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FINANCIALIZATION, NONFINANCIAL COMPANIES AND THE RECENT ECONOMIC CYCLE OF BRAZILIAN ECONOMY

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FIRST DRAFT

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ABSTRACT

This paper analyzes the changes in equity strategies of nonfinancial companies in Brazil over the 2000s based on the literature on financialization and Minsky's financial fragility hypothesis. The analysis shows that internal repercussions of the 2008 international financial crisis have resulted in an increase in financial fragility of nonfinancial companies, which largely explains the current recession. The contribution of the paper is to show the appropriateness of Minsky's financial fragility hypothesis to explain the reversal of expansionary investment cycle observed in the mid-2000s and the process of financialization in Brazilian economy.

KEYWORDS: financialization; Brazilian economy, Minsky's business cycle, nonfinancial companies, investment.
JEL: E12; E44; G01.

RESUMO

Este artigo analisa as mudanças nas estratégias patrimoniais das empresas não financeiras no Brasil ao longo da década de 2000, com base na literatura sobre financeirização e na hipótese de fragilidade financeira de Minsky. A análise mostra que as repercussões internas da crise financeira internacional de 2008 resultaram em um aumento da fragilidade financeira das empresas não financeiras, o que explica em grande parte a atual recessão. A contribuição do trabalho é mostrar a adequação da hipótese de fragilidade financeira de Minsky para explicar a inversão do ciclo de investimento expansivo observado em meados dos anos 2000 e o processo de financiarização na economia brasileira.

PALAVRAS CHAVE: financeirização; economia brasileira, o ciclo de Minsky, empresas não financeiras, investimento.

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1. INTRODUCTION

The financialization process of modern economies has been recorded in the economic literature by different currents of heterodox thought - post-Keynesian, Marxist, institutionalist and regulationist[1]. Epstein (2005) offers a well accepted definition of financialization, which is characterized by an increasing importance of markets, and financial institutions acting in economic transactions. Although Epstein's definition is broad enough to describe distinct historical, economic, and social realities, the financialization process of developing economies presents specificities, as pointed out by Bonizzi (2013). In these economies, the phenomenon of financialization is generally associated with liberalization and financial deregulation, so that it is considered, in the words of Karwowski and Stockhammer (2017; 63) externally driven. That is, financialization in developing economies has as its determining factor their subordinated integration to the global financial market.[2]

Karwowski and Stockhammer (op. cit; 61) present six main interpretations of the phenomenon of financialization for developing economies, among which we highlight the liberalization of capital and financial account, the integration of these economies with the global financial market, [3] and an increasing level of indebtedness of nonfinancial companies. The authors also point out that the latter interpretation may give rise to another symptom of the phenomenon of financialization: the fall in investment expenditures by nonfinancial companies, which tends to depress the rate of growth in the long term.

Economic liberalization process was initiated in the second half of the 1980s in the Brazilian economy. Since then, only in 2003-2008, the Brazilian economy showed a continued favorable macroeconomic scenario , when it grew in average 4.2% a.a. This growth occurred in a favorable external scenario of a stable flow of foreign capital, favourable terms of trade and low inflation. According to Bielschowsky and Mussi (2006; 34), this was a period when it seemed that the "era of macroeconomic instability"[4] was surpassed. However,

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[1] Other terms are used as synonyms of financialization in the economic literature. Such as:*finance-led growth regime* (BOYER, 2000), *financial wealth-induced growth regime* (AGLIETTA, 2000), *finance-dominated capitalism* (HEIN, 2012) , *shareholder value orientation* (STOCKHAMMER, 2005-2006), *maximizing shareholder value* (LAZONICK E O'SULLIVAN, 2000); *financial neoliberalism* (PALLEY, 2013) and *finance-led capitalim* (GUTTMANN, 2016).

[2] Powell (2013, 3) defines subordination as: "Subordinate financialisation involves the subjugation of domestic monetary policies to the imperatives of international capital; the turn of domestic corporations to global markets requiring engagement in derivatives, the assumption of market risk and the surrender of profits to foreign investors; and debt financed consumption by an elite who seek to hold their wealth in world money."

[3] Painceira (2009) argues that Brady Plan, in the early 1990s, can be considered the beginning of the process of financial liberalization in the Latin American economies and, in particular, in Brazilian economy. Sicsú (2006) presents a description of changes in the domestic exchange market rules in Brazil in the 2000s with the objective of advancing the country's financial integration. See also Biancarelli (2010) and Carneiro (1999), among others.

[4] Bielschowsky and Mussi (2006) employ the term 'era of macroeconomic instability' to the period after the 1980s. The intensification of the inflationary process, which entails shortening the time horizon of economic decisions, has restricted the space for debates on long-term transformation projects of the economy, which were replaced by stabilization projects '. In other words, persistent and high inflation in a highly indexed economy

this period was abruptly interrupted by the 2008 international financial crisis. From 2008 to 2016, GDP performance was fluctuating, largely reflecting external uncertainty and from 2015 on also uncertainty arising from the domestic political crisis. Since 2015, the Brazilian economy has retreated, accumulating a historical decrease of 7.2% in 2015 and 2016.

The contribution of this paper is to shed some light on the recent sharp downturn of Brazilian aggregate output. The hypothesis of this paper is that the financial crisis in the United States has dramatically changed the external and internal macroeconomic scenarios, negatively impacting investment decisions in fixed assets and also affecting the equity strategies of nonfinancial companies in Brazil. Based on the literature on financialization and on the theoretical apparatus developed by Minsky, we will present empirical evidence on how the reversal of recent business cycle driven by capital formation evolved in Brazil. As it would be expected, companies' strategies became more defensive given the scenario of low growth and the high uncertainty about the possibilities of resumption of the pace of economic growth. On the other hand, the deepening of financialization of the Brazilian economy since the economic liberalization has opened up new possibilities of accumulating wealth, contributing to changes in the financial choices of banks and companies. We conclude that the present crisis of theBrazilian economy is a crisis of Minskian character, and its overcoming will only occur when capacity of capital accumulation by nonfinancial companies is recovered, as well as the degree of confidence in expectations to induce the investment in capital assets.

This paper is divided into five more sections besides this introduction. The second section presents the theoretical discussion on financialization within the theoretical scope of Minsky's economic cycle. The third section briefly highlights the characteristics of the financialization process of the Brazilian economy. The fourth section is devoted to discuss the characteristics of the growth of the Brazilian economy in the 2000s. In the fifth section we will analyze the financing of nonfinancial companies and the last section presents the conclusion of the paper.

2. FINANCIALIZATION AND MINSKY'S BUSINESS CYCLE THEORY

One striking feature of the financialization process of an economy is an increasing level of indebtedness of nonfinancial companies that is not followed by capital accumulation.[5] Therefore, the theoretical apparatus developed by Minsky (1986, 1992) on corporate financing positions and endogeneous financial vulnerability is a starting point to connect the phenomenon of financialization at firm level and its effects on capital accumulation and economic stability.

Minsky's financial instability hypothesis (FIH), developed for an economic environment with a sophisticated and complex financial system, describes how moments of stability and economic turbulence are recurrent. The endogeneous character of the business cycle is interpreted as a rational reaction of economic agents in defense of their wealth. The interconnection of economic agents, mainly beteween nonfinancial and financial sectors, in times of optimism can cause oscillations in asset prices leading to speculative bubbles. The

dominated the economic policy agenda until the success of the Real Plan in 1994. "(CORRÊA and FEIJÓ; 2017, 1)

[5] See, for instance, Stockhammer (2004) and Karwowski and Stockhammer (2017).

presence of speculative bubbles precedes moments of reversal of the economic cycle that lead to recession. Therefore under FIH market economies do not tend to equilibrium. In this context, only through intervention of countercyclcical economic policies the governmental economic authorities can avoid both speculative bubbles and mitigate negative consequences of the downturn of the business cycle.

The process of financialization in developing economies is also deeply related to global financial integration and low regulation on capital flows. This movement, that has been greatly intensified in the 1980s and 1990s, has allowed investors (entrepreneurs, speculators and bankers) to make acquisitions in a wide range of sectors and countries, boosted by an optimism that grew out of an increasing deregulation of financial markets coupled with technological changes.

Because of that, capital accumulation in developed and developing economies has been changing significantly under financialization. Boyer (2000) well illustrates the new capital accumulation methods with increasing financialization. He makes a clear distinction between two types of growth regime: one regime induced by capital accumulation - known as "Fordism" - and another named "finance-led growth regime". In the former, capital accumulation was the result of positive expectations about the growth of demand that induced investment in fixed assets. In the latter regime, the increase in labor productivity is no longer a strategic target for the nonfinancial company. According to him, in a regime of growth led by finance, what matters is the financial profitability of the firm, regardless of whether this is achieved through rapid productivity growth, increased workforce efficiency or oligopolistic incomes arising from innovation (op cit., p. 123). The financialization approach implies that wealth accumulation is not limited to expanding the stock of productive capital, but also to accumulating a diversified basket of assets combining the yields of productive and financial capital. Liquidity preferences and interest rates will tend to be high and aggregate income and output will grow at lower rates, the more the increase in aggregate wealth is the result of increased accumulation of financial assets, . That is, financial assets meet the criteria of offering profitability and liquidity, reducing the degree of uncertainty involved in the process of accumulation of capital in fixed assets. In this way, the increasing financialization of modern economies allows wealth generation to occur, at least for a period of time, in the form of accumulation of non-income-generating assets and employment at the aggregate level.[6]

The reason is that, in a context of financialization, decisions that involve a long period of time end up depending mainly on decisions taken by financial companies to expand financing to meet the demand for capital goods or to reverse the accumulated weight of debt.[7] This implies assuming that a deterioration of expectations will imply a reduction in supply of new loans, raising interest rates. This reaction is aimed at avoiding the erosion of security margins in loans. In this sense, aggregate demand is contracted, but not necessarily the share of income earned by the financial sector. Indeed, in the finance-led growth regime, the share of income earned by wealth owners will tend to increase regardless of the pace of economic growth. In periods of optimistic expectation, a larger volume of loans would guarantee the

[6] Moreover, in a context of financial integration of international capital markets and flexible exchange rates, opportunities for speculation are intensified.

[7] The increase in the importance of external financing is also linked to the process of financialization through changes in the corporate governance of corporations via an increase in shareholder value. This literature highlights the existence of two main channels of transmission of an increase of shareholder power vis-à-vis executives: via preferences and via internal financing HEIN (2012; 2).

income of financial companies and in periods of deterioration of expectations, interest rates would increase when the volume of credit would be reduced. The special role of financial firms in the financialized process of capital accumulation enables the financial sector to increase its share in total income by increasing financial wealth, despite the slowdown in growth rate of aggregate income and output.

Finance-led growth regime amplifies the financial fragility of modern economies. According to Minky’s theory of financial fragility, when expectations are high, agents can count on the expected income to cover their debt commitments. They can also rely on external financing through the issuance of shares, sale of assets or simply through financial loans granted by banks.

Taken by the optimism of a market, investors increase their debt in order to take advantages by investing in financial and capital assets whose expected returns are sufficient to cover liabilities. This group of investors is in a position denominated *hedge*, that is, they are in a position, a priori, that do not depend on new financing to settle their debts. That is, liabilities can be financed by cash flow or capital stock.

High market expectations lead investors to adopt a posture less averse to risk. In a so-called *speculative* financial position, agents need new financing to be able to refinance their debt. Speculators, in general, have expectation that in the long period their expected profits will be able to cover their financial obligations whose tendency would decrease over time.

In terms of financial fragility, the most aggressive and potentially unstable position is the Ponzi position. In this position, it is necessary to make new loans to settle the existing debt. In this case, an increasing debt will be unsustainable in medium and long period.

The greater the number of companies in speculative and Ponzi positions, more the economy will be subject to financial instability. Thus, when the economy is under such conditions, any severe shock such as a rise in interest rate, may trigger a crisis.

In sum, the FIH shows that the economy will become more vulnerable, the faster the number of firms with difficulties to roll over past debt commitments grow. Consequently, the excess of corporate indebtedness negatively affects their investment expenditure. In extreme cases, moments of greater instability may lead to a debt deflation crisis, when the shortage of agents’ liquidity to face their past obligations induce them to sell their assets on an emergency basis. Thus, the tendency is for assets to be sold below their market price, while liquid agents refuse to demand such assets because they exhibit a downward trend in prices.

In brief, Minsky's theory complements the current literature on financialization, especially in the analysis of this phenomenon at the company level, when analyzing possible financial postures for companies and their connection with the economic cycle.

3. SPECIFICITIES OF THE FINANCIAL PROCESS OF THE BRAZILIAN ECONOMY

The process of financialisation of the Brazilian economy presents particularities in relation to other developing economies. As pointed out by Bruno and Caffé (2015, 52), it would have started prior to deregulation and financial and trade liberalization. The authors divide the phenomenon of Brazilian financialization into two periods. The first, between 1970-1993, it is named "hyperinflation". This period is characterized by the upsurge of the inflationary process,[8] when the generalization of contracts indexation to past inflation made possible therentier-financial accumulation via inflationary gains.[9] Once high inflation regime had been defeated in 1994 with the *Plano Real*, a period of "hyper interest rates" started. After the success of price stabilization, inflationary gains lost ground. However, according to the authors, the restricted macroeconomic regime implemented post-stabilization, characterized mainly by high real interest rates in relation to the rest of the world's economies,[10] allowed the rentier-financial accumulation to focus on interest rate gains.

But before price stabilization, since late 1980s, several liberal structural reforms were under way, following the Washington Consensus (1988) recommendations. These reforms encompassed different fronts, but had as their flagship the liberalization of capital and financial account (BRUNO *ET AL*, 2011; CARNEIRO, 2002). According to De Paula et al (2017), e liberalization of capital account has been the main responsible for keeping basic interest rates at high level to attract capital, mostly of short-term. The volatility of this sort of capital, on its turn, impacts negatively the real exchange rate, which tends to be appreciated, as the economy turns more vulnerable to external shocks.

The high level of real interest rate also increases the profitability of financial assets, especially post-fixed federal governmental bonds that are indexed to short-term interest rates (BRUNO *ET AL*, op. cit). Indeed, De Paula (2017, 4) points out that since price stabilization this market exists and it finances around 20% of public debt.

In brief, the financialization of the Brazilian economy was not initiated with the process of deregulation and commercial and financial opening. However, this process boosted both the deepening of financialization and inaugurated a new phase of this phenomenon.

4. THE BRAZILIAN ECONOMY IN THE 2000s: GROWTH DRIVEN BY GROSS FIXED CAPITAL FORMATION

Looking at the Brazilian growth performance in the last 20 years, the 2004-2010 period is one that incorporates the greatest growth rates (4.5%average rate per year). [11] During this phase, which is associated with favorable international conditions (international liquidity plus commodities prices boom), economic growth was driven by gross capital formation of fixed capital (GFCF) which expanded 8.2% per year.

Chart 1 shows the evolution of GDP and GFCF growth rates since 1996. From the second half of 2006 there is an almost overlapping of the two series, indicating that GDP growth was led by GFCF. Actually, the 0.1% fall in GDP in 2009, following the contraction in global demand and the collapse in commodity prices, is also followed by GFCF

[8]In the period between 1970 and June 1994 the average monthly inflation rate (IGP-DI) was 10.8%. However, inflation accelerated sharply in the late 1980s, with the average monthly inflation rate (IGP-DI) between 1988 and June 1994 at 26.6%.

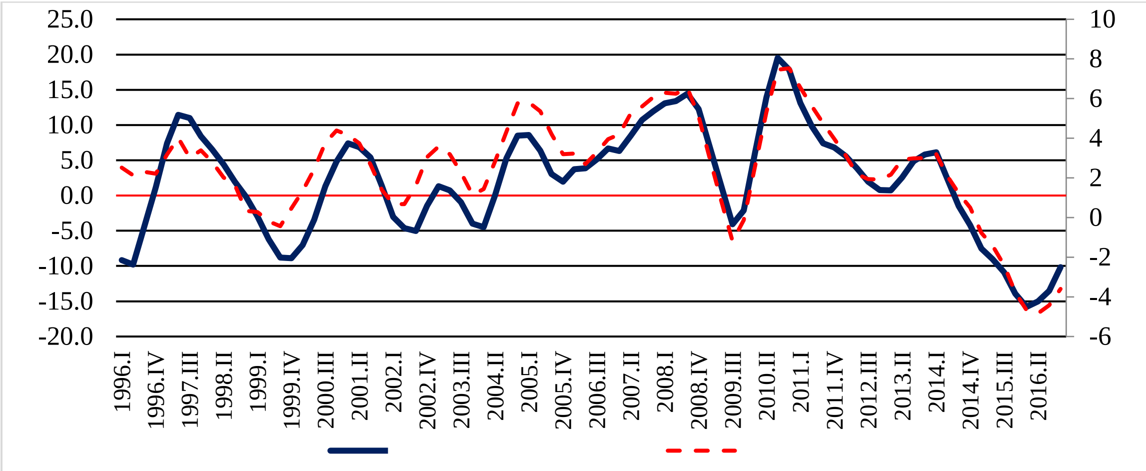
[9] There is a vast literature on high inflation regime in Brazil. See, for instance, Feijo and Carvalho, 1992.

[10] Between 1996 and 2014, the real basic interest rate was 10.4% in average.

[11] The acceleration of the growth rate was driven by improvements in the terms of trade and net exports. Domestic consumption and investment increased significantly. The latter had benefited both from the export boom and from an increase in consumption caused by an improvement in the distribution of income, not to mention an increase in the supply of consumer credit. Carneiro (2017; 3) argues that investment rate could have been higher in the period between 2003 and 2010, if there had not occur a leakage of part of the demand for machinery and equipment and intermediate inputs abroad due to the regressive specialization suffered by the domestic industry, due to the trend of overvaluation of the real exchange rate.

contraction.[12] As investment responds with a lag to changes in GDP, the fall in GFCF growth rates occurred in the second half of 2009.

Chart 1 – Evolution of the GDP and GFCF growth rates[1] (%) - 1996-2016



Source: National Accounts (IBGE)| Own elaboration

[1] Cumulative rate in four quarters in relation to the same period of the previous year.

In 2010, as a result of the countercyclical policies implemented by the government in 2009, the economy grew 7.5% and positive GFCF growth rates were reestablished. The peak of the GFCF series was reached in the third quarter of 2010. The recovery observed in 2010 was timely, and GDP and GFCF growth rates remained positive until 2014, although growth rates were decreasing since 2011..

Serrano and Summa (2015) argue that the government did not stay insensible to the collapse of the investment rate. In order to stimulate its recovery, policies aiming at reducing costs and consequently raising profit margin were implemented since 2011. Such policies were the reduction of the nominal interest rate charged by the National Economic and Social Development Bank (BNDES- *Banco Nacional de Desenvolvimento Econômico e Social*) - (stimulating new investment loans); currency devaluation (raising competitiveness and exporters's margin of profit); tax relief on the payroll of several industrial sectors (latter on expanded to other sectors) and reduction of taxes on capital goods imports. As a result of these interventions, rate of investments were positive until 2014, in spite of the deceleration in aggregate consumption and exports.

In short, the expressive increase in the investment rate from the mid-2000s on was a result of the optimistic expectations on the potential growth rate of the Brazilian economy directly related to the commodity prices boom and to the accelerated growth of the Chinese economy. Therefore, an auspicious scenario was set up so that spontaneous optimism would emerge. As a result of this favorable scenario, companies increased their indebtedness to finance productive investments, as expectations of future returns were that the expected cash flow would be sufficient to cover operating and financial costs. However, the sudden change in the external scenario, with negative impact on business expectations, started to deteriorate the companies' financial balance. In this sense we understand that the Brazilian economy

[12] Serrano and Summa (2015) showed that the sharpest fall was in the "machinery and equipment" component, which grew at an average rate of 12.3% in the period 2004-10 and 0.7% between 2011 and 2014.

started the descending phase of a "Minskyan business cycle", as the change in the external macroeconomic scenario hit the Brazilian economy in the ascending phase of the investment recovery. Once the economic measures implemented in 2009 were exhausted investment rate started to decelerate. Moreover, the economic measures taken in 2011 onwards to boost investment, showed little efficacy, as mentioned by Serrano and Summa (op. cit), because they did not reverse long-term expectations. Actually, the domestic macroeconomic indicators (public debt and inflation) were worsen off, contributing to blur the future prospects of the economy. From 2014 on the Brazilian economy clearly entered a recessive phase.As seen in section 2, the financial relations involved in financing investment in capital assets in modern economies explain the causes of cyclical reversals. In the next section we will examine the evolution of the financing of investment in recent business cycle in Brazil.[13]

5. FINANCING OF THE INVESTMENT AND THE BEHAVIOR OF NONFINANCIAL COMPANIES

An interesting aspect of the current domestic financial crisis is that the pattern of financing is changing. A report recent released by the Brazilian Planning Institute (IPEA, 2013) shows that although retained profits still is the main source of the companies's investment funding, its role is being reduced, what, according to our view, turns the economy more fragile. Disbursements by BNDES[14] and access to international financial resources are being increasingly used.

In what follows we will present the evolution of the main sources of financing of domestic investment considering: retained profits; foreign indebtedness; evolution of domestic credit. A final section will consider the financialization of nonfinancial companies.

A. RETAINED PROFIT

Retained profit is the main source of financing capital accumulation in Brazil. [15] Indeed, Table 1 shows that from 2003 to 2007 retained profits exceeded investment spending. In the 2010-2013 period retained profits respond for around of 80% of the capital formation. As pointed out by IPEA (op. cit; 9) since the 1990s Brazilian companies, mainly large ones, have been increasing their level of indebtedness (total and long-term), moving closer towards a credit-based financing structure. One consequence of this movement, according to Minsky's theory, is that when expectations are reversed, indebtened firms may find difficult to meet their debt commitments and so may be forced to increase indebtedeness to roll over past debts and decelerate or postpone their investment plans.

[13] The external scenario after the international financial crisis is characterized by the change in the Chinese growth policy and, as Carneiro (2017) points out, by the change in the North American monetary policy , which goes from expansionist to contractor in mid-2013.

[14] The evolution of BNDES disbursements also shows a change in trend over 2000-2014. Between 2000 and 2013, BNDES total disbursements in nominal terms showed a growing trend, except in 2011. From 2014, the trend becomes negative and deepens in 2015. The disbursements of the programs focused on the purchase of machinery and equipment have the same behavior.

[15] See, for instance, Singh (1995), Moreira and Puga (2000); Almeida et al (2013). It is worth mentioning that Melo and Rodrigues Júnior (1998) and also Ribeiro and Teixeira (2001), both quoted in Luporini and Alves (2010) demonstrate econometrically that the availability of credit is a relevant variable and positively influence private investments.

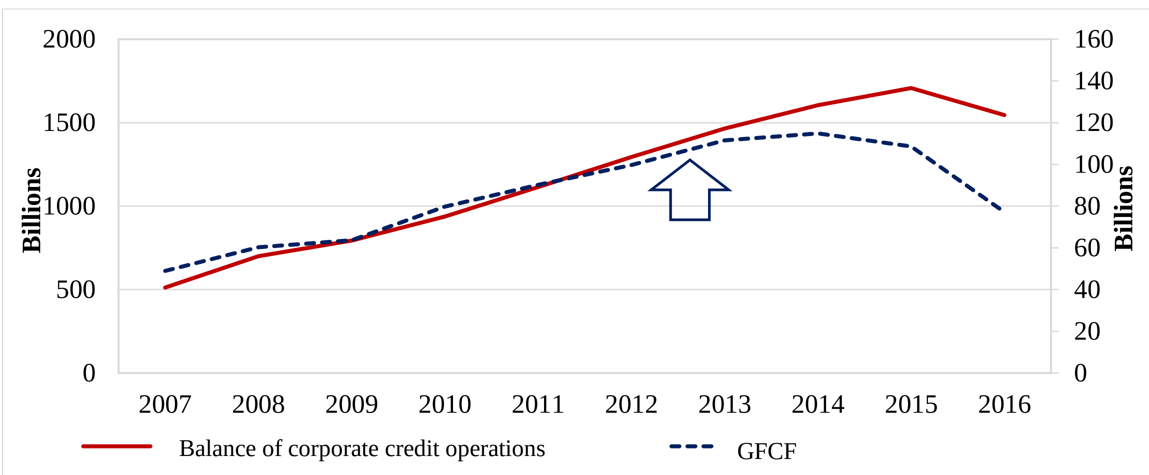
Table 1 - Retained profit as share of GFCF of nonfinancial companies[1] (%): 2000-2014

2000	2001	2002	2003	2004	2005	2006	2007
105.3	98.7	89.7	120.9	126.1	112.4	115.7	100.5
2008	**2009**	**2010**	**2011**	**2012**	**2013**	**2014**	
96.6	99.1	76.7	78.4	77.2	86.3	97.8	

[1]Disposable income on gross capital formation
Source: National Accounts – IBGE. | Own elaboration.

This might have happened in the recent business cycle from mid-2013 onwards. Comparing the evolution of the GFCF and the evolution of credit to firms (balance of corporate credit operations considering free and targeted resources) we can observe that investment expenditure decelerate while credit continued to expand.It is also observed that the credit balance, excluding 2010, grew at higher rates than investments. However, from 2013 onwards, there was a drop in the growth rate of the two curves.

Chart 2 - Gross Fixed Capital Formation and Private Sector Credit Operations 2007-2016.



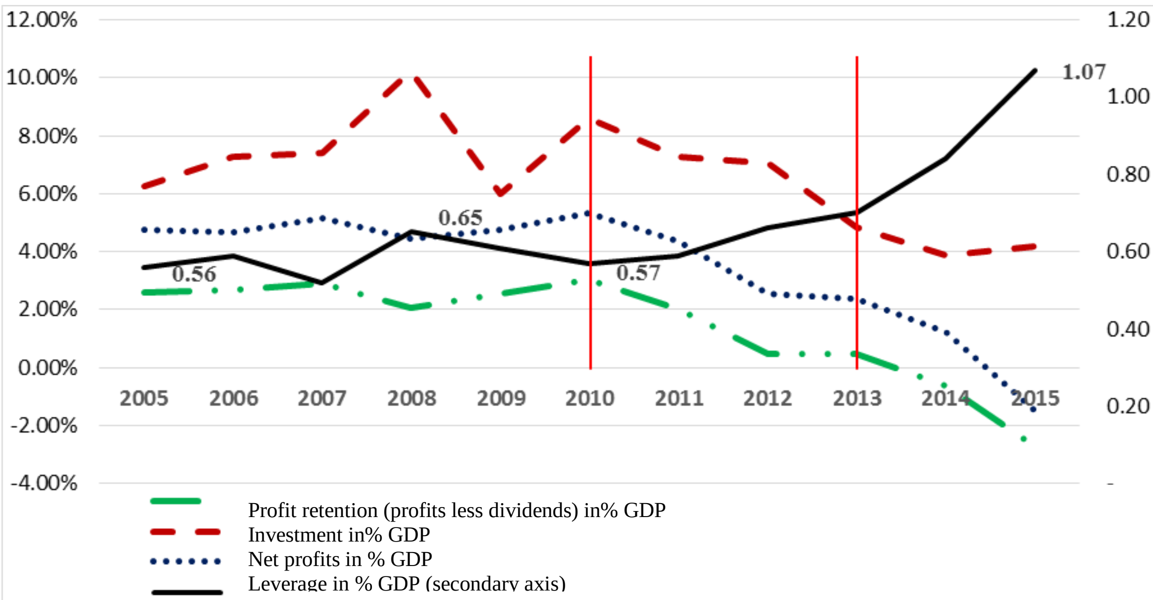
Source: National Accounts and Central Bank of Brazil | Own elaboration.

The fact that corporate credit continues to increase as investment begins to decelerate may be taken as a sign of the beginning of an increase in financial fragility as exposed in section 2. Therefore, Chart 2 seeks to identify the critical moment when a growing number of companies might have been disappointed in their expectations of revenue to face their debt commitments. In this case they might have been forced to refinance their debts under worse and riskier conditions and at the same time cut discretionary expenditures. It shoul be added that the basic interest rate started to be increased in 2012, moving from 7.25% per year to 14.25% per year in 2016. [16]

[16] In addition to these facts, the indicators on the perception of businessmen in the industrial sector (according to the National Confederation of Industry - CNI) on relevant variables to business decision-making got worse after the brief recovery of the expectation indicators of businessmen in 2009/10. Thus, the comparison of the

Two recent studies (CEMEC, 2016; ROCCA, 2016) also point that there is a change in the pattern of corporate financing and a deterioration in nonfinancial companies balance sheets since 2010. According to these studies, the variables net profit, investment, leverage and retention of profits have changed (Chart 3) after 2010. Net income, profit retention and investments are on a downward path, [17] getting worse from 2013 onwards. Likewise, the downward trend in retained profit as part of the gross capital formation of nonfinancial companies accelerates from 2010 until its reversal in 2013.

Chart 3 - Joint-stock companies with Petrobras and Largest Closed Companies: selected indicators, 2005-2015



Source: Rocca (2016) - Cemec's database | Own elaboration.

B. FOREIGN INDEBTEDNESS

The increase in the leverage ratio and in the decline in retained profit was also accompanied by a change in debt composition of nonfinancial companies. This change is characterized by an increase in the importance of foreign debt. According to data from the

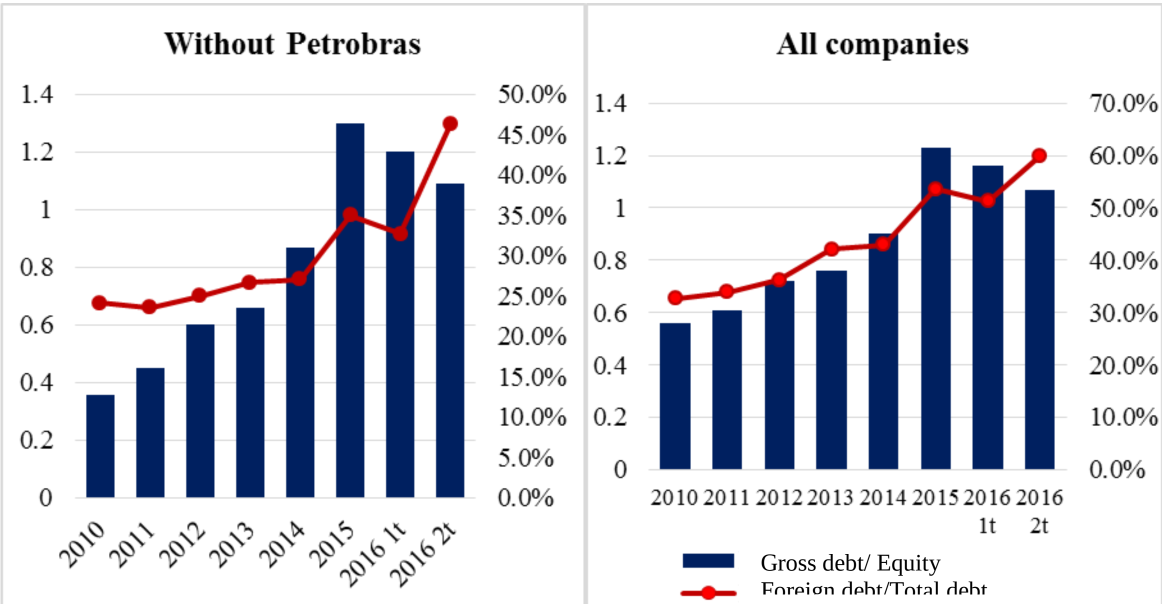
curves shown in chart 2, which indicates the slowdown of investment from 2012/3, coincides with the sharp drop from 2013 in three indexes: satisfaction index with the operational profit margin, satisfaction index with the financial situation and access to credit facility. The degree utilization of installed capacity falls from 2009, together with the decay in the business confidence degree. At the end of 2015 all indexes presented the worst position of their historical series.

[17] The investment rate reverses the downward trend in 2015, but data on gross fixed capital formation in the same year show a drop of more than 18%. In addition, preliminary data for quarterly accounts show a greater decline in gross fixed capital formation in the first three quarters of 2016 compared with the same periods of 2015.

Central Bank of Brazil, from the second quarter of 2007 to the second quarter of 2016, gross external debt of nonfinancial companies grew 142.62%.

The CEMEC study (op.cit.) shows that among the joint-stock companies, without Petrobras, the share of debt in foreign currency increased from 24.2% in 2010 to 46.3% in the second quarter of 2016 (Chart 4). Adding Petrobras, the situation is more alarming since foreign currency debt increased from 32.7% in 2010 to 60.0% in the second half of 2016. The increasing of foreign currency debt increases the foreign exchange exposure of companies and their vulnerability to international liquidity shocks. Thus, one more element of uncertainty and instability is added to investment financing process.

Chart 4 - Debt composition of nonfinancial joint-stock companies 2010-2016

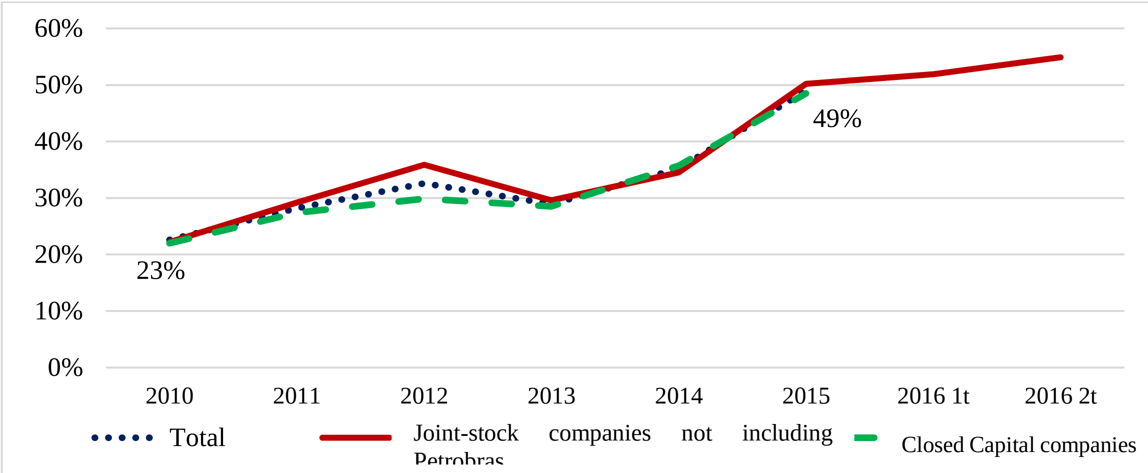


Source: Cemec (2016) | Own elaboration.

C. DOMESTIC CREDIT EVOLUTION: COST AND RATIONING

The combination of increasing debt coupled with declining net profit signals that significant portion of nonfinancial companies is in a speculative or Ponzi position. Indeed CEMEC study (2016) shows that there is an increasing number of companies that are not able to generate enough cash to cover their financial commitments. According to data, the total number of companies (joint-stock companies and largest closed capital companies) in this situation rose from 22.6% in 2010 to 49.0% in 2015 (Chart 5).

Chart 5 - Percentage of Brazilian companies with positions considered Ponzi 2010-2016.2



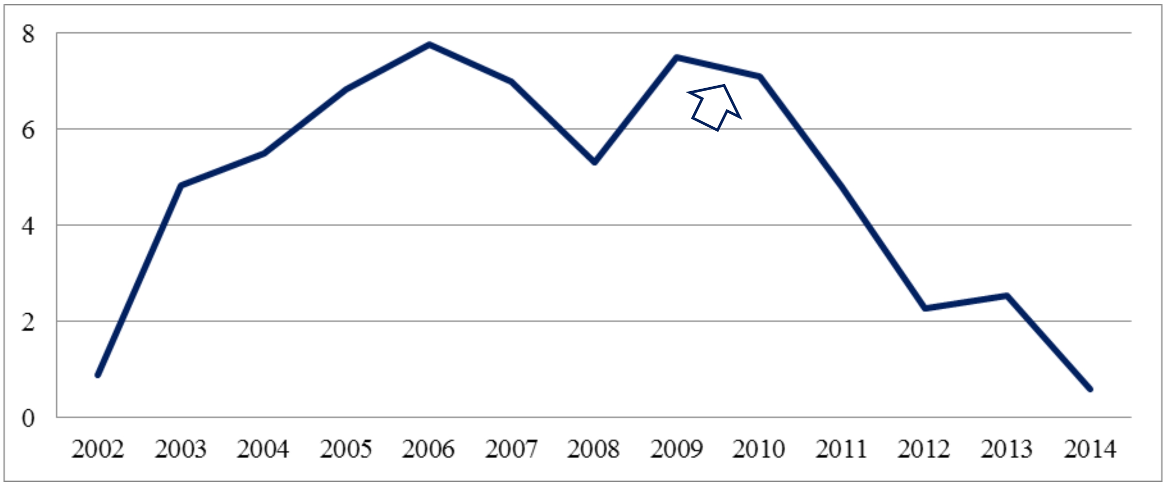
The number of companies showing the EBITDA / Financial Expense indicator> 1.
Source: Cemec (2016) | Own elaboration.

Chart 5 shows that the number of over-indebtedened firms started to increase from 2013 onwards. This coincides with the decline in GDP growth rate. Information from Chart 5 and Chart 2 confirm that 2013 was the critical year to the reversal of the recent growth cycle led by capital formation.

Considering only companies of the industrial sector (manufacturing and mining), we are able to evaluate the evolution of the financial fragility of the sector through an index proxy of financial fragility. [18] The interpretation is that the lower the indicator the higher is the degree of fragility. Chart 6 shows that industrial surplus had been falling in relation to debt and duties commitments since 2010. In 2012, for a short period, the share of surplus stopped falling, but from 2013 onwards industrial surplus generation came close to non-operating commitments.

[18]The Proxy to measure the financial fragility of the industrial sector was calculated as: $\frac{\gamma}{(\varphi+\omega)}$. Where γ is the total surplus of manufacturing and mining industries obtained as the difference between all receipts and all expenditures and φ and ω are the sum of non-operating expenses and taxes and duties of both industries (Source: Annual Industrial Survey, IBGE). See also Almeida et al (2016) that present ana analysis for financial fragility based on an index proposed by Dreirsem.

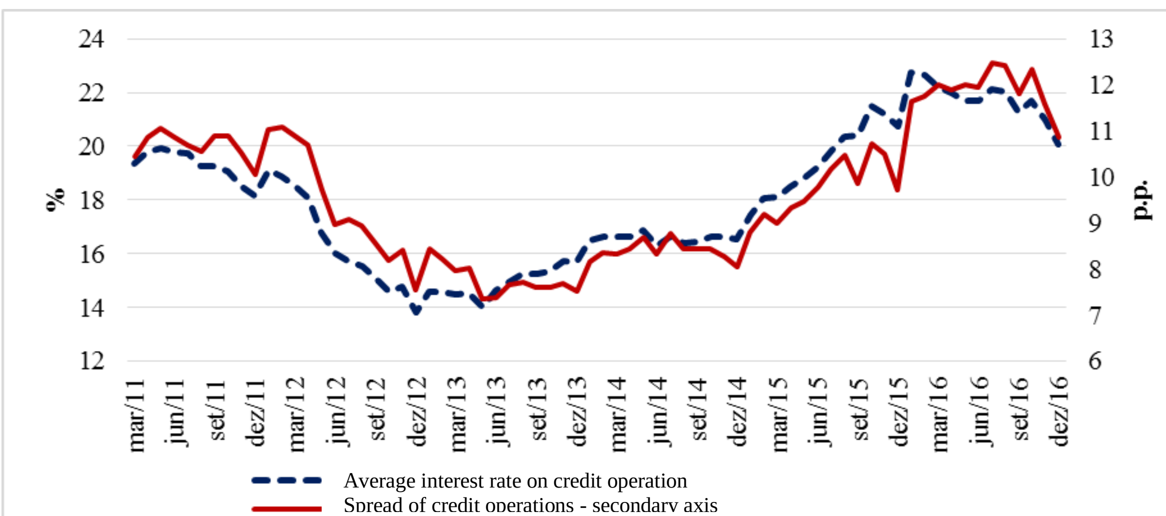
Chart 6 – Indicator Proxy of the financial fragility of the manufacturing and mining industries- 2002-2014.



Source: Annual Industrial Survey (IBGE) | Own elaboration.

As pointed out earlier, when an economy presents a high number of companies with a speculative and/or Ponzi position, it is subject to more financial instability and is more susceptible to systemic and contagion risk. Considering the interest rate evolution and the banking spread (Chart 7) the Brazilian economy entered a phase of greater fragility with the increase of both rates from 2013 onwards.

Chart 7 - Average interest rate (in %) and average spread (in p. p.): 2011-2016



Source: BCB | Own elaboration.

Finally, it should be added that not only did the cost of credit increasead, but also the supply of credit had been rationed since 2013. According to data from the Central Bank of Brazil, credit operations exhibit a decreasing trend from 2011 onwards.

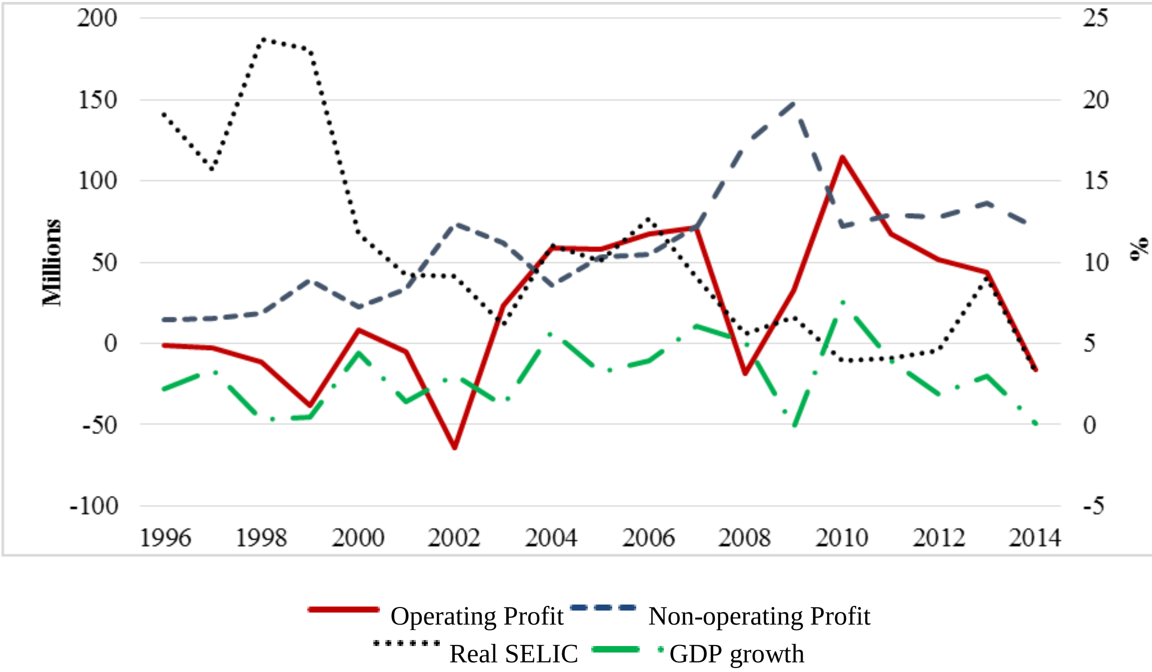
D. FINANCILIZATION OF NON FINANCIAL FIRMS

As seen in section 2, one of the characteristics of financialization process is the redistribution of profits from the nonfinancial sector to the financial sector, in which the share of profits from the nonfinancial sectors would decay in favor of an increase in the share of profits of the financial sector (see, for example, PALLEY, 2013; 5). Also, the financialization process leads to a change in the composition of profits in the nonfinancial sector, so that non-operating profit would increase its share as a result of a fall in the share of operating profit (see, for example, CLÉVENOT, 2006: 4). That is, the companies would compensate part of the reduction in revenue from their traditional activities with the increase of the financial activity.

Taking into account the importance of financial companies in the Brazilian economy, it is observed that the share of financial sector in total gross operating surplus (GOS) increased from 5.8% in 2000 to 9.5% in 2014. Another way to register the increase in the importance of the financial sector is the amount of interest paid by the economy as a whole, which represented 33.3% of GDP in 2013 (National Accounts - IBGE).

Chart 8 shows for the manufacturing sector the evolution of the composition of operating profit and the non-operating profit , according to the Industrial Annual Survey data.. Operating and non operating profits present distinct trajectories. First, it should be noted that non-operating profit exceeds operating profit for most of the years. Non-operating profit presents a significant fall when real basic interest rate (Selic) exhibited the lowest rate of the period (3.9% in 2010). The trajectory of operating profit is more erratic, so that it is possible to clearly distinguish only two movements: increasing trend (2003-2007) and decreasing trend (2012-2014).

Chart 8 – Operating profit[1] versus non-operating profit[2], Real Selic rate[3] and GDP growth for manufacturing industry - 1996-2014



[1] Operating profit was calculated by subtracting total operating expense from total operating revenue.
[2] Non-operating profit was calculated by subtracting total non-operating expense from total non-operating revenue.
[3] The annual Real Selic Rate was calculated by geometric mean of the accumulated monthly real rates per year. The inflation index used was the IPCA.
Source: Annual Industrial Survey - IBGE | Central Bank of Brazil (Selic) | Carta Conjuntura n. 31- Ipea (GDP). Own elaboration.

6. CONCLUDING REMARKS

As discussed in this paper, the 2008 international financial crisis contributed to a change in the patrimonial strategy of nonfinancial companies. In the expansionary phase of business cycle prior to the international financial crisis (2003-2008), Brazilian companies were stimulated to increase their productive investments. This increase occurred with a change in the profile of corporate investment financing, so that the share of external financing was increased. As a consequence of this process, the level of indebtedness of these companies substantially increased in that period.

On the other hand, since the implementation of the liberalizing reforms in the late 1980s, there has been a deepening of the process of financialization of Brazilian economy. In terms of the nonfinancial companies, this deepening was mainly through an increase in the level of indebtedness, the higher dependence on external resources and the increase in non-operationing profit.Since 2010, profit retention and corporate net profit have been declining for nonfinancial companies, while their level of indebtedness and leverage are increasing. As a result of this process, 49% of joint-stock companies and largest closed capital companies were not able to generate enough cash to pay their financial obligations in

2015. In addition, the banking sector restrictive behavior (increase in bank spread and selectivity in credit concessions) contributes to deepening of the cycle of corporate debt by increasing the costs of rolling over past debts.

Given an increase in leverage of a significant number of Brazilian companies since the investment boom that started in mid-2000s, it is possible to suggest that part of this companies has a Ponzi position. According to the FIH, an economy that has a high number of companies with a speculative or Ponzi position, is subject to a higher financial instability and is more susceptible to systemic risk and contagion.

Therefore, part of the explanation for the deep recession that Brazilian economy is experiencing can be found on the behaviour of nonfinancial corporations which are in a descending phase of a typical Minskyan business cycle. This declining phase is aggravated by current economic austerity policy of the federal government, and most regional governments. The way out of the present recession depends on the recovery of private investment, but neither the macroeconomic policy or the current financial configuration of companies contribute to the achievement of the proposed strategy for end Brazilian economic recession.

BIBLIOGRAPHY

AGLLIETTA, M. (2000). Shareholder value and corporate governance: some tricky questions, *Economy and Society*, 29, 146-159.

DE. ALMEIDA, J.S.G (2011), Como o Brasil superou a crise, IN Desdobramentos da crise financeira internacional, *Revista de Economia Política*, vol. 31, nº 2 (122), 315-335, abril-junho.

DE ALMEIDA, J.S.G.; NOVAIS, L.F.; ROCHA, M.A. (2016) A fragilização financeira das empresas não financeiras no Brasil pós-crise Texto para Discussão. Unicamp. IE, Campinas, n. 281, set. 2016.

DE ALMEIDA, J.S.G.; CINTRA, M. A M; JACOB, C A; NOVAIS, L. F; FILLETI, J de P. (2013), Padrões de financiamento das empresas: a experiência brasileira, IN CINTRA, M.A. M. and SILVA FILHO, E. B. (org.) *Financiamento das corporações: perspectivas do desenvolvimento brasileiro*. IPEA, Brasília. Acesso em 22 de janeiro de 2017, disponível em: http://www.ipea.gov.br/portal/index.php?option=com_content&view=article&id=18132

BIANCARELLI, A M. (2010). A visão convencional sobre a abertura financeira e suas mutações recentes, *Estudos Econômicos*, vol. 40, nº. 4, 917-942, outubro-dezembro.

BIELSCHOWSKY, R. and MUSSI, C. (2006). El pensamiento desarrollista en Brasil: 1930-1964 y anotaciones sobre 1964-2005. In: CAVE, R. *Brasil y Chile: una mirada hacia América Latina.* Santiago de Chile: RIL Editores, 2006.

BONIZZI, B. (2013). Financialization in Developing and Emerging Countries: A Survey *International Journal of Political Economy*, vol. 42, nº. 4, 83–107

BOYER, R. (2000), Is a finance-led growth regime a viable alternative to fordism? A preliminary analysis, *Economy and Society*, vol.29, nº1, 111–145.

BRUNO, M. E CAFFÉ, R. (2015), Indicadores macroeconômicos de financeirização: metodologia de construção e aplicação ao caso do Brasileiro. IN: *Indicadores macroeconômicos de financeirização: metodologia de construção e aplicação ao caso do Brasil.* Rio de Janeiro: IBGE.

BRUNO, M.; DIAWARA, H.; ARAUJO, E.; REIS, A.N.; RUBENS, M. (2011). Finance-Led Growth Regime no Brasil. *Revista de Economia Política* (Impresso), vol. 31, nº 5, 730-750.
CARNEIRO, R (2017). Navegando a contravento (Uma reflexão sobre o experimento desenvolvimentista do Governo Dilma Rousseff) Texto para Discussão. Unicamp. IE, Campinas, n. 289, mar. 2017.
_____________ (1999), Globalização Financeira e Inserção Periférica. *Economia e Sociedade*, vol.13, 57-92.
_____________ (2002), *Desenvolvimento em Crise – A economia brasileira no último quarto do século XX* , São Paulo, Editora UNESP, IE – Unicamp.
CEMEC (2016), Endividamento das empresas brasileiras: metade das empresas não gera caixa para cobrir despesas financeiras em 2015/2016, *Nota Cemec n. 06*, agosto de 2016, Instituto IBMEC Mercados de Capitais.
______ (2015), Fatores da queda do investimento 2010-2014, *Nota Cemec 03/2015*, março de 2015, Instituto IBMEC Mercados de Capitais.
CLÉVENOT, M. (2006), Financiarisation, régime d'accumulation et mode de régulation. Peut-on appliquer le « modèle » américan à l'èconomie française ? *Tese,* Université Paris-Nord – Paris XIII), 2006, 377 pp.
CORRÊA, M.F. and FEIJO, C. (2017) O desenvolvimentismo no Brasil: o debate atual, Resvista de Análise Econômica (RAE), edição especial, Porto Alegre.
DE PAULA, L F; FRITZ, B. and PRATES D. (2017)
ESPTEIN, G. (ed.) (2005), *Financialization and the World Economy,* Edward Elgar, Cheltenham.
FEIJO, C and CARVALHO, F J C de. (1992). The Resilience of High Inflation and Recent Brazilian Failures with Stabilization Policies. *Journal of Post Keynesian Economics*, EUA, v. 15, n.1, p. 109-124.
FILGUEIRAS, L. (2006) O neoliberalismo no Brasil: estrutura, dinâmica e ajuste do modelo econômico. In: BASUALDO, E. M.; ARCEO, E. *Neoliberalismo y sectores dominantes. Tendencias globales y experiencias nacionales.* CLACSO, Consejo Latinoamericano de Ciencias Sociales, Buenos Aires. Agosto.
GUTTMANN, R. (2016), *Finance-Led Capitalism: Shadow Banking, Re-Regulation, and the Future of Global Markets,* Palgrave Macmillan US, New York, 286 pp.
HEIN, E. (2012), *The Macroeconomics of Finance-dominated Capitalism – and Its Crisis*. Edward Elgar Publishing, Cheltenham, 232 pp.
IPEA (2013). *Financiamento das Corporações: perspectivas do desenvolvimento brasileiro,* Cintra, M. A. M. and SILVA FILHO, E. B. (org), Ipea, Brasília.
KARWOWSKI, E. and STOCKHAMMER, E. (2017), Financialisation in emerging economies: a systematic overview and comparison with Anglo-Saxon economies, *Economic and Political Studies,* vol. 5, nº1, 60-86.
KREGEL, J. (2000), The Brazilian Crisis: From Inertial Inflation to Fiscal Fragility, Economics *Working Paper*, nº294, Levy Economics Institute.
KRIPPNER, G. (2011), *Capitalizing on Crisis: The Political Origins of the Rise of Finance*, Harvard University Press, Cambridge, 240 pp.
LAZONICK, W. and O'SULLIVAN, M. (2000). Maximizing shareholder value: a new ideology for corporate governance, *Economy and Society*, vol. 29, nº1, 13-35.
LOURENÇO, A. L. (2006). O pensamento de Hyman P. Minsky: alterações de percurso e atualidade. *Economia e Sociedade*, vol. 15, 445-474.

LUPORINI, V. and ALVES, J. (2010) Investimento privado: uma análise empírica para o Brasil. *Economia e Sociedade*, Campinas, vol. 19, nº. 3, 449-475.

MINSKY, H. P. (1986). *Stabilizing an unstable economy*. New Haven: Yale University Press, 1986.

___________ (1992). The Financial Instability Hypothesis. *Working Paper*, nº. 74, Levy Economics Institute.

MOREIRA, M. M.; PUGA, F. P. (2000), Como a indústria financia o seu crescimento: uma análise do Brasil pós-plano Real. Rio de Janeiro: BNDES, *Texto para Discussão*, nº. 84, outubro.

PAINCEIRA, J P (2009). Developing countries in the era of financialisation: from deficit accumulation to reserve accumulation, *Texto para discussão*, nº 4, Research on Money and Finance, School of Oriental and African Studies.

PALLEY, T. (2013), *Financialization: The Economics of Finance Capital Domination*. Palgrave Macmillan,.Nova York, 233 pp.

DE PAULA L.F. (2017). A economia brasileira em condições de instabilidade financeira. Acesso em 10 de Janeiro de 2017, disponível em http://www.luizfernandodepaula.com.br/ups/economia-brasileira-em-condicoes-de-instabilidade-financeira-01.pdf

POWELL, J. (2013), Subordinate Financialisation: A Study of Mexico and Its Nonfinancial Corporations, *Tese de Doutorado*, SOAS, London, 2013, 354 pp.

ROCCA, C.A. (2016), Desafios da retomada do investimento privado: A necessidade de uma nova estratégia de crescimento. Apresentação feita no IBRE-FGV em outubro de 2016, Rio de Janeiro.

SERRANO, F. and SUMMA, R. (2015). Demanda agregada e a desaceleração do crescimento econômico brasileiro de 2011 a 2014. Center for Economic and Policy Research.

SICSÚ, J (2006). Rumos da Liberalização Financeira Brasileira, *Brazilian Journal of Political Economy* (Revista de Economia Política), vol. 26, nº. 3, 364-380.

SINGH, A. (1995), Corporate financial patterns in industrializing economies: a comparative international study. *International Finance Corporation technical paper*; nº 2, IFC working paper series. Washington, D.C.

STOCKHAMMER, E. (2005-2006), Shareholder value orientation and the investment-profit puzzle. *Journal of Post Keynesian Economics*, nº.28, 193-215.

___________________ (2004), Financialization and the Slowdown of Accumulation. *Cambridge Journal of Economics*, vol. 28, nº 5, 719–741.