in hopes of short-term equity gains. The logic of shareholder value has spread with alacrity. According to B3, by the end of 2020, these newcomers' average initial investment was BRL 660 (around US\$124).

5. Concluding Remarks

Our findings point to the prominence of corporate credit expansion and share ownership as novel drivers of financialization in Brazil in the period under scrutiny (2017-2021). A recent study by Mader (2022) comes to very similar conclusions regarding credit expansion. Combining the fictitious capital frame (Durand, 2017) we also referred to, with an enterprise level of analysis, the author asserts that security income has been replaced in the 2020s by spread income, the latter derived from the expansion of credit lines. Mader demonstrates the strong correlation between the declining nominal Selic rate and the increase of profits from interest income in virtue of large spreads applied to bank loans directed at the corporate sector¹⁴.

What lies ahead for Brazil, now devastated by an unprecedented health crisis, with one of the worst performances in the world in managing the coronavirus pandemic, second only to the United States? By early July 2021, the official number of deaths caused by COVID-19 stood above 530,000, with nearly 20 mil-

¹³It is worth noting the GDP growth rates recorded over the last four years: 1.32% in 2017; 1.78% in 2018; 1.41% in 2019 and -4.06% in 2020 (IBGE, National Accounts, Historical Series).

¹⁴Mader does not assess in his study how declining Selic rates impact the performance of the capital market, a dimension we have integrated into our analysis.

lion confirmed cases. While stunningly high, these figures are notoriously underestimated, given the near absence of testing. The true situation is thus even more worrisome, raising doubts as to the speed and quality of the post-pandemic economic recovery.

The capital market, meanwhile, seems to inhabit a world set apart from the pandemic and the recession (−4.9% GDP growth rate in 2020). The collapse of B3 in mid-March 2020 at the same time as the first COVID-19 fatality in the country, seemed poised to definitively interrupt a virtuous cycle begun 3 years earlier in which the stock market had become the fresh driver of financialization in a stagnant economy, against a backdrop of rising inequality and falling productive investment. But a V-shaped recovery was soon underway: in January of 2020, just before the coronavirus outbreak, Ibovespa hit a historic high (119,527 points). It then dropped sharply and spent the rest of 2020 oscillating wildly. However, since mid-May 2021, Ibovespa has outpaced its strongest 2020 performance and has since broken new records, crossing the 130,000-point mark.

Another sign of the recent exceptional dynamism of the capital market is the number of IPOs that took place in 2020 alone: 28 companies went public, the highest such number since 2007.

It seems plain that the Brazilian stock market has taken on an unprecedented dimension. In 1995, the volume traded on the stock exchange corresponded to 6.7% of GDP. In 2019, it reached 52%, according to *Economática*; and that figure rose to 93.1% of GDP in 2020, a year of falling output.

It is still too soon to say, however, whether this trend will hold.

For its part, economic policy has been inept, sluggish, and insufficient in tackling financial speculation and the current calamity. The handcuffs of the spending cap remain, evidence that policy is still an ideological hostage of fiscal austerity. On the monetary front, interest rates are on the rise due to a slight rebound in inflation. Between January and June of 2021, the Central Bank raised the Selic from 2% to 4.25%, signaling that government bonds may once again provide higher profitability. It is worth recalling that the fight against inflation is justified, under financialized capitalism, for preserving the supremacy of financial markets, whose profits depend on the valuation of financial assets. As stated by Epstein, keeping inflation low and under control, “increase the share of income going to rentiers” (Epstein, 2019: p. 385).

The upward trend of the Selic, if confirmed, could come to question this study’s central assumption that the capital market has become a new drive of financialization in Brazil. The future configuration of the dynamics of financialization will hinge on a series of factors. However, this exploratory analysis indicates that it is highly likely that the stock market along with new waves of private credit expansion will keep up being relevant triggers at that.

Acknowledgements

The authors would like to thank the anonymous reviewers for their very helpful

comments. We also thank economists Pedro Rubin, Ana Carolina Cordilha and Lucas Bressan for their valuable contribution in collecting and organizing the data analysed in this article.

Conflicts of Interest

The authors declare no conflicts of interest regarding the publication of this paper.

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Appendix

Table A1. Description of variables used in estimations

Variables	Description	Source
finn	Financial assets/Net equity: Part of the equity of the legal entity that is in the form of bonds of companies or institutions with the intention of achieving a positive return in a certain period of time. The values of the Financial Assets variable are the result of the following items in companies' balance sheets: current assets, "financial investments," added to non-current assets, "financial investments measured at fair value through other comprehensive income in the long term," and "financial investments evaluated at the long-term amortized cost." The survey comes from balance sheet data provided by the Economática platform as well as data from the financial statements delivered to the Comissão de Valores Mobiliários—CVM according to the accounting standard defined by the autarchy, linked to the Ministry of Finance. The data correspond to 81 non-financial economic segments during the period 2010-2019.	B3 S.A./Economática. Available at: https://economatica.com/index.php?plataform
re_finn	Companies' financial revenues. Examples of financial restatements are income from fixed income financial investments; interest received on equity; the bond or debenture redemption premium; revenues from securities linked to the open market, and monetary variations as a result of the exchange rate. The values used in the article were obtained from the annual data of the "Financial Income" account contained in the Income Statement for the year of the analyzed companies. The data come from Economática platform and correspond to 81 non-financial economic segments during the period 2010-2019.	B3 S.A./Economática. Available at: https://economatica.com/index.php?plataform
div	Short-term debt. It is the companies' indebtedness that will mature in up to one year. The survey comes from balance sheet data provided by the Economática platform and corresponds to 81 non-financial economic segments during the period 2010-2019.	B3 S.A./Economática. Available at: https://economatica.com/index.php?plataform
gdp	GDP-Gross Domestic Product-Market prices-var. real trim.—(%). Data from the System of National Accounts.	Instituto Brasileiro de Geografia e Estatística, Sistema de Contas Nacionais Trimestrais (IBGE/SCN Trimestral)-SCN104_PIBPMG104—Available at: https://ibge.gov.br/estatisticas/economicas/contas-nacionais
selic	Basic interest rate of the economy—Special System for Settlement and Custody-Selic—set by Central Bank Monetary Policy Committee-Copom—(% a.a.)	Banco Central do Brasil, Boletim, Seção mercado financeiro e de capitais (Bacen/Boletim/M. Finan.)—BM366_TJOVER366. Available at: https://www.bcb.gov.br/controleinflacao/historicotaxasjuros
credit	Seasonally adjusted credit—corporate	Banco Central do Brasil—Sistema Gerenciador de Séries Temporais-v2.1—Available at: https://www3.bcb.gov.br/sgspub/localizarseries/localizarSeries.do?method=prepararTelaLocalizarSeries
ibovespa	Bovespa Index—close. Is the main performance indicator of shares traded on B3 and brings together the most important companies in the Brazilian capital market.	B3 S.A.—GM366_IBVSP366. Available in: https://www.b3.com.br/pt_br/market-data-e-indices/indices/indices-amplos/ibovespa.htm