IS THERE A CONNECTION BETWEEN FINANCIALIZATION AND STRUCTURAL CHANGE? A CRITICAL APPRAISAL FOR BRAZIL.

Mariana Finello Corrêa
Ph.D. candidate at PPGE-UFF

Abstract

The phenomenon of financialization assumes its characteristics on the periphery of capitalism, in a way that reproduces the patterns of subordination existing in the center-periphery dynamic as described by the structuralist literature. Since economic opening in the 1990s, and the deepening of the financialization process in Latin America, the deindustrialization process has increased, and the region is falling behind. The Brazilian economy, once one of the most dynamic economies in the world, is an emblematic case of the deindustrialization process and loss of dynamism. Taking as reference the Brazilian case, the contribution of this paper is to discuss the particularities of the financialization process in peripheric economies, with, emphasizing the channels through which financialization contributes to redefining the trajectory of structural change in the peripheral economies. The channels that will be presented are the financialization of non-financial corporations and the financialization dynamics of the determination of the exchange rate and commodity prices, which is associated with the presence of the Dutch disease.

JEL: O14; O16, O23, F 62

KEY-WORDS: financialization, structural change, Brazilian economy.

Resumo

O fenômeno da financeirização assume características na periferia do capitalismo, de maneira a reproduzir os padrões de subordinação existentes na dinâmica centro-periferia, conforme descrito na literatura estruturalista. Desde a abertura econômica na década de 1990 e o aprofundamento do processo de financeirização na América Latina, o processo de desindustrialização aumentou. A economia brasileira, que já foi uma das economias mais dinâmicas do mundo, é um caso emblemático do processo de desindustrialização e perda de dinamismo. Tomando como referência o caso brasileiro, a contribuição deste artigo é discutir as particularidades do processo de financeirização nas economias periféricas, enfatizando os canais pelos quais a financeirização contribui para redefinir a trajetória de mudança estrutural nas economias periféricas. Os canais que serão apresentados são: a financeirização de empresas não financeiras e a dinâmica da financeirização da determinação da taxa de câmbio e dos preços das commodities, que está associada à presença da doença holandesa.

PALAVRAS-CHAVES: financeirização, mudança estrutural, economia brasileira.
1. Introduction

In the last century until the end of the 1970s, a large number of Latin American economies experienced an in-depth process of structural change characterized mainly by rapid urbanization and economic growth based mainly on industrialization and diversification of the exports (BÉRTOLA AND OCAMPO, 2014). The Brazilian economy was one of the most successful experiences in the industrialization process based on import-substitution strategy in this period, as its growth rate exceeded the rest of the world economies after the second world war.\(^1\) It can be said that the structural change observed in this period was characterized by a progressive or positive trajectory, in the sense that the Brazilian productive structure came closer to the central economies.

In the 1980s, the so-called “the lost decade” for Latin American economies, this positive trajectory of growth was reverted, therefore a process of deindustrialization started to take place in Brazil. The international interest rate shock (the Volcker shock) and the second oil crisis in the late 1970s turned the burden of the foreign debt unsustainable. In a context of international liquidity constraint, the import-substitution model was not functional to sustain aggregate demand with price stability, because the external shock in the early 1980s could not be absorbed by market forces without imposing severe constraints on the growth. For Brazil, the foreign debt crisis manifested itself in a sharp balance of payments constraint, which led to the stagnation of the GDP growth and high inflation for over a decade.

The Latin American external debt negotiations had several phases during the 1980s, culminating with the Brady Plan (1988-1989). Brazil was the last country to be incorporated in the Brady Plan and embrace the Washington Consensus recommendations.\(^2\) Among these recommendations, the one with a major impact on the functioning of the Latin American economies was economic opening, which was justified because it would eliminate the biases of the high level of protectionism and state intervention of the import substitution strategy (PRATES, 1999: 56). The ‘failure’ of the import substitution industrialization strategy was compared with the success of the outward strategy

---

\(^1\) Bértola and Ocampo (2014) define the period of rapid industrialization in Latin America as state-led-industrialization.

\(^2\) According to Albala-Bertrand’s (1991: 471) review of Williams’s book: “Williamson's 'Washington consensus' refers to a policy package for stabilisation that, according to the author, commands high agreement in Washington political and technocratic circles. This package amounts to macroeconomic prudence, outward-orientation and 'free market' capitalism. The policies are: fiscal discipline (i.e. zero or small deficits), public expenditure reduction (i.e. eliminating subsidies and reducing the public sector wage bill), tax reform (i.e. broad base, simple application rules and moderate or absent marginal rates), financial liberalisation (i.e. interest rates should be both market-determined and positive in real terms, and foreign exchange should not be controlled), the exchange rate (i.e. it should be market-determined and positive in real terms for outward-oriented recovery), trade liberalisation (i.e. import liberalisation by setting a small homogeneous tariff across the board and eliminating all other restrictions), foreign direct investment (i.e. unrestricted capital inflows, especially in debt-equity swaps), privatisation, deregulation and property rights (i.e. rules needed to secure the satisfactory operation of the capitalist system).”
implemented in Asian countries. Thus, the acceptance of the Washington Consensus recommendations can be understood as a landmark in terms of the developmental strategy in Brazil.

In the 1990s, it was already clear that the Brazilian trajectory of structural change was changing. This new trajectory is characterized by premature relative deindustrialization and, more recently the reprimarization of the exports. ³

If manufacturing accounted for about 19.7% in 1980 of gross value added (VA), in 2018 this share fell to 11.3% (GUILHOTO and MORCEIRO, 2019). In addition to the relative deindustrialization process, it is observed a process reconcentration of industrial structure in medium-low and low technological intensive sectors, which went from 51% of the industrial VA in 1990 to 65% in 2016 (CORRÊA, 2019).

Allied to the process of deindustrialization, there is a tendency of reprimarization mainly concerning the exports. Brazil is part of the group of economies that most benefited from the 2000s commodities boom. Production and exports of products such as soybeans, iron ore, petroleum and meat products were heavily boosted. In addition to increasing its relative terms of trade, it was possible to reverse, for a short period (2003-2007), the historical trend of current account deficits. This tendency towards reprimarization materializes itself in the increasing share of primary products in exports over the share of manufactured products. Illustratively, exports of goods not classified as manufactured rose from 18.6% in 1997 to 42.1% in June 2019 (CORRÊA, 2019).

Thus, this trajectory of structural change can be characterized as regressive because it represents a productive specialization rather than productive complexification. To some extent, this trajectory puts Brazil in its “natural vocation” path (PALMA, 2005). In terms of trade, it implies a deepening of the external insertion configured in the international division of labor in which Latin American economies are mainly a provider of raw materials, which is the subordination of center-periphery.

Assuming that in peripheral economies, the economic opening is related to the Washington Consensus recommendations, and associated with financialization,⁴ this paper aims to single out the channels through which financialization contributes to redefining the trajectory of structural change in the peripheral economies, taking as an example of the Brazilian economy.

To achieve this aim, this paper is divided into four sections besides this introduction. Section two discusses the features of peripheral financialization and how it reduces policy space in peripheral

---
³ In the economic literature, the phenomenon of deindustrialization is considered a multifaceted process related to demand and supply forces (RODRIK, 2015; ROWTHORN E RAMASWAMY, 1998). The process of deindustrialization in these economies is understood as premature (UNCTAD, 2003). Deindustrialization can be considered premature when it occurs before the industrialization process has reached the mature stage. In other words, the process of deindustrialization occurs before the industrial sector reaches the same participation in the value added as in the central economies when they went through the same process. As a result, peripheral economies become based on the service sector “without having gone through a proper experience of industrialization (RODRIK, 2015: 3)”.

⁴ According to Painceira (2009) the Brady Plan, in early 1990s, can be considered the beginning of the financial liberalization process in Latin America economies, and of the Brazilian economy in particular.
Section three briefly discusses the concept of structural change within the structuralist theory. Section four discusses the connection between peripheral financialization and the features of the current Brazilian trajectory of structural change through the financialization of non-financial corporations and the financialization dynamics of the determination of the exchange rate and commodity prices, which is associated with the presence of the Dutch disease. The last section will present the final remarks.

2. The peripheral financialization: the importance of international dynamics

Although authors as Marx (1894) and Keynes (1936), just to name two of the most important references in the economic literature from the two last centuries, have insights in their works on the dynamics of finance-dominated economies, the phenomenon of financialization is a product of a given historical period and the prevailing political and social arrangements.

The literature points out that the term financialization is polysemic. Stockhammer (2008: 184), for instance, argues that the term has been used to identify several different phenomena such as institutional changes in the financial system (e.g. deregulation), financial globalization, capital account liberalization, increasing importance in the economic dynamics of the financial sector vis-à-vis the real sector, the emergence, and proliferation of different financial innovations, changes in corporate governance of non-financial firms (shareholder value orientation) and agents behavioral changes.

Thus, given this breadth of meanings embedded in the term financialization, it is necessary to highlight the definition used. In this work, the understanding of financialization goes beyond the increasing importance of the financial sector and actors for economic dynamics (EPSTEIN, 2005: 3). Financialization is understood as changing in the relations among economic agents (families, non-financial companies and government) and the financial sector, and therefore, changing the way economic agents make their choices. This implies dissemination of the practices and behavior characteristics of financial agents to the other agents, as well as the growing dominance of the financial gains. In other words, financialization entails changes in the behavior of agents that impact both microeconomic and macroeconomic levels.

In this sense, the financialization process is neither unique nor uniform, that is to say, it is influenced by historical, institutional and social characteristics of each country (BECKER et al., 2010). Therefore, even if there are characteristics that can be replicated, the financialization can have different traits and different configurations at different times and places. That said, financialization in peripheral economies, the so-called peripheral financialization, differs from the process that occurs
Peripheral economies share domestic and international structural characteristics that reflect their peripheral condition, such as structural heterogeneity, reduced capacity for capital accumulation and a greater external constraint. These characteristics influence the financialization process, in a way that reproduces the patterns of subordination existing in the center-periphery dichotomy.

Peripheral financialization process is driven by a combination of domestic and international factors, however, a key aspect of peripheral financialization is its international dynamics. This aspect is often overlooked in the literature given its irrelevance to the analysis of the financialization of central economies. As pointed out by Bortz and Kaltenbrunner (2018) and Bonizzi et al. (2019), in general when this aspect is analyzed, it is highlighted the direct consequence of financial globalization, that is the increase in capital flows. However, regarding the periphery, this aspect also involves the change in the quality of international flows towards the peripheral countries, the transformations in the relations between domestic agents and the international financial market, and especially the position of these economies in the international monetary-financial system (IMFS).

According to Bortz and Kaltenbrunner (2018), the development and complexification of the peripheral financial markets have made it possible to increase the supply of financial assets (e.g. government bonds, equities, and derivatives) denominated in peripheral currencies to foreign investors. In addition to these assets, the authors (op.cit.:308) argue that the dynamics of the currency market itself stand out, with the increasing importance of carry trade operations. On the other hand, among the transformations in the financial relations between the agents, it is highlighted not only the increasing participation of foreign investors in the peripheral financial markets but also the greater involvement of domestic agents in the global financial market, especially from the non-financial companies (NFCs) and households.

Another important analytical dimension of the international aspect of peripheral financialization is the integration of peripheral economies in the IMFS (KALTENBRUNNER and PAINCEIRA, 2018). The currency hierarchy framework of the post-Bretton Woods era is the reference for analyzing the integration of peripheral economies in the IMFS (BORTZ and KALTENBRUNNER, 2018; KALTENBRUNNER and PAINCEIRA, 2018).

---

5 Another term associated with financialization in the periphery and its specificities is ‘subordinate financialization’ (POWELL, 2013).
6 See for example Rossi (2012).
7 “The hierarchical feature of the international monetary and financial system is not unique to the current system. From the gold standard, there is an international hierarchy of currencies [...] Keynes had already pointed to the existence of a hierarchy of currencies in analyzing the varying degrees of monetary policy autonomy of debtor (England) and creditor (France and United States) economies, between wars - free translated from (PRATES, 2002: 151)”.
8 In the current hierarchical configuration, the dollar is the key-currency and therefore it has a full convertibility. The degree of conversibility is determined by how the currency performs internationally the three typical functions of money: means of payment; a unit of account, and reserve of value (CARNEIRO, 1999; PRATES, 2002). Thus, as the key-currency of the current IMFS configuration, the dollar is the only currency that performs all these functions globally.
In the current hierarchical configuration, the convertible currencies are the ones issued by central countries (central currencies), while non-convertible ones are those issued by peripheral countries (peripheral currencies) (DE CONTI et al. 2014). Because central currencies are characterized by having a higher liquidity premium than peripheral ones, when the degree of uncertainty increases, peripheral currencies are those that primarily suffer from the so-called “flight to quality”, that is agents take refuge in assets denominated in central currencies or the currencies themselves. In this sense, central currencies, particularly the dollar as the key-currency, are the ‘receptacle of uncertainty’ (PRATES, 2005: 274).

Financial integration has transformed peripheral economies into the “emerging markets category”, which implies that these economies absorb in excess capital flows generated, especially in the central economies (PRATES, 2002: 108). This has led to greater instability for these economies as they have been at the mercy of the moods of foreign investors and more exposed to flight to quality. Currency and banking crises in peripheral countries in Asia and Latin America in the 1990s, which were more severe than those previously observed, illustrates the consequences of the process of financial liberalization in these economies.

The subordinate position in the IMFS entails a monetary and financial asymmetry. These asymmetries have a deep impact on long-term decisions in peripheral economies. The monetary asymmetry stems from the currency hierarchy itself, in which the peripheral currencies are not convertibles. In turn, financial asymmetry is related to the international liquidity cycle. During the upward phase of the liquidity cycle, agents’ optimism is reflected in their increased appetite for risk so that they are willing to allocate part of their portfolio to assets with low international liquidity and higher risk. However, when expectations change and the liquidity cycle is reverted, the peripheral currencies and therefore the assets denominated in them are subject to flight to quality despite the macroeconomic fundamentals. These economies can be considered business-cycle takers (OCAMPO, 2003).

The monetary asymmetry implies a macroeconomic asymmetry, which is characterized by a lower degree of macroeconomic policy autonomy. In the traditional Mundell-Fleming model, monetary autonomy is an expected result for a small economy under a floating exchange rate and capital mobility. This conclusion is based on the interest rate parity theory, which can be expressed as \( i = i^* + \epsilon \sigma + \psi \), meaning that \( i \), is equal to the international rate \( (i^*) \), plus the expectation of an

---

9 As Prates (2005: 274) points out, the uncertainty in the current configuration of IMFS is considered structurally higher and more volatile due to the instability of the IMFS following the collapse of Bretton Woods agreement and the speculative rationale of financial globalization.

10 Rey (2015: 1), in an influential paper based on empirical evidence, concluded that periperal economies without currency convertibility are more sensitive to the global cycle, because “whenever capital is freely mobile, the global financial cycle constrains national monetary policies regardless of the exchange rate regime.”
exchange rate devaluation ($e^c$) and the country risk premium ($\psi$). Any difference between $i$ and $i^*$ implies variation in $e^c$ or in the country risk. Thus, the interest rate parity equation establishes a relationship between monetary policy and the international capital market, and, as long as the monetary authority is willing to let the exchange rate bear the burden of the adjustment, the monetary policy will keep its autonomy.

De Conti et al (2014) argue that the subordinate position of peripheral economies implies that monetary policy autonomy is reduced because interest rate might be used to mitigate exchange rate volatility, which is a result of the pro-cyclical dynamics of capital flows to the periphery.\textsuperscript{11} Indeed, the autonomy to set the interest rate to control aggregate demand is constrained because monetary authority may be prone to accommodate changes in the direction of capital flows using the interest rate differential. If, for instance, a high instability in the foreign exchange market is observed, the threat of a devaluation puts pressure on the domestic interest rate to keep domestic assets attractive. Therefore, an appreciation of the exchange rate is expected. The systematic increase in the interest rate differential, because of the increase in the domestic interest rate, represents an additional incentive to sustain the excessive flow of capital to the financing of the current account. Thus, under unstable expectations concerning the behavior of the exchange rate, the expectation of exchange rate appreciation should be added to the yields obtained from the interest rate differential.\textsuperscript{12}

Hence, as a result of the current configuration of the IMF, and also the very existence of a currency hierarchy, peripheral economies have a structurally higher level of interest rates than central economies and faces an overvalued real exchange rate tendency together with higher volatility.

The reduction in the degree of policy autonomy is also expressed in the imposition of government discipline in the peripheral economies. That is, when policies or political candidates are perceived as unfavorable to the interests of financial agents, financial markets signal their discontent and press for favorable changes to their interests (OCAMPO et al., 2008:27-28).\textsuperscript{13}

\textsuperscript{11} Câmara Neto and Vernengo (2002: 11) make the point that a higher interest rate, aiming to avoid capital flight, will lead to higher interest payments on the public debt and consequently, higher nominal deficits. The authors argue that when the public debt is indexed to the short-term interest rate, the monetary policy translates into high debt servicing. This process has an important distributive effect since debt holders are among the richest people, and are those that benefit from higher interest rates paid on public debt.

\textsuperscript{12} Another feasible assumption is that in the context of rising inflationary expectations, monetary authority raises interest rates, which has the effect to attract capital. As a consequence, exchange rates will appreciate and inflationary pressures will cool off. If the economy adopts inflation targeting, then monetary authority will be more willing to tolerate the trend towards an exchange rate appreciation, keeping the interest rate differential positive, since an appreciated exchange rate avoids the inflationary effect that a decrease in the domestic value would have on inflation (KREGEL, 1999).

\textsuperscript{13} Government discipline can also be seen through fiscal policy, which tend to be pro-cyclical. Because peripheral economies are prone to foreign capital shortages during the downturns and excess of foreign capital during the upswings, public spending tends to increase when access to external financing is readily available, and it decreases when external finance is scarce (OCAMPO and VOS, 2008:46). Furthermore, during the downswing, the burden of interest payments on public debt will increase, which combined with a downward pressure on public-sector revenues, will trigger a procyclical cut in primary spending, in order to keep a stable debt-to-GDP ratio (OCAMPO, 2003).
A direct impact of the subordinate position in the IMFS is in the accumulation of foreign reserves. This has become a common practice for peripheral economies, especially after the series of currency and banking crises that occurred during the second half of the 1990s. Carvalho (2009) shows that the accumulation of reserves works as a liquidity cushion to protect economies against adverse short-term changes in the balance of payments and allows for the accommodation of sudden demands for foreign currency. According to the author, the accumulated reserves can give some ‘breath’ for economic authorities to try to avoid the worst consequences of a sudden stop, and therefore it helps to widen policy space. However, regardless of the strategic importance of the accumulation of large volumes of foreign reserves for peripheral economies, in most cases, the accumulation of reserves is not a choice, but a consequence of currency hierarchy. The accumulation of high levels of reserves in a volatile environment of capital flows is an important instrument, though far from a sufficient one, to counterbalance the uncertainty surrounding the behavior of the capital account in developing economies financially integrated.  

This policy is also related to the phenomenon of subordinated financialization, especially when it is associated with the inflation-targeting framework. Kaltenbrunner and Panceira (2018) use the example of the Brazilian economy to illustrate this connection. Given the institutional framework of the inflation targeting regime, the Brazilian Central Bank conducts sterilization operations to control the inflationary effects of the purchase of foreign currencies. The sterilization operations with public securities with repurchase commitment (repos), are interest-bearing and have high liquidity. The holding of public securities in the balance sheet of the banking system increases the level of confidence in these institutions, which induces the use of these securities as collateral for issuing new liabilities. Given the characteristics of repurchase agreements, these new issues would be mostly short-term, mainly credit operations for households. That is, according to the authors, the reserve accumulation policy-induced changes in the structure and behavior of the Brazilian banking system boosting and deepening financialization in its domestic aspect.

In a nutshell, the external/international dynamic is a defining feature of peripheral financialization. In respect to this aspect, the current currency hierarchy plays a key-role, after all it entails monetary, financial and macroeconomic asymmetry to the peripheral economies. Therefore, the subordination pattern at the capitalist system reproduced itself at the IMFS, which also contributes for a financialization process by the subordination.

---

14Salama (2009) demonstrates that there has been an improvement in traditional external vulnerability indices (different balance of payments lines), while there has been an increase in fragility indices (the exchange rate and export structure). The latter represents the fragility of growth regimes supported by the liberalizing measures of the Washington Consensus (op.cit; 34).
3. The center-periphery dichotomy in development economy: the structuralist theory

The center-periphery dichotomy in the international financial market reflects the well-established center-periphery dichotomy present in the capitalist system identified by the Latin American structuralist literature on development economics (PRATES, 2002:151).

For Latin American structuralism, the primary evidence of persistent international inequalities can be found comparing commodity-producing economies with industrialized ones. Prebisch, as well as Celso Furtado later on, had observed that productivity was substantially higher in the industrial sector than in primary activities. Therefore, the dichotomy between central and peripheral economies expressed the difference in productivity levels of mature productive structures (central economies) and immature productive structures (peripheral economies). The persistence of the central-periphery dichotomy comes from the driving forces explaining their dynamics. While in central economies, growth is driven by technical progress, in peripheral economies, it is predominantly determined by external demand for exports, especially commodity sector goods. In this context, the heterogeneity of the productive structures is at the core of the explanation for the unequal development among the economies.

The structuralist center-periphery interrelation implies that the divergence in growth rates between central and periphery is intrinsic to the development process. Rodríguez (2009:84), identifies two dynamic characteristics of this dichotomy. First, the differences in structures between center and periphery renew themselves over time, they widen and become more complex. That is, the dichotomy between the productive structures remains. On the other hand, this inequality is a result of differentials in the average income of the employed population, which increases at a slower rate in the periphery. This latter characteristic is also a consequence of the configuration of the productive structure in the periphery (RODRÍGUEZ, 2009: 85).

In structuralist literature, industrialization is perceived as the strategy that enables these economies to break free from the peripheral condition. Therefore, the concept of structural change,

---

15 Within the broad spectrum of the periphery, there are plausible differences between the characteristics of these economies and their articulation with the central economies. For example, Asian economies today have a higher diversification of the productive structure and a differentiated external insertion than the rest of the (semi)peripheral economies.

16 For more details on center-periphery dichotomy within the ECLAC’s perspective see, for example, Rodríguez (2009).

17 The manufacturing sector is considered the key sector for structural change. Following the Kaldorian approach, the importance of the industrial sector lies in its special properties in relation to the other sectors. Firstly, in the manufacturing sector, increasing returns to scale are more intensely, which corroborates the more intense growth in aggregate productivity. On the other hand, Kaldor states that there is a strong positive relationship between industry growth rates and aggregate output growth rates. Thus, there is a cumulative causation between the productivity growth rate and the production growth rate, that is, the increase in production would generate an increase in labor productivity in sectors characterized by economies of dynamic scales. Thus, the manufacturing sector is the most dynamic sector, responsible for the creation and diffusion of innovations in products and processes. In short, this sector is considered the “engine of growth” (KALDOR, 1966).
which encompasses both the diversification of the productive structure and the reduction of the existing technological gap between the center and the periphery, is seen as a fundamental step to boost development. Hence, the qualitative transformation in the productive structure should be the focus of a growth strategy (ECLAC, 2014: 17).

In this perspective, the growth trajectory of peripheral economies is to a large extent determined by their capacity to promote a structural change towards medium and high technological intensity activities, given their higher productivity and capacity to generate and absorb technical progress and innovation. In doing so, they would be in a positive growth trajectory, in other words, a trajectory of catching up with central economies.

4. The transmission mechanisms of financialization to structural change

The current challenge for peripheral economies is how to promote change in the productive structure, given that the dynamics of a financialized economy impose barriers to this process at the macroeconomic, microeconomic and institutional levels. Therefore, peripheral financialization directly affects the trajectory of structural change through its impacts on the productive sphere.

In this section, the channels through which peripheral financialization affects structural change will be discussed. These channels are the financialization of non-financial corporations (NFCs) and the financialization dynamics of the determination of the exchange rate and commodity prices, which is associated with the presence of the Dutch disease.

I. Financialization of non-financial corporations in peripheral economies

The process of financialization implies the dissemination of the logic, practice, and behavior of financial agents to other economic agents, as well as the growing dominance of financial gains. Thus, the financialization of NFCs manifests itself both through corporate management aimed to create and maximize the shareholder value, as well the greater engagement of NFCs in financial operations, which increases their financial revenues vis-à-vis their operating ones. Both manifestations affect the investment allocation decision of NFCs, as they impose a corporate strategy anchored in short-termism management.

The transformations in corporate governance are one of the main causes pointed out in financialization literature to explain the NFCs’ behavior change towards capital accumulation (HEIN, 2012; ORHANGAZI, 2008; STOCKHAMMER, 2004). This change in behavior was influenced by transformations in the shareholder composition, particularly the increased participation of
institutional investors, which is a result of the financial deregulation and globalization process (BONIZZI, 2017; CROTTY, 2005; LAZONICK and O’SULLIVAN, 2000).

The change in the composition of the shareholders contributed to the increased influence of the financial system on the management of NFCs, leading to a greater shareholder power vis-à-vis executives within the management of NFCs, which favored the transformation of the firm's behavior into a broad sense: both in corporate governance and in the objectives pursued by companies (STOCKHAMMER, 2004).

Brazilian privatization was boosted in the 1990s with the neoliberal agenda implementation. The privatization was coupled with a denationalization process that led to the greater participation of foreign investors, which influenced the dissemination of shareholder value-based corporate management mechanisms that were already practiced at headquarters in central economies (TORIJA ZANE and GOTT SCHALK, 2018).

The greater influence of shareholders in corporate governance is manifested in increase commitment to maximizing the shareholder value. To some extent, this greater commitment is made possible through the imposition of restrictions on managers' actions and by co-opting them through compensation schemes. Examples of such restrictive measures include the increasing share of companies' internal financing resources used to pay dividends and buys back shares (HEIN, 2012; ORHANGAZI, 2008). In this way, firms’ funds for real investments are drained for other purposes, a factor that impacts capital accumulation, especially in peripheral economies given the restrictions on NFCs' access to credit markets.

In the case of Brazil, the creation of a new stock market segment named “Novo Mercado” in 2000 consolidates the financialization logic from the firms' perspective. Companies that are part of this segment must commit to following a specific corporate practice that goes back to the Anglo-Saxon financialized corporate management model. 18 These companies are obligated to adopt a set of corporate rules that extend shareholder rights, as well as the disclosure of policies and the existence of supervisory and control structures. 19 To get an idea of the representativeness of the “Novo Mercado”, from the 410 companies that made up the entire stock market, 140 participated in it (33.6%). Adding up the companies operating in the two other stock market segments which also have guidelines of shareholder transparency measures (N1 and N2), the number of companies reaches 44.3%. 20

The peripheral economies' peculiar attributes, such as business concentration and the predominance of non-voting shares, especially in the Brazilian case, lead to the predominance of property structures characteristic of closed companies. Therefore, management is considered closed, so the main interaction occurs between the majority and minority shareholders. An interesting point to be emphasized is that even with the predominance of property structures characteristic of closed companies, attributes raised in this section that are specific to shareholder value can be observed in NFCs (in different types of intensities), such as the increase in the payment of dividends, the reduction in investment (both concerning net revenues) and the increase in financial assets in the portfolio of NFCs (TORIJA ZANE and GOTTSCHALK, 2018).

In the same sense, the econometric exercise realized by Dourado (2019) shows that from 1995 to 2018, especially after 2011, Brazilian NFCs’ have presented features of financialization. From 2012 is possible to see more clearly the deepening of the shareholder maximization corporate strategy, marked by the increase in dividend distribution and the growing importance of financial income. Both results had negative impacts on investment. Therefore, Brazilian NFCs behavior is quite similar to the Anglo-Saxon financialization pattern.

As noted earlier, in peripheral economies, the nominal and real interest rates are structurally higher than the central economies (current IMFS structure). Consequently, the minimum yield requirements for physical assets investments are relatively higher in these economies. Due to the financialization, to this structural feature is added the imposition of new profitability requirements for the NFCs by the shareholder, establishing a too high floor for the rate of return in physical investment. These new requirements contribute to a greater selectivity of investment projects, which also contributes to the reduction of real investment by NFCs.21

The firms’ financialization contributes to the growing shrink of internal sources of finance, as a consequence a growing part of the investment is financed by external sources. Therefore, the NFCs’ burgeoning level of indebtedness is a feature of financialization (KARWOWSKI and STOCKHAMMER, 2017). The investment financing pattern of Brazilian NFCs had a transformation after 1990, in which the self-financing had lost space to the external sources, especially to credit, this tendency was boosted in the 2000s’ (CORRÊA et al., 2017). This transformation was followed closely by the growing participation of foreign credit, which represented 46,3% of the total credit of listed companies excluding Petrobras in 2016, including Petrobras it reaches 60%. The reversal of the economic cycle contributed to a growing number of firms to present a Ponzi profile (MINsky, 1992), which reached 49% in 2015 (op.cit.: 1142).

21 It should be mention that the greater engagement in financial activities (CROTTY, 2005) by NFCs is a result of the financialization process itself, as it promotes an increase in the supply of assets and profit opportunities in the global financial market. These assets tend to negatively impact the investment decision of NFCs as financial assets are considered substitute assets for real assets.
Therefore, the NFCs’ corporate strategy anchored in short-termism stimulates investments in financial assets in detriment of investments in real assets. This leads to a change in the firms’ revenues composition, hence financial revenues would increase \textit{vis-à-vis} operating revenues. This set of transformations affects the NFCs’ investment decisions in capital accumulation. This can be illustrated by observing the relationship between profit and real investment.

For Brazil, there is a downward trend in the profit and investment ratio: the average of this ratio went from 56.5\% between 1995-2002 to 22.5\% between 2012-2015 (TORIJA ZANE and GOTTSCHALK, 2018: 216). Caffe and Bruno (2011: 51) demonstrated that after the 1990s the productive physical capital accumulation rate had a general decline tendency \textit{pari passu} a growing tendency for the macroeconomic financialization rate calculated by the authors. These results show the increasing divorce between the dynamics of profits and physical assets investments.

The financialization occurs in a context where the role is contested. In this sense, under the motto of the “minimum state”, the legitimacy of state activity is under continuous attack, which affects the public investment.\footnote{This realignment was accompanied by important changes in the conduct of economic policy, such as the adoption of inflationary control as the priority goal. For Brazil, this movement is crystallized with the adoption of the so-called “macroeconomic tripod” (floating exchange rate regime, inflation targeting regime and primary surplus targets) after the 1999 currency crisis. Another facet of reducing the discretionary fiscal space is the high weight of public debt interest payments in the public budget. This also turns out to be an aspect of financialization, in which the gains of the financial sector are placed ahead of the demands of other sectors on the government agenda.} Less stimulus at the company level to invest in physical assets, on one hand, and less public investment, on the other, end up reducing the investment rate\footnote{Indeed, Brazil’s gross fixed capital formation rate as a percentage of GDP increased from 23.6\% in 1980 to 15.8\% in 2018 (IPEADATA, 2019).} and this affects the economic growth via the multiplier effect.

As well established in the development literature, investment in capital formation is essential for the process of structural change and long-term economic growth because it embodies technical progress and increases aggregate productivity. Thus, the investment rate downward trend in the context of financialized economies entails a barrier to the process of a positive structural change. The reduction of investments in capital formation considered profitable in the manufacturing sector contributes to the phenomenon of relative deindustrialization.

\section*{II. The financialization of the determination of the commodity prices, the exchange rate and the financialized Dutch disease}

The export’s reprimarization trend reflects the increase in the share of commodities products, whether or not processed, in exports at the expense of the share of products in other sectors. This
trend may result in a transformation of the productive structure itself, following the Dutch disease narrative.

Part of the Brazilian export reprimarization is connected with commodity prices boom. Both nominal and real commodity prices increased in the first two decades of the new millennium (CARRERA, 2018).

The commodity price formation is typically associated with demand and supply fundamentals, in addition to other geopolitical and political factors especially in the case of oil. However, to understand the dynamics of commodity price formation in entirety, and consequently the price boom dynamics, it is necessary to include the financial determinants (BAFFES and HANIOTIS, 2010; CHENG and XIONG, 2013; GHOSH et al., 2012; MAYER, 2009). Within this determinant, the growing financialization of commodity price dynamics stands out.24

The commodities market financialization is a phenomenon that permeates the transformations in the regulation, as well as changes in the microstructure of this market, the latter is characterized mainly by the entry of financial investors and the creation of different instruments and investments linked to commodities (CARRERA, 2018). The epicenter of commodities market financialization analysis is the derivatives market.

One characteristic of the commodities market financialization process is the entry of financial investors in this market. Carrera, (2018: 238) points out that the classic narrative establishes that financial agents were seduced by empirical and historical evidence which indicated that commodity contracts had the same average profitability as stocks, with the specificity of their returns being less volatile. Besides, commodity contract returns have a negative covariance with stock returns, so these contracts are perceived as a good option for portfolio diversification (BAFFES and HANIOTIS, 2010).

Thus, financial investors aiming the diversification and profitability of their portfolios incorporated commodity contracts in their range of options, taking positions in commodities considering the risk-return binomial. That is, commodity contracts become a class of financial assets similar to stocks and bonds.

Financial investors in the commodities market have different profiles. Mayer (2009) classifies them into two categories: money managers and index traders. These investors are distinguished not only in their motivations but in their investment strategy and portfolio position.

The first class of investors, money managers, roughly represents traders, consultants, and fund operators. In general, these investors have a relatively short-term investment horizon that is associated

---

24 In the commodity price boom, concerning the fundamentals, the emphasis is on supply-side pressures. In relation to agricultural commodities, it is emphasized in the literature (BAFFES and HANIOTIS, 2010; GHOSH et al., 2012) the effect of policies to encourage the production and consumption of biofuels implemented in some countries, as well as the rising prices of fertilizers and other commodities, mainly oil, used in the production process.
with a strategy of taking positions on both sides of the market, which guarantees gains in both the upward and downward market phases. More recently, the participation of these investors is partially explained by the profitability of the future commodities market itself, which provides a speculative bias to their action (MAYER, 2009: 4).

The novelty in the commodities market pointed out by the literature are the index traders (BAFFES and HANIOTIS, 2010; CHENG and XIONG, 2013; MAYER, 2009) which are related to the constitution of funds indexed to the commodities’ indices, mainly the Dow Jones-AIG and S&P Goldman Sachs Commodity Index. These investors make swaps with financial entities (mainly banks) from which they buy parts linked to commodity indices. In turn, these institutions hedge investors' exposure through the purchase of commodity futures contracts (MAYER, 2009: 5). The operating dynamics of these funds is to buy future positions that will be sold close to their maturity, which in turn generates revenue for the purchase of new future positions and so on.

From the exposure made so far, it is evident the importance of the role of commodity futures markets for the financialization process. It should be noted that the commodities derivatives market has existed at least since the 19th century\(^{25}\), thus the existence itself of this market is not the reason for the financialization. In turn, the futures market contributes to economic dynamics is noted, especially through its role in assisting management and transferring risks (hedge) and its role in price discovery.

The price dynamics and price discovery process was affected by the increasing speculation in commodity futures markets, which drove prices above the supply and demand fundamental equilibrium, as well as leading to speculative bubbles (GHOSH, et al., 2012; MAYER, 2009).

As pointed out by Mayer (2009) there are differences between the speculation of the ‘traditional speculator’ in commodity markets and the financial investors. Usually, this traditional speculator has been the counterparties of producers and consumers of the physical commodities (hedge). They trade a small range of commodities, those that they have more in-depth information of the market, so traditional speculator expectation on prices reacts to changes in the current fundamentals and forecast of future market conditions. Thus, in this type of speculation, the signals from financial markets are not transmitted to commodity markets.

The increasing speculation in the commodity futures market entails price movements partially independent of supply and demand fundamentals. These movements affect the dynamics of spot market prices, both through impacts on price discovery mechanism and inventories formation and fluctuation (CHENG and XIONG, 2013; GHOSH et al., 2012).

\(^{25}\)The Chicago Board of Trade (CBOT) was created in 1848.
At the same time, increased liquidity in commodity futures markets, a variable considered essential for the market efficiency, did not result in price stabilization within its fundamentals as expected. On the contrary, it corroborated to increase in the level and volatility of spot price, as well as the expansion of speculation (GHOSH et al., 2012). This result is related to the concentration of a significant part of the contracts in a few investors, which means that changes in their positions corroborated to price movements (GHOSH, et al., 2012; MAYER, 2009).

Thus, the commodity price boom had its roots in the increasing financialization of the commodity futures market. The increase in prices led to an increase in profitability for the commodity-producing sectors, which boosted the process of reprimarization of Brazilian exports. This process is also related to the Dutch disease process.

The classic definition of Dutch disease is established by Corden and Neary (1982: 825): "the coexistence within the traded goods sector of progressing and declining, or booming and lagging, sub-sectors". In general, Dutch disease is associated with a change in the composition of an economy’s productive structure, in which the boom is undergoing the natural resources based sector, while the declining sector is the industrial one. The boom may be caused by the discovery of new reserves of natural resources, by technological shocks or by changes in the trajectory of the price. These factors induce the shift of production factors to the natural resources sector.

For the new-developmentalism approach, the Dutch disease is considered a market failure and a competitive disadvantage that entails a cyclical long-lasting overvaluation trend of the real exchange rate (BRESSER-PEREIRA et al., 2016). The dynamics of the overvaluation of the exchange rate would be linked to the Ricardian rents earned in the primary sectors. Therefore, as long as the profitability of the commodity sector is sustained, the exchange rate will continue overvalued. According to the new-developmentalism, this can take years. Only when the current account deteriorates, for any reason, then the balance of payment crisis will force the currency to devaluate. The cyclical character of the overvaluation process of the exchange rate is because the overshooting that follows the balance of payment crisis will give start to the valuation process again, once the Dutch disease is not neutralized.  

The overvaluation trend of the exchange rate is one of the causes for Brazilian deindustrialization pointed out by the literature (CORRÊA, 2019). A sustained overvalued exchange rate,

---

26 The Brazilian currency, Real, was overvalued for almost two decades, except for specific periods of overshooting, such as the post-election of Luiz Inácio Lula da Silva (2002) and the post-financial crisis (2007). During much of the 1990s the Real underwent an artificial valuation due to the use of the exchange rate anchor regime that aimed to reduce the inflationary pressure by reducing the costs of imported goods. This regime was officially abandoned in 1999, when the macroeconomic tripod was implemented. The Brazilian floating exchange rate regime is the so called ‘dirty’ regime, so the Central Bank of Brazil is constantly operating in the market to avoid excessive volatility, because of the damaging impact of the pass through effect to inflation. In other words, the Central Bank of Brazil continued to maintain the artificial exchange rate valuation, together with the maintenance of high interest rates, to mitigate the inflationary effects.
rate negatively impacts domestic manufactured price competitiveness, which is expressed in the relatively higher unit labor cost. Ceteris paribus the loss of competitiveness affects negatively the exports of manufactured goods and, consequently, the profitability of this sector. From this perspective, the loss of competitiveness and lower profitability of the domestic manufacturing sector would induce a change in the productive structure in favor of a more competitive sector, in the case of Brazil distinctively the commodity and non-tradable sectors. That is, a continuous real exchange rate overvaluation trend negatively affects investment decisions in the manufacturing sector, leading to deindustrialization.

The real exchange rate overvaluation trend also stems from the increase in capital inflows caused by the commodities boom. This increase occurs both through the boost in exports and the inflow of long-term and short-term capital. In this sense, Botta et al (2016) underline the financialized nature of Dutch disease. The authors note that the exchange rate overvaluation trend observed in the Colombian economy was linked to the financial account surplus. Thus, the authors linked the Dutch disease to foreign direct investment (FDI) and portfolio investments. They concluded that the dynamics of the commodity prices influenced the capital flows dynamics to commodity-producing countries, both in short-term capital and in FDIs, which end up affecting the exchange rate dynamics of these economies contributing to the overvaluation, and consequently to the deindustrialization.

The FDIs concentration on the commodity sector and non-tradable represent an obstacle to structural change towards a more technologically sophisticated sector, to the extent that it may create the conditions for Dutch disease, and therefore intensifying the dependency on commodities industries (BOTTA, 2017: 460). Moreover, the FDIs are also a source of external vulnerability, as they represent an increase in external liabilities and potential outflows (profits sent abroad).

The data from the Brazilian Central Bank for FDIs by sector and industries starts in 2001, due to methodological changes it is not possible to compare activities across the range of the series. Based on the data, we can establish the concentration of FDIs in the commodities sectors (agriculture, livestock, and mining), especially those related to oil exploration. Between 2001 and 2018, FDIs aimed to the commodities sector more than quadruplicate, while the total of FDIs almost doubled. If we analyze only the period with the greatest acceleration in commodity prices (2001-2011), the FDIs to the commodities sector almost sixfold, against a 2.3-fold in the total of FDIs. Among the activities, stood out the performance of the oil and natural gas extraction industry, which between 2006-2018 more than eightfold.

Therefore the production internationalization movement to the periphery is deeply linked to deindustrialization, because financial integration, which is in the heart of the explanation of peripheral

27 The IMF All Commodity Price Index grew 303% between December 2001 and April 2011.
financialization, implies that the only sectors that become profitable to attract foreign or domestic private investment are the ones where the peripheral country has ‘natural vocation’.

The real exchange rate misalignment is also explained by the financialization process of exchange rates, which is characterized by the subordination of exchange rate dynamics to equity decisions of international financial investors (ROSSI, 2012: 22). This subordination can be seen through several episodes of exchange rate crisis when there was a divorce between the trajectory of the real exchange rate of a peripheral economy and its macroeconomic fundamentals. So, in a financially integrated world, financial globalization exacerbates the peripheral currency characteristic of a highly liquid financial asset.

There is a peculiarity on the formation of the Brazilian exchange rate concerning the central economies: prices are formed mostly in the exchange derivatives market than transmitted to the spot market (VENTURA and GARCIA, 2012; BANCO CENTRAL DO BRASIL, 2019). In other words, the incorporation of new information, the so-called price discovery process, occurs primarily in the futures price contracts traded on the national stock exchange and is subsequently transmitted to the spot market prices. In turn, in general, the determination of the exchange rate price in central economies occurs in the opposite way (BANCO CENTRAL DO BRASIL, 2019).

This peculiarity is related to two factors, the size of the Brazilian currency derivatives market concerning the spot market, as liquidity is an important feature to price discovery process, and regulatory measures

One mechanism that contributed to the exchange rate dynamics in the peripheral economies is the carry trade. Carry trade can be defined as an inter-currency financial strategy in which the liability position is built in a low-interest rate currency (central currencies) and the asset position is built in a high-interest rate currency (peripheral currencies) (ROSSI, 2012: 30).

There are two types of carry trade: the ‘canonical carry trade’ and the ‘derivate carry trade’ (GAGNON and CHABOUD, 2007). The first is characterized by funding in the low-interest currencies and investing in the assets in high-interest currencies. The second type of carry trade is characterized by taking leverage positions on currencies derivatives markets (forwards and futures contracts). In other words, this last strategy comes down to taking a short position in low-interest currencies and long position high-interest currencies on currencies derivatives markets.

Given the dynamic of the Brazilian currency market, the carry trade is an important feature to understand this dynamic. Foremost, carry trade is one of the main transmission mechanisms of the

---

28 “In fact, Granger's causality tests between the exchange rate price in the futures market and the spot market in Brazil show that, most of the time, the price forms in the futures market and is then passed on to the market in cash (BANCO CENTRAL DO BRASIL, 2019: 3)”. For more details see (VENTURA and GARCIA, 2012)

29 The participation in the spot market is restricted to banking and specialized brokerage institutions that have authorization from the National Monetary Council.
international liquidity cycle for exchange rate dynamics (ROSSI, 2012: 25). In the international liquidity cycle upward phase the agents are attracted by the interest rate differential to adopt carry trade operations as a financial strategy. Therefore, the carry trade operations contribute to the overvaluation trend of peripheral currencies. When the international liquidity cycle is reversed, the preference for liquidity increases, causing the exchange rates devaluation of the peripheral currencies that are the target of carry trade operations. Thus, carry trade operations create overvaluation biases on peripheral currencies in the upward phase of the international liquidity cycle and devaluation of these currencies when the cycle reverses.

Rossi (2012) calls attention to the difference in the way these two movements occur. While the exchange rate appreciation movement develops gradually driven by the agents' optimism and confidence, the devaluation movement occurs abruptly causing an exchange rate overshooting. This change is guided by the sudden frustration of the agents' expectations and the rapid dismantling of their positions.

The carry trade operation is different from arbitrage, which is motivated by the interest rate differential between the two currencies. The carry trade is a speculative operation that depends on the exchange rate dynamics, which the investor does not know ex-ante. The speculator expects that the exchange rate will continue to overvalue, and so he/she can realize the expected profits benefitting from the higher interest rate and converting the gains at an overvalued exchange rate. Therefore, the speculative feature of carry trade operation influences the future market dynamics, which in turn affect the spot market.

In a nutshell, the financialization process impacted the current Brazilian trajectory of structural change through the financialization of non-financial corporations (NFCs), which affected the investment decision, the financialization of the exchange rate and commodity prices determination, both affected the decision to allocate resources between the sectors and the viability of the manufacturing sector being competitive, which adds to the financial aspect of the Dutch disease itself.

6. Final remarks

This paper aimed to present the connections between the current Brazilian trajectory of structural change and the phenomenon of peripheral financialization.

Financialization on the periphery of capitalism has different characteristics and drivers from those observed in central economies. One of these characteristics is the importance of the international dimension. Peripheral financialization is related to the process of economic liberalization, which in the case of Brazil is closely associated with the implementation of the Washington Consensus agenda. This dimension is translated into a subordinate position in the IMF for peripheral economies, the
resulting asymmetries of this position inflict a loss of economic policy autonomy. In short, the peripheral condition in the capitalist system implies a financialization process also characterized by subordination.

For a peripheral economy, a progressive structural change means breaking with the pattern of productive specialization: a more diversified productive structure with greater incorporation of technical progress. Historically, this is crystallized in the relative increase of the weight of the manufacturing sectors in the productive structure, especially the medium and high technological intensity industries. However, the current trajectory of structural change observed in Brazil is primarily characterized by its regressive character, having as its main features the relative deindustrialization and export ‘reprimarization.

The connection between regressive structural change and peripheral financialization is established both through the deepening of the financialization of NFCs, as well as through the financialization of exchange rate and commodity price determination. In turn, the Dutch disease itself is also associated with peripheral financialization, as it is connected to the dynamics and pattern of capital flow and contributes directly to the trend of overvaluation of the exchange rate.

The implementation of the neoliberal agenda is the main responsible for the financialization process of peripheric economies. This implementation changed the pillars of the development strategy based on import-substitution and is keeping behind most of the Latin American economies. Therefore, within the current configuration of the international economy, characterized by the phenomenon of financial integration and production internationalization, the inequality of the development process between the center and periphery has been accentuated. In other words, the differences in structures between these poles have renewed themselves and become more complex. As a consequence, this current trajectory of structural change puts Brazil in its “natural vocation” path.

References


BANCO CENTRAL DO BRASIL. O mercado de câmbio brasileiro e o desenvolvimento do mercado de derivativos cambiais. Brasília: Estudos especiais do Banco Central, n. 41.

BECKER, J. et al. Peripheral Financialization and Vulnerability to Crisis: A Regulationist


CORRÊA, M. F. Deindustrialization and reprimarization: the Brazilian current trajectory of structural change IN International Conference on Economic Theory and Policy, Meiji University, Tokyo, 15-17 September 2019.


GUILHOTO, JOAQUIM JOSÉ MARTINS; MORCEIRO, P. C. Desindustrialização setorial e estagnação de longo prazo da manufatura brasileira. São Paulo:TD NEREUS, n. 01, 2019.


KARWOWSKI, E.; STOCKHAMMER, E. Financialisation in emerging economies: a systematic overview and comparison with Anglo-Saxon economies. Economic and Political


