Financialisation, growth and investment in Brazil[+]

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1. Introduction

There is an extensive literature relating the process of financialisation with investment decisions. In general, there are two main channels in which financialisation affect negatively productive investment: (i) firms applying available domestic funds in financial assets when they offer larger short-term returns instead of productive investments; (ii) pressure exerted by the shareholders on the companies' managers in obtaining greater short-term returns and dividends payments. However, there are few studies related to financialisation and investment in Brazil, although some studies show that the Brazilian economy has characteristics of a financialised economy (Bruno et al., 2015).

During the last years, the Brazilian economy has been characterized by having a low rate of accumulation - about 15% to 21.5% of GDP in the period 1995-2017. Its behaviour followed the economic cycle, either by increasing the growth of some components of demand (such as household consumption), or contributing to the economic slowdown as of 2014. This abrupt reversal of the investment can be related somehow to the process of financialisation of the Brazilian economy, since firms may be adopting strategies based on the shareholder value orientation, in the meaning that they are accumulating fewer profits to reinvest in their real productive activities and obtaining more profitability derived from financial income. According to Miranda (2013), there are strong evidences that the Brazilian companies can be considered financialised, due to a type of governance closer to the Anglo-Saxon model that seeks short-term results and convergence to the maximization of shareholder value.

This chapter aims to analyse the relationship between financialisation and investment in Brazil since the implementation of the Real Plan, i.e. in 1995-2017 period,

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a period marked by strong macroeconomic instability. In particular the main questions that this work addresses are: (i) What are the main determinants of investment in Brazil? (ii) Has financialisation led to a greater distribution of profits and dividends to the detriment of investment in Brazil? (iii) Is there a crowding out process in which firms' financial revenues compete with returns related to productive investment?

The chapter is divided into five sections, besides this introduction. Section 2 presents a brief review of the literature on the relationship between financialisation and investment. Section 3 analyses the macroeconomic context and characteristics of financialisation in Brazil in the period analysed here. Section 4, on the other hand, focuses on the relationship between financialisation and investment in Brazil in the 1995-2016 period, with the use of some accounting indicators built based on Economatica database[1]. Finally, section 5 concludes the chapter.

2. Relationship between financialisation and investment

The concept of financialisation[2] is very broad. Indeed, there is no single formal definition, since it comprises several activities related to the financial market. The literature has investigated several aspects of the growth of financial activities and their implications on the economic system as a whole, but without providing a general definition. The more general concept of financialisation can be found in Epstein (2005, p.3), which defines the phenomenon as "increasing role of financial motives, financial markets, financial actors and financial institutions in the operation of the domestic and international economies", while Stockhanmer (2004) defines as the participation of "rentiers" in the income of non-financial companies, income obtained mainly through the payment of interest and dividends. Van Treek (2009) recognizes as financialisation the growth of shareholder value, focusing on the microeconomic aspects and their implications in the process of capital accumulation and economic growth. Liang (2010) uses the concept of global financialisation as the growth of power or influence of financial interests and institutions throughout the world. In Krippner (2005), financialisation is defined as a new pattern of accumulation in which financial channels are increasingly influenced by the determination of the profits of non-financial corporations to the detriment of traditional channels such as trade and commodity production. More broadly,

[1] We have used accounting data from all listed companies during the period of the survey.
[2] For a comprehensive review, see van der Zuan (2014).

Braga's pioneering work (1985) defines financialisation as a systemic norm of wealth, since it produces a structural dynamic articulated according to the principles of the 'financial logic' of capital reproduction.

Financial-led capitalism – a new regime of accumulation according to the economists of the French Regulationist School - has spread throughout the world as a result of the adoption of neoliberal policies, which includes a set of policies such as financial liberalization, flexibility of the labour market, social and the shrinkage of developmental state, etc. (Boyer, 2000). This "new regime of accumulation" developed in the context of the process of increasing financial globalization in the 1970s and 1980s that led "finance-led capitalism" to disseminate its logic of deregulation with a view to maximizing shareholder value and obtaining short-term financial gains. Its result is often the search for short-term financial gains by agents (including through shareholder value), early expansion of the service sector, deindustrialization and job insecurity.

The shareholder value approach provides a connection between financialisation and fixed capital investment. According to Aglietta (2000), shareholder value has become a norm of the capitalism changes, spreading new policies and practices within firms, prioritizing the short-term maximization of shareholders and overlapping other elements such as productive investment.

There is a wide literature in the analysis of financialisation that seeks to establish a relationship with fixed capital investment. Particularly in the USA, since the 1980s, there has been a substantial expansion in financial investments of non-financial firms replacing (or "crowd out") fixed investments, as well as an increase in the payments of these firms to financial markets. This trend would be related to the growing shareholder value orientation as the dominant corporate governance ideology whose main goal is to "downsize and distribute" (Lazonick and O'Sullivan, 2000), in which such companies focus increasingly short-term financial returns at the expense of fixed capital growth (Stockhammer, 2004). Thus, by favouring the dividends payout, firms reduce retained earnings, which contribute to the decrease/stagnation of investments. In this perspective, nonfinancial companies would be seen more as a grouping of assets rather than capital accumulation ventures. Summing up, this financialised firm is characterised by a shift in managerial priorities towards an emphasis on short-term shareholders' interests.

According to Davis (2017a), the empirical literature on financialisation is quite comprehensive, addressing a very broad set of changes in the behaviour of nonfinancial firms, ranging from the growth of dividend payments, the difference between fixed assets income and financial income, or even the increase in the financial derivatives earnings. A broad and recent review on the relationship between financialisation and investment highlights that the result of a large body of empirical work suggests a robust and negative relationship between financialisation and fixed capital investment, although more recent work finds a more varied relationship between some features of financialisation and the investment rates of US firms, including a positive relationship between financial assets and investment (Davis, 2017b), or even an unstated relationship between decline in US accumulation rates and financialisation (Kliman and Williams, 2014).

Orhangazi (2007) highlights two main channels in which financialisation negatively affects productive investment. The first is related to the allocation of internal funds available for investments in financial assets when they offer larger short-term returns (besides being reversible unlike fixed assets). The second channel is related to the pressure exerted by the shareholders on the managers of the firms in obtaining greater short-term returns and greater dividends payments, making them prefer financial investment. Another incentive factor for the investment in short-term financial assets is the management policy of modern firms, where managers have fixed salaries and extra remuneration linked to the performance of the firm, as well as shareholders pursuing larger short-term yields, by the maintenance of stock prices at high levels and greater dividends payments. At the same time, the emergence of institutional investors, operating on a large scale and demanding high returns, has also pushed managers to increase dividend payments. Thus, managers of nonfinancial firms suffer from internal and external pressures for higher short-term results and higher dividend payments. This movement creates two different constraints on real productive investment. First, assuming that domestic resource funds are cheaper or safer than external financing, financial payments should reduce the available funds to finance investment through the fall of internal resources. Second, the time horizon of management of non-financial firms has increasingly shortened, making it difficult to finance long-term investment projects, including research and development spending.

In Brazil there are few studies on financialisation and productive investment. A pioneering work was done by Miranda (2013), which analyses the impacts of the financialisation of the Brazilian economy on non-financial public companies, from 1995 to 2012, as well as its impact on the fragility of these companies and the economy as a whole. The study showed an increase in wealth distribution to shareholders over the analysed period, as well as the adoption of managerial practices to expand this wealth. In

Brazil, the increase in shareholder wealth distribution had negative effects on the gross fixed capital formation of the economy. In general, companies increased the search for short-term results over the long-term, converging somehow with the Anglo-Saxon model of corporate governance, which shows that there is a dominance of rentier logic in the accumulation process of these companies, that can be considered financialised. It was also noted that the search for short-term results and convergence to the shareholder value maximization increased the fragility of these companies and the economy, since the former increased the indebtedness in its capital structure without, necessarily, allocate these resources on productive activities. In this context, firms increased the dividend payout and share repurchase in order to raise the company's market value as well as the shareholder value. This policy was increasingly financed by financial activities and indebtedness, which increased the fragility of these companies and the instability of the economy.

3. Macroeconomic environment and characteristics of financialisation in Brazil

3.1. An overall analysis of the macroeconomic context[3]

Brazil, such as other Latin American countries, implemented liberal reforms and economic openness during the 1990s based in the Washington Consensus[4]. The economic openness, more specifically in terms of reduction in the tax on imports, and the privatization of state-owned firms (in particular steel sector) began during Collor de Melo's government (1991-1992). In Itamar Franco's government (1992-1994) price stabilization was achieved in 1994 with the implementation of the Real Plan, with a stabilization program that made use of an exchange rate anchor and de-indexation of the economy[5].

[3] The section retakes former analysis done in Paula (2011, ch.3), Paula et al (2016), Ferrari-Filho and Paula (2015), Paula and Pires (2017) and Prates et al (2018).

[4] The recommendations of Washington Consensus aimed at stimulating economic growth towards a set of policies and liberalizing reforms, notably macroeconomic discipline, trade openness, and market-friendly microeconomic policies. The proposal for liberalization of capital account was not included in the original WC, but it was added to the proposal by the multilateral institutions, such as the World Bank (Williamson, 2000).

[5] One of the causes of inflation in Brazil was the inertial inflation phenomenon. Prices were adjusted on a daily basis and the contracts adjusted by former inflation (with the mechanism known as "correção monetária"). One of the step of the Real Plan was the introduction of the Real Unit of Value (Unidade Real de Valor in Portuguese) – URV, in March 1994, as the new standard of monetary value, whilst the cruzeiro real (CZR) was to continue being used as legal tender. The URV, an average index of three representative inflation indexes in Brazil, was designed to be a unit of account linked to the U.S. dollar, aimed at

Brazil in the 1990s was also marked by the process of capital account liberalization. In the first part of the decade, Brazilian government permitted the acquisition of equities of domestic firms by foreign institutional investors, through the special funds for this purpose, and did an important change in a special non-resident bank account (CC5), that operated by foreign financial institutions in practice permitted that both residents and non-residents could send freely abroad their domestic monetary resources. The reintegration of Brazil and other Latin American countries to the international financial market was stimulated by the Brady Plan that renegotiated the external debt, towards to the securitization of the debt that resulted in both reduction in the interests paid and the lengthening of the debt. In the 2000s the process of financial liberalization continued through a legislation that aimed at simplifying the norms related to foreign exchange operations (Paula, 2011, ch.4).

Summing up, the 1990s years were marked by the economic openness (trade and financial), privatization of state-owned firms, and price stabilization. However, they were also characterized by the contagious of external crises – Mexican, Asian, and Russian ones – under a context of high external vulnerability. There were important structural changes in the Brazilian economy – economic openness, price stabilization, renegotiation of external debt, reinsertion of the economy in the international financial market, etc. – but the economic performance disappointed, due to the contagious of crises and the own Brazilian crisis in 1999 and 2002, so that the average GDP growth of the 1990s (2.5%) was closer to the 1980s performance (2.3%) than to the 1950-1970s performance (7.1% p.a.)[6].

The Real Plan (1994-1999) – *Plano Real* in Portuguese - was successful in bringing inflation down fast, due to the combination of desindexation, exchange rate appreciation, and a huge reduction in import taxes In August 1994, the Brazilian Government reduced tariffs on the imports of more than 4,000 products, to a maximum of 20.0%. Although the provisional measure[7] that created the new currency, the 'real', stated the real was created with 1:1 parity to the U.S. dollar (but it was not clear if the

stimulating the economic system to find a sustainable price standard, and also at recovering the notion of a stable unit of account in the economy. The last step of the Real Plan, taken in July 1994, converted the URV into legal tender, creating a new currency – the "real". For an analysis of the Real Plan, see Ferrari-Filho and Paula (2003).

[6] Data in this section were collected from IPEADATA and Central Bank of Brazil website.

[7] A provisional measure (in Portuguese '*medida provisória'*) is a legal act in Brazil through which the President of Brazil can enact laws without approval by the National Congress. There are two requirements for a provisional measure to be used: urgency and relevance of the matter to be regulated.

parity was fixed), in practice Brazilian government left the exchange rate to float until September 1994 what combined with a very tight monetary policy resulted an quick increase of capital inflows and consequently in an sharp exchange rate appreciation. In September 1994 Brazilian government adopted a non-official band that pegged exchange rate between R$ 0.83 and R$ 0.86. Real exchange rate appreciated by 30% from July to December 1994. In order to reduce upward pressure on the exchange rate due to capital inflows, to minimize the cost of sterilization of such capitals and at the same time to give some freedom degree for monetary policy under the operation of a semi-fixed exchange rate, Ministry of Finance implemented a financial transaction tax (IOF) from 5% to 9% do Foreign Funds on Securities in October 1994 and increased the minimum maturity requirements for capital inflows.

The Real Plan was in bringing inflation down fast, due to the combination of exchange rate appreciation, high interest rates and a huge reduction in import taxes, while the economy performed well (GDP growth of 5.3% in 1994) as a result of increasing in the domestic consumption. Very tight monetary policy – including very high real interest rates and the increase of reserves requirements on banking deposits - was the result of the government's fear that a 'consumer bubble' as had occurred with the former stabilization plan (the 1986 Cruzado Plan) might develop again, and also the need to attract capital inflows in order to generate capital account surpluses that could compensate the current account deficits.

The combination between expansion of demand (in spite of the high interest rate), the tight monetary policy, and the overvalued exchange rate created immediate difficulties for Brazil's external sector. From 1995 to 1998, the trade balance accumulated a deficit of around US$ 22.3 billion that combined with the increase in the service and income investment deficit (from US 14.7 billion in 1994 to more than US$ 20 billion in 1996) caused a sharp increase in the current account deficit over GDP ratio from 0.2% 1994 to 2.4% in 1995, reaching 4.0% in 1998. Under this environment high domestic interest rates vis-à-vis external interest rates were very functional in order to attract capital flows, mainly short-term ones. The Brazilian economy's high degree of external financial fragility left it susceptible to short-term changes in the international situation. This untenable trend in its foreign accounts kept Brazil vulnerable to speculative attacks on the domestic currency (Paula and Alves, Jr, 2000).

In 1999, after the crisis of the semi-fixed exchange rate regime, that was the main pillar of the Real Plan, Brazilian government did some important changes in the structure of the economic policy, by adopting a floating exchange rate regime and a inflation targeting system, that became the new anchor of the prices. The new regime of macroeconomic policy, under the conditions of the enhancement of the financial liberalization, can be characterized as inspired in what in currently called as ‘The New Consensus on Macroeconomics’, that supports that the main focus of the economic policy is price stabilization.

In the beginning of the 2000s, the Brazilian economy suffered initially the impact of a number of international shocks (the slow-down in the U.S. economy, and the Turkish and Argentine crises) and later a confidence crisis in 2002 due to the probable election of a more leftist government, that eventually caused a sudden stop in the foreign capitals, and consequently a steady and abrupt exchange rate devaluation.

The first term of Lula da Silva’s government (2003-2006), following a confidence crisis in 2002 with a massive speculative attack against the Brazilian currency, was characterized by the continuity of the tripod of macroeconomic policies adopted after the 1999 currency crisis, namely, inflation targeting, primary surplus targets and a (dirty) floating exchange rate regime. Under this framework, both fiscal and monetary policies were kept mostly orthodox, featured by a wide primary surplus and the maintenance of a high real interest rate (albeit with a decreasing path), while the currency appreciated gradually.

Since the beginning of 2003, under the government of the President Lula da Silva, the economy was favoured the benign international environment (commodities boom and high liquidity in the international financial market) that allowed the Brazilian economy grow at 4.7% on average in 2004-2008 without facing an external constraint to growth. At the end of 2008 Brazilian economy is hit by the contagious of international financial crisis, that caused immediate and deep impact on the economy. However, the impact was relatively short with the economy showing signals of recovering by middle of 2009, due to the combination of expansionary fiscal and monetary policies and measures oriented towards to mitigate the liquidity crisis in the banking sector.

Amid a positive external environment in terms of trade and capital flows since 2004, the high interest rate stimulated speculative operations through portfolio investment and foreign exchange (FX) derivatives. These operations along with the current account surplus resulted in a significant currency appreciation. The interventions of the monetary authority in the FX market in 2005 did not curb this appreciation, but came out with the build-up of FX reserves. The so called precautionary demand for reserves contributed to the decrease of net public external debt and the improvement in the country's external liquidity. Moreover, in this period bank credit to the private sector recorded a significant growth, stimulated, among other factors, by the implementation of payroll-deductible credit operations, which reduced bank risk and, consequently, the cost of loans to households.

The contagion of the 2008 financial crisis affected directly the economic, either in terms of trade and capital flows. Indeed, Lula da Silva's response to the GFC, although late, represented an important shift from previous crisis episodes, where central government had pursued pro-cyclical policies, usually within the framework of the IMF stabilization programs, hoping to steady the humors of financial investors, and responded to the contagion effect of the systemic crisis with a broad variety of countercyclical economic measures (Barbosa, 2010; Paula et al., 2015): (i) to avoid the spread of the credit crunch, the Central Bank of Brazil (in Portuguese "Banco Central do Brasil" - BCB) adopted a series of liquidity-enhancing measures; (ii) the BCB intervened in the FX markets; (iii) the state-owned banks were encouraged to expand their credit operations to compensate for the deceleration in the credit supply by private banks; and (iv) the Ministry of Finance undertook fiscal measures to stimulate aggregate demand. Such countercyclical reaction was possible, to a large extent, due to the policy space created by the shift towards a net creditor position in foreign currency of the Brazilian government. Consequently, the currency devaluation favoured public finance.

As a result of these countercyclical economic policies, after experiencing a recession (GDP grew by - 0.2%) in 2009, the Brazilian economy increased 7.6% in 2010. Brazil's economic recovery brought with it restored flows of international capital and, as a consequence, problems associated with periods of prosperity, including the tendency for the *real* to appreciate due to the new surge of capital inflows.

In the context of quick recovery of the economy and a new "twin boom" (commodities and capital inflows), Brazil faced again huge short-term inflows boosted by a high differential between the internal and external interest rates. As the BCB resumed the exchange rate policy adopted before the crisis, Brazil's currency recorded a huge appreciation in 2009, the Ministry of Finance started imposing regulations on capital flows, starting with a tiny financial transaction tax on foreign portfolio investments in October 2009. Soon, these regulations were strengthened with the first measure targeting FX derivatives operations and administrative controls. Moreover, the Central Bank of

Brazil adopted macro prudential regulations to curb the domestic credit boom (Prates and Paula, 2017).

During the period 2007-2010, the main macroeconomic results were the following: the GDP grew by an average of around 4.5% per year, pushed up by the increase of investment, private consumption and exports; (ii) the average annual inflation was 5.1%; and (iii) the unemployment dropped from 9.3%, in 2007, to 6.7%, in 2010. However, the external sector deteriorated significantly: from 2007 to 2010, the trade surplus dropped almost 27% (the accumulated trade surplus was USD 109.0 billion) and the balance of payments' current account deficit has been more than 2.0% of GDP since 2010.

In late 2010 and in 2011, the first year of Dilma Rouseff's term, the central government faced the dilemma of going for moderate economic growth to address inflationary pressures. In this context, immediately after the Dilma Rouseff's presidential inauguration, the BCB decided to increase the interest rate to avoid inflationary pressures caused by robust economic growth in 2010, and, at the same time, the fiscal policy became more conservative. In this way, at the end of the year the interest rate and the primary fiscal surplus increased to 11.75% and 3.1% of GDP, respectively. Despite these changes in the monetary and fiscal policies, in 2011 the Brazilian economy grew by 3.9%. In mid-2011, during Roussef's first term, a gradual change was introduced for what the government itself called the 'New Macroeconomic Matrix'. This encompasses a set of countercyclical measures to boost growth in the context of the worsening of the euro crisis as well as to increase the competitiveness of the Brazilian industry damaged by years of currency appreciation and the greater competition in the external markets after the GFC.

The regulatory toolkit on spot and derivatives' FX markets was further broadened as the previous measures had only mitigated the currency appreciation trend underlying the deterioration in competitiveness of Brazil's manufacturing sector in both external and domestic markets. It was completed by a progressive reduction of the policy rate. Yet, as precondition for these changes in the exchange rate and monetary policy without jeopardizing price stability, fiscal policy was tightened in the first half of 2011. The interplay of the new FX regulations, the monetary policy loosening and the increase in the risk aversion of global investors came out with the intended depreciation of the Brazilian currency.

At that time, unlike the post-subprime crisis, the economic measures failed to sustain economic activity and, as a result, the Brazilian economy experienced a poor performance in 2012: GDP increased only 1.9%.

Besides the change in the interest and the exchange rate, the government launched a wide range of instruments that favoured the domestic manufacturing sector and seek to dampen inflationary pressures in face of the currency depreciation: a nominal freeze of relevant public tariffs, such as energy and gasoline), the use of state-owned banks to reduce bank spreads and tax exemptions. It is worth mentioning that in the first year these measures did not change the overall fiscal policy stance (Paula and Pires, 2017; Mello and Rossi, 2017).

Yet, in April 2013, due to an increasing inflation rate, the BCB restarted to rise gradual and continuously the policy rate, and removed regulations on FX operations due to signalling by the Federal Reserve that its quantitative easing policy would to be withdraw soon ('tapering'). At the same time, the Brazilian government further enlarged tax exemptions, and tried to intensify investment in infra-structure. Moreover, affected by the decline of oil prices and the first effects of 'Lava-jato' operation[8], Petrobras reduced its investments, with a strong impact on overall investment (Mello and Rossi, 2017).

Compared with the policies launched to counter the Great Financial Crisis (GFC) contagion effect, the countercyclical fiscal policies implemented in 2012-2014, with the use of tax exemptions instead of public expenditures, were very limited, with small aggregate impact on production and employment (Paula et al, 2015). The same holds for public investment, which was significantly higher over 2006-2010.

At the end of the first Dilma Rousseff government, the main macroeconomic results were the following: GDP growth rate dropped from 3.0% in 2013 to 0.5% p.a. in 2014; (ii) the average annual inflation was 6.2% p.a.; and (iii) the accumulated current account deficit was around USD 279.1 billion. At least, surprisingly, the average unemployment rate dropped to 4.8% in 2014. Since middle of 2014 there was a reversal in the trajectory of the Brazilian economy, that was affected by a set of factors that included: the deterioration in the terms of trade (mainly due to the decline in commodities prices), hydric crisis, sharp increase in the interest rate, and since 2015, fiscal adjustment

[8] 'Car Wash' ('*lava-jato'* in Portuguese) operation is an investigation being carried out by the Federal Police of Brazil and the Court since March 17, 2014 that cover allegations of corruption at the state-controlled oil company Petrobras.

and huge exchange rate devaluation. As a result the average GDP growth in 2015-2016 was 3.6% p.a. negative, while unemployment rate reduced from 12.4% in December 2013 to 8.0% in February 2016.

In 2015, after the re-election of Dilma Rousseff, the central government shifted its economic policy somehow dramatically towards a more orthodox policy stance. The main aim of the economic policy was to implement fiscal adjustment mainly by the side of public expenditures, understood as fundamental for retaking the agents' confidence as a pre-condition for economic recovery. For this purpose, the Brazilian government committed itself to a primary fiscal surplus of 1.2% of GDP, implementing a set of measures to reduce public expenditures (mainly by the budget contingency), re-adjusted monitored prices (energy and oil), while the BCB further increased its policy rate from 10.92% p.a. in October 2014 to 14.14% p.a. in August 2015. Due to strong devaluation in 2015, the BCB had to intervene in the FX market to reduce exchange rate volatility and to offer exchange rate hedging to private agents, with the use of swap operations (Paula and Pires, 2017). The efforts of fiscal adjustment failed as fiscal revenues dropped dramatically in 2015, so that the Ministry of Finance had to revise its fiscal targets. Due to the recession and increasing interest payments, the public nominal deficit increased even more in 2015. Net public debt over GDP, which had recorded its lowest level during the period under analysis in 2013 with 30.5%, again grew steeply (to 46% of GDP in 2016), while gross debt increased even more, from 51.5% to 69.6% over GDP in the same period.

At the beginning of 2016, Nelson Barbosa, the new Finance Minister, announced his strategy of fiscal consolidation, which, among other things, would be able to reverse the upward trend of public spending that contradictorily compromised the capacity of the Brazilian State to implement public policies in the long term (Paula and Pires, 2017). As for 2016, the spread of political crisis virtually paralyzed the government's actions, making impossible the adoption of any economic policy agenda until the impeachment of President Roussef in 2016.

From the beginning of President Roussef's impeachment in May 2017, Michel Temer began his tenure as president of Brazil, with Henrique Meirelles - former president of the Central Bank of Brazil 2003-2011 - as Finance Minister. In the new government there were substantial changes in the economic policy, with a reinforcement in the functioning of the economic tripod with a conservative monetary policy (considered necessary to rescue the BCB's credibility), a floating exchange rate with little BCB interference in foreign exchange market, and adoption of a ceiling for public spending through “Constitutional Amendment number 95” (that set a maximum readjustment of public spending based on the IPCA of the previous year), which created a straitjacket for implementing countercyclical fiscal policies in Brazil. In addition, a set of neoliberal reforms was adopted, aimed at reducing the role of the State in the economy, which included labour reform (increased outsourcing of labour), a reduction in the BNDES’s role in the long-term financing of the economy and social security reform which had not been approved until the end of this work.

3.2. Some characteristics of financialisation in Brazil

During the period of high inflation in Brazil (1981/1994), there was a strong financialisation process of the Brazilian economy, characterizing a monetary regime called by Bruno et al (2015) as "regime of financialisation by inflationary gains", that is derived from generalized indexation of contracts based on public indebtedness, that was functional under an environment of high inflation. In this context, the development of rentier accumulation can occur due to "indexed money" (high liquidity financial assets that function as quasi-money). Indeed, the existence of ‘indexed money’, short-term domestic-denominated financial assets, most of them indexed to overnight rate of interest, was responsible by the maintenance of the savings in the domestic financial sector, avoiding the dollarization of the economy, but at the same time put the economy in risk of hyperinflation due to the ‘risk of flight’ of financial assets (Belluzzo and Almeida 1989).

With monetary stabilization in 1994, due to the Real Plan, financialisation began to occur through interest-rate gains, replacing the previous monetary regime, that is, interest income and other financial gains from assets derived from public and private indebtedness, at the same time as there was a financialisation through expansion of the supply of consumer credit, expansion of private pension funds, insurance and new financial services. The "financialisation regime by interest rate gains” differs from “financialisation regime by dividends gains”, that has been one the main feature of the financialisation in US economy (see section 2), as the main source of agents’ financial revenues does not result from dividends but from revenues derived from investments in public and private bonds, part of them indexed to interest rates, that was maintained in very high levels.

Both processes of financialisation have been stimulated since the early 1990s by the increasing liberalization of the capital account, given the speculative nature of both resident and non-resident capital flows. Indeed, Kaltenbrunner and Painceira (2017) supports that one of features of financialisation in Brazil is what they call “subordinated financial integration”, that connect financialisation with cross-border capital flows, as such subordination shapes agents’ relations with the financial markets due the development of carry-trade operations to explore interest rates differential derived from the very high domestic interest rates in Brazil compared to developed economies (for instance, US federal funds interest rates).

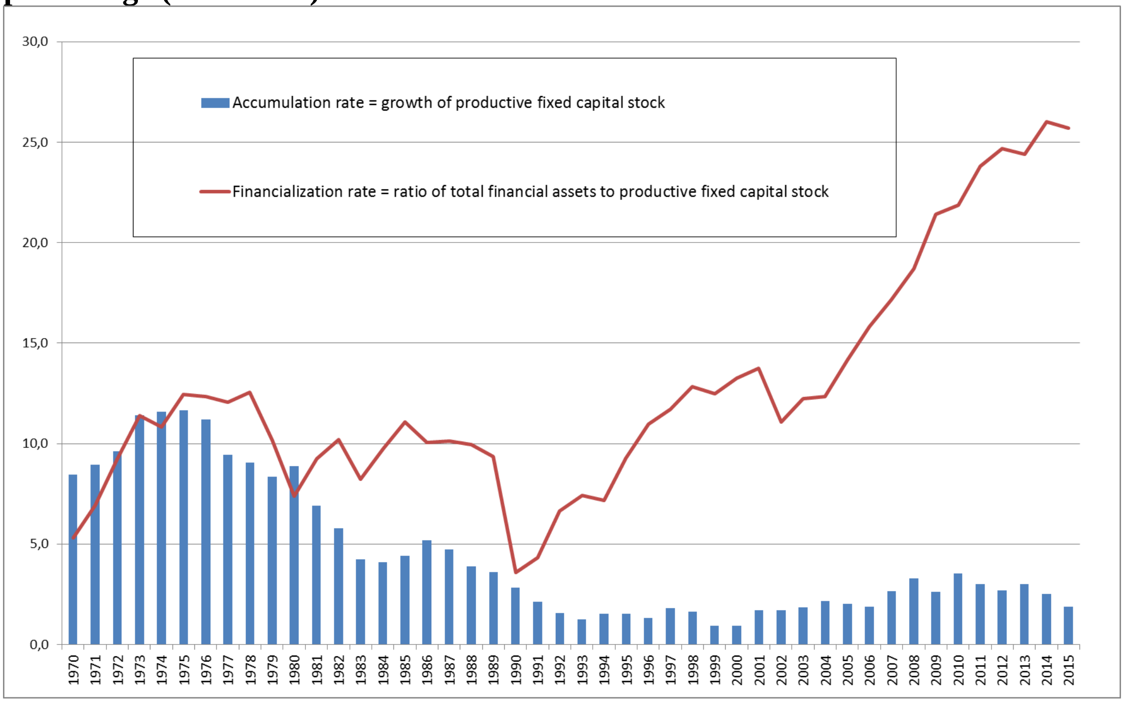
Under the "financialisation regime by interest rate gains”, the government sought, until 2015, to reconcile the interests of rentist accumulation with redistributive social policies, favouring social segments whose income derives from interest income and other financial gains (Paula and Bruno, 2017). Thus, financialisation was stimulated by two interrelated factors: very high real interest rate and the permanence of an "overnight" circuit in the Brazilian economy, inherited from the period of high inflation, but maintained high in the post-Real period, where the applications of economic agents are channelled, especially in times of high uncertainty. In fact, the real interest rate (discounted by the IPCA) was on average 5.0% p.a. in 2007/2016 (in 2002-2006 was 12.5% p.a. on average); on the other hand, short-term financial operations indexed to Selic rate[9] - including Treasury Financial Bills (“*Letras Financeiras do Tesouro*”) and repo transactions (known in Portuguese as “*compromissadas*”) - increased from 35.4% of GDP in December 2006 to 40.7% of GDP in April 2015 (Salto and Ribeiro, 2015). The increase and greater importance of financial wealth combining high liquidity with profitability, to which most of the agents' applications (households, firms, financial institutions, pension funds, etc.) concentrate part of their financial resources, is one of the most important characteristic of financialisation in Brazil.

As can be seen in Figure 1, there has been a strong increase in the rate of financialisation - here measured by the ratio total financial assets over productive fixed capital stock - since 1991, reaching peak level 2014 (more than 25%), at the same time that the growth rate of the stock of fixed capital reduced and remained roughly at low levels, especially when compared to the decade of 1970, a decade marked by high

[9] The *Sistema Especial de Liquidação e Custodia* (SELIC) (Special Clearance and Escrow System) is the Central Bank of Brazil's system for performing open market operations in execution of monetary policy. The SELIC rate is the Bank's overnight rate.

economic growth. One should note that the increase in the financialisation rate since beginning of the 1990s followed the process of capital account liberalization in Brazil, according to the analysis of Kaltenbrunner and Painceira (2017). Compared to the former decades there is a sort of structural break in the series of the capital accumulation. In the period analysed in the next section (1994-2017) there was some increase in the investment rate in 2006-2013, but in much lower level than in the former decades. In the next section we analyse the relation between financialisation and investment in 1994-2017.

Figure 1: Finance-rentist accumulation versus fixed capital accumulation - percentage (1970-2015)



Source: Bruno and Caffé (2015) with data from IBGE (Brazilian Institute of Geography and Statistics) 2018

4. Financialisation and Investment in Brazil

4.1 Overview of investment in Brazil in 1994-2017

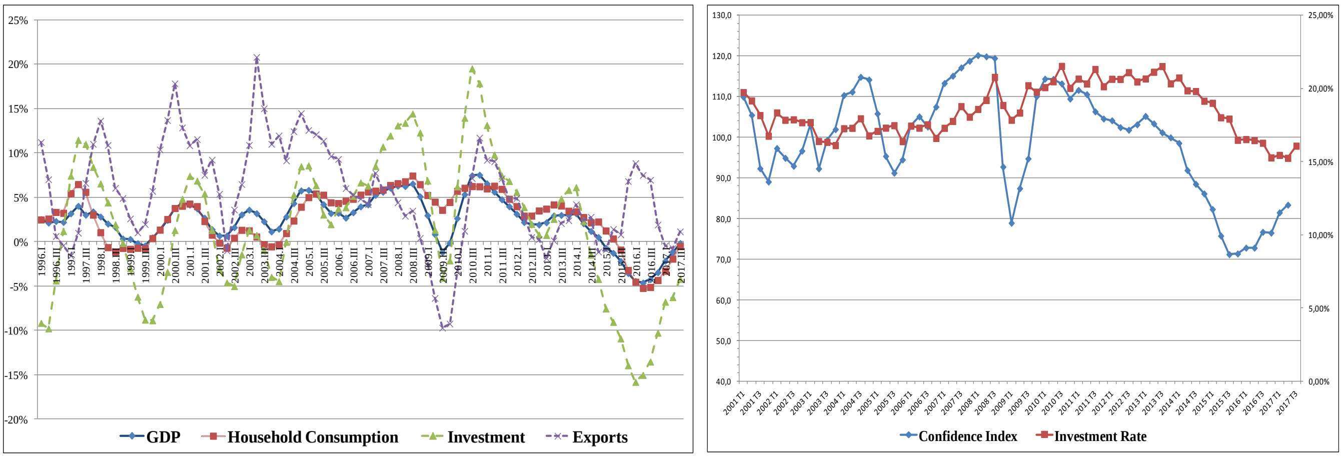
As it was seen in the previous section, the Brazilian economy since the implementation of the Real Plan in 1994 has shown a very volatile behaviour, with short economic cycles until 2002, presenting a more solid growth trajectory since 2003, followed by a slowdown. The investment rate played a central role in the economic performance in the period as a whole, especially since 2006. In fact, while in the 2004-

2013 economic boom the growth of household consumption was the determining factor to pull investment, during the cyclical reversal (since 2014) the deterioration of business expectations, possibly in conjunction with other factors (deindustrialization, currency overvaluation, increase in the economic agents’ leverage and fall in firms' profitability), contributed a great deal to the economic slowdown.

Looking at the evolution of agents' expectations over the analysed period (Figure 2), measured by the confidence investment index (extracted from FGV database), we can see that it anticipates investment in both boom and downturn periods, that it influences decisions investment and, consequently, economic growth.

The investment rate - measured by the ratio between investments over gross domestic product (GDP) – showed four trends since 1996. First, in the period from 1996 to 2000, the investment rate shows a clear tendency to a very volatile behaviour without a defined trend in 2000-2006 period. In the subsequent period, from 2006 to 2013, there was a growth tendency with the investment rate reaching its peak (21.53 %) in the third quarter of 2013, where, from this point on, it has a decreasing trend, reaching the lowest rate in the series in the second quarter of 2017 (15.25%).

Figure 2: GDP Growth Rate evolution from the demand side (left) and Investment Rate and Confidence Index of Investment (right)**



Source: IBGE (Brazilian Institute of Geography and Statistics) 2018 and FGV (Fundação Getúlio Vargas) 2018

Note: (*) Accumulated rate of the last four quarters (compared to the same period the previous year); (**) Investment Expectation Indexes - aggregation of respective indices of capital goods and construction material (industry), engineering services (services sector) and civil construction sector, by economic weights on the left axis and investment rate on the right axis.

Among the movements in the investment rate, it is worth noting the strong downturn that began at the end of 2013, after a robust growth cycle. As pointed out before, several factors may have contributed to the cyclical economic reversal and to the inversion of the investment trajectory, including the worsening of the expectations of the economic agents. In fact, as illustrated in Figure 2, there is a process of worsening expectations since 2010, with intensification from 2013, which may be related to political factors ("*lava-jato*" operation, impeachment of President Dilma Roussef, among others) and the recessive cycle.

This observed drop in investment rate may also be associated with deterioration in the safety margins of firms, in the sense that during the period of economic boom and, consequently, improvement of agents' expectations, companies raised their level of financial leverage, increasing the share of the financial commitments over their profits. According to CEMEC[10] (2016), the behaviour of the cash generation of firms (EBITDA - earnings before interest, taxes, depreciation and amortization) and financial expenses in the companies' net operating revenues shows opposite trends, with cash generation showing a drop while the financial expenses showing an upward trend.

At the same time, there was a robust growth of the credit supply, especially by the state-owned National Development Bank (BNDES[11]) – the main source of investment finance during the period, reaching the peak in 2013 and presenting a significant fall since 2014, as BNDES disbursement volume falling to the level of 2008. Therefore, it is possible to note a pro-cyclical movement of credit supply, with expansion during the periods of economic growth and contraction when the economic activity slows down, showing some evidence that the credit supply has a important influence in the behaviour of the private investment in the Brazilian economy.

The slowdown of the operational performance of Brazilian firms may be directly related to the economic recession scenario, due mainly to demand factors; however, it may also be related to the increase in financial costs, due to the increase in the rate interest rate of the economy as well as the currency devaluation in 2015, since the share of the foreign currency debts of the companies showed a growing movement in 2015-2016 (CEMEC, 2016).

The worsening of the company's performance due to the different factors already pointed out, in turn, may also have negatively affected the investments. Historically, self-

[10] Study Center of Capital Market (CEMEC) of the Brazilian Institute of Capital Market (IBMEC).

[11] The Brazilian Development Bank (BNDES), a state-owned federal bank, is the main financing agent for development in Brazil, that plays a fundamental role in stimulating the expansion of industry and infrastructure in the country.

financing, or retained earnings, has been a major source of financing of private investment in Brazil, in addition to BNDES loans. Therefore, the deterioration of business profitability may have affected the investment by two different channels: (i) through the deterioration of the expectations of entrepreneurs and (ii) through the reduction of firms' own resources to carry out the planned investments.

The fall in the profitability of firms is partly related to the fall in aggregate demand since 2014, causing companies to have smaller ability to pass the cost increases to prices and also financial losses that occurred due the worsening of the financing conditions of the Brazilian economy and the rising in interest rates. The increase in interest rates meant that financial expenses grew faster than operating costs, contributing to the decline in the net profitability of companies. In addition to the increase in indebtedness, the impact of the exchange devaluation on the external debt of the companies also affected net profit margins, albeit heterogeneously among the sectors.

As highlighted by IEDI (2016), the fall in profitability was an important component in the process of economic downturn. This process was exacerbated by the worsening in the economic environment that combined retraction of domestic demand and low level of utilization of installed capacity with dynamism still insufficient of the external market, making hard the recovery of productive investment. In addition, the study shows that companies have made less and less long-term investments, especially in fixed assets, and have sought to maintain an appreciable volume of financial investments and cash on hand.

4.2 Financialisation and investment of the Brazilian firms

As we have seen in section 2, financialisation, according to the shareholder value approach, can affect fixed capital investment through two channels. In periods of greater uncertainty, companies tend to choose to invest more in financial assets and less in fixed assets, allowing the occurrence of a trade-off between both assets, given the difference in the reversibility and maturity of the assets. The other channel is related to the change in the management of the companies to a pattern related to the orientation of the wealth maximization of the shareholder.

In the Brazilian case, under a macroeconomic environment in the period here analysed characterized by high interest rates and a very volatile exchange rate, non-financial companies had incentives to allocate their resources to financial assets, mainly in periods of high uncertainty and high interest rates.

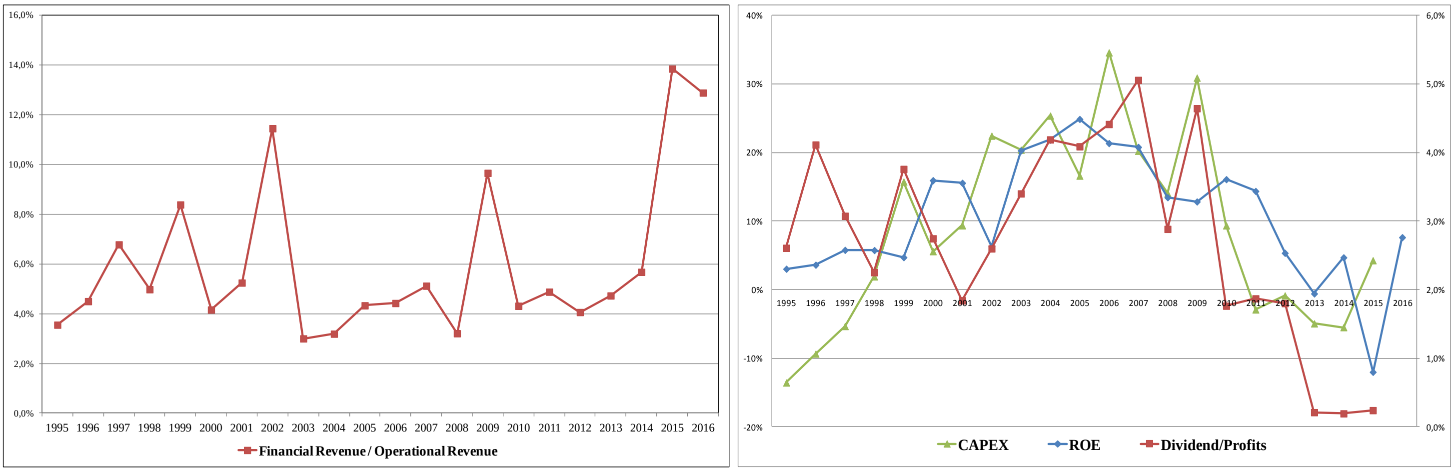
In order to analyse the evolution of the share of financial assets in the companies' investment portfolio, Figure 3 shows the evolution of the share of financial revenues in the companies' operating income. In the analysed period (1995-2016), this ratio varied between 4% (1995) and 13% (2016), showing a significant growth, but still presenting low levels. The main contributions of the financial revenues in the company's performance occurred during periods of high uncertainty and high interest rates, as in 1998, 2002 and 2015-2016.

In addition, in order to prove that a financialisation process is progress it is necessary to evaluate a broader set of indicators, such as the share of financial income and operating revenues over the total assets of non-financial companies listed on the stock exchange market in 1995-2016 period. The variables show divergent trends: the turnover of the operational assets (operating revenues/total assets) shows a downward trend since 2005, while the ratio financial revenue over total assets shows an oscillatory and upward trend in 2005-2015. This behaviour seems to suggest a financialisation trend of the Brazilian companies. However, it is worth highlighting that the share of financial revenues over total assets is still very below compared to the share of operating revenues, although one could expect that in most cases operating revenues should be the main source of earnings of a productive firm.

Figure 3 also shows the evolution of the growth rate of investment expenditures (CAPEX), return on equities (ROE) and the ratio "distributed dividends over gross profit". The data show some similarity of movement between the three variables, which differs with the thesis of financialisation, that is, a greater distribution of dividends may have negative impact on the investment. Still, the investment expenditures seem to respond to the profitability variation, while dividends payout follows this latter variable.

In this way, according to the accounting indicators used here, we cannot conclude categorically that a financialisation process is taking place in the Brazilian firms through the shareholder value channel as dividends payments are not been distributed at the expenses of the investments. Furthermore, there is some trend showing a greater importance of financial revenues (with exception of 2003 and 2004), but still having a small share in the firms' return, with greater importance in periods of interest rates peaks and exchange rate volatility, that corresponds periods of greater macroeconomic instability. In other words, firms seem to extract some advantages of periods of instability by the channel of interest gains.

Figure 3: Financial revenues and operating revenues over total assets (right) and growth rate of expenditures with capital goods (CAPEX), distributed dividends over gross profit and return on equities (ROE) (left)



Source: Authors' elaboration with data from Economática (2018)

5. Conclusion

Some authors characterize Brazil' monetary regime as a regime of "financialisation by interest rate gains", due to the existence of an overnight circuit in Brazil combined with high real interest rates. In this chapter we analysed the relationship between financialisation and investment in Brazil after 1994. According to the literature on financialisation there are two main channels in which financialisation can negatively affect productive investment: by directing available domestic funds towards investments in financial assets when they offer larger short-term returns; and by the pressure exerted by the shareholders on the companies managers in obtaining greater short-term returns and greater dividends payments.

We first showed that since the 1990s the reduction in the accumulation rate was followed by a gradual and sharp increase in the financialisation rate, that is there is some evidence that financialisation is underway in Brazil after the process of capital account liberalization. However when we look some accounting indicators of the big set of Brazilian firms although financial revenues have some importance in the firms' return, there is no clear evidence that dividends payments are been done at the expenses of the productive investments, at the least in the period analysed in this work.

So, we can conclude that financialisation of the firms is still an ongoing process in Brazil but not a consolidated one. However, what explains the high level of financialisation ratio in Brazil? The existence of vast amount of financial wealth combining high liquidity and high yield, in which a great part of the economic agents (households, firms, financial institutions, pension funds, etc.) allocate a big share of their financial resources, is one of the most important characteristic of financialisation in Brazil.

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