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STAGNATION OF THE BRAZILIAN ECONOMY AND PERIPHERAL FINANCIALIZATION*

ABSTRACT

This paper argues that peripheral financialization is tied to opening the developing economies' capital and financial accounts. In the case of the Brazilian economy, the long-term result of economic integration in a hierarchical international monetary and financial system is the increasing decoupling of financial investments on one hand and domestic capital formation. This implies that the economy is stagnant, and the manufacturing sector reduced its weight in total value added. Consequently, the Brazilian economy lost complexity and specialized in commodity exports. We analyze the evolution of the Brazilian economy since the 2000s through the financial balances of the economy's institutional sectors. We showed that the Brazilian economy was in an expansionary phase in the 2000s due to the excellent performance of the External sector. Policy space could be widened, and real interest rates, although very high, steadily declined. However, exchange rate misalignment and its overvaluation trend are a by-product of the financial integration of a peripheral economy, which largely explains Brazilian deindustrialization. The international financial crisis interrupted the expansive phase, and the 2010s was a period of economic reversion. We conclude that the reduced policy space due to financial integration, the greater vulnerability to external shocks, and the regression in the productive structure seem to head the economy to another lost decade.

Keywords: Peripheral Financialization; Brazilian Economy; Deindustrialization

JEL:Classification: E44; O11; O23

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RIASSUNTO

Stagnazione dell'economia brasiliana e finanziarizzazione dei paesi periferici

Questo studio mostra che la finanziarizzazione dei paesi periferici dipende dal grado di apertura dei mercati finanziari di queste economie. Nel caso dell'economia brasiliana, il risultato di lungo periodo dell'integrazione economica nel sistema monetario e finanziario internazionale è lo scostamento crescente tra investimenti finanziari e formazione di capitale interno. Ciò implica una stagnazione economica ed una riduzione del peso del settore manifatturiero sul totale del valore aggiunto. In conseguenza di questo, l'economia brasiliana ha visto ridursi la sua complessità e si è specializzata nelle esportazioni di materie prime. Analizzando l'evoluzione dell'economia brasiliana dagli anni 2000 tramite i bilanci finanziari dei settori economici istituzionali, abbiamo dimostrato che l'economia brasiliana era in espansione negli anni 2000 grazie all'eccellente andamento dell'import/export. La gamma delle scelte di policy si ampliò e i tassi di interesse, benché molto alti, scesero costantemente. Tuttavia, il disallineamento del tasso di cambio, in particolare la sua tendenza ad essere sopravvalutato come effetto collaterale dell'integrazione finanziaria di un'economia periferica, spiega in gran parte la deindustrializzazione del Brasile. La crisi finanziaria internazionale ha interrotto la fase espansiva e gli anni '10 sono stati un periodo di recessione economica. Concludiamo che il ridotto spazio di manovra causato dall'integrazione finanziaria, l'accresciuta vulnerabilità agli shock esterni e l'involuzione della struttura produttiva sembrano per l'economia la premessa per un altro decennio perduto.

1. STAGNATION OF THE BRAZILIAN ECONOMY AND PERIPHERAL FINANCIALIZATION

The Brazilian economy, once one of the most dynamic economies in the world, lost its dynamism in the 1980s. From 1961 to 1980, *per capita* income grew 4.6% p.y., well above the 2.5% p.y. of the world average¹. From 1981 to 2022, Brazil's *per capita* income rose 0.8% p.y., half of the rate of 1.5% p.y. of the world economy. The slowdown of the Brazilian economy in the last four decades can largely be explained by the deindustrialization process, which is one of the most severe in

¹ Based on the import-substitution strategy, the structural change observed in this period was characterized by a progressive or positive trajectory in the sense that the Brazilian productive structure was coming closer to the central economies.

the world². Our interpretation is that the accelerated process of deindustrialization is deeply connected with the financialization process of the Brazilian economy that accelerated after the economic opening in mid-1990s.

Financialization on the periphery of capitalism has different characteristics and drivers than those observed in central economies, and the main distinctive feature is the importance of the international dimension in explaining financialization. This dimension is characterized by the subordinate position of peripheral economies in the international monetary and financial system, which restricts their policy space on the one hand and makes them more vulnerable to external financial and trade shocks, on the other. The Brazilian economy is an example of a peripheral economy, financially integrated in an asymmetrical monetary and financial world, that has lost its capacity to implement pro-developmental policies and advance industrialization to catch up with developed economies³.

In order to develop our argument we shall first identify the main channels through which the financialization process advances in peripheral economies. In this sense we contribute to the understanding of how the dissemination of practices and behavioral characteristics of international financial markets has repercussions on the decision-making process for productive investment in developing economies. Next we shall illustrate the financialization process and deindustrialization in Brazil highlighting the channels through which financialization contributes to redefining the trajectory of structural change in the Brazilian economy. This paper is divided in two main sections to deal with the discussions above, and a final section with concluding remarks.

2. CHANNELS OF FINANCIALIZATION IN PERIPHERAL ECONOMIES

Financialization today defines the *modus operandi* of the global economy. Of the many ways to express financialization, the most widespread is the one by Epstein (2001) that identifies the

² According to The Economist (2022). The deindustrialization process of the Brazilian economy is characterized by premature deindustrialization and trade specialization marked by exports' reprimarization. According to Morceiro and Guilloto (2023), the reduction in the manufacturing value added of the gross domestic product (GDP) in current basic prices, was from 24.5% to 11.3% from 1980 to 2018.

³ Alami *et al.* (2023) observe that the financialization process of developing and emerging economies, which they call international financial subordination, also evolves with the support of domestic actors that profit from it. Bresser-Pereira *et al.* (2020), by the same token, argue that the financialization process in Brazil has been supported by a class coalition that benefits from the overvaluation trend of the real exchange rate, a by-product of the subordinated financialization.

growing role of financial motives, financial markets, and financial institutions in the functioning of economies. However, 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). In this sense, the so-called peripheral financialization, differs from the process that occurs in central economies.

Domestic and international factors drive peripheral financialization, which goes far beyond the increase in capital flows (Bortz and Kaltenbrunner, 2018; Kaltenbrunner and Paineira, 2018; Bonizzi *et al.*, 2019; among others). It involves the change in the quality of international flows, 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 that limits their policy space. Therefore, the *modus operandi* of financialization in developing economies, where the need for structural transformations is a condition for overcoming the peripheral condition, presents restrictions to them to increase aggregate productivity, technological complexity, and productive efficiency to boost socio-economic development.

In practical terms, peripheral financialization is tied with opening the developing economies' capital and financial accounts⁴. The long-term result of financial integration in most developing economies, mainly in Latin America, after adhering to the Washington Consensus recommendations in the late 1980s and the beginning of the 1990s, has been the increasing decoupling of financial investments on one hand and domestic capital formation, both in physical and human terms, including research and technological development, implying slow growth⁵. In this sense, the more developing economies are financially integrated into the

⁴ It should be noticed that in the early 1970s, McKinnon (1970) and Shaw (1973) were the main authors to provide a theoretical background to capital liberalization. They gave that the poor performance of investment and growth in developing countries was associated to 'financial repression', which would be associated to inefficiency in the intermediation of resources by the financial system. Hence, the 'financial repression' would explain a low rate of savings, credit rationing and low investment, leading to low growth and eventually to economic stagnation. Capital account liberalization and liberal reforms of the financial system would, therefore, provide an alternative to increase domestic saving and investment, allowing greater capital flow through loans to domestic banks, foreign direct investment and portfolio.

⁵ Indeed, while in the 1961-1980 period, Latin American GDP grew 5.8% p.y. and the world economy 4.5% p.y., from 1981 onward (until 2022), these rates were 2.4% p.y and 3.0% p.y. respectively. Thus, accepting the Washington Consensus recommendations can be understood as a landmark in implementing a new developmental strategy for developing economies that became financially integrated and dependent on foreign savings to grow. For a critical discussion on this issue of growth with foreign savings, see Bresser-Pereira *et al.* (2022).

international financial system, the greater the degree of subordination of their macroeconomic policies to the requirements of international capital⁶.

This is so because financial integration occurs in an international financial system characterized by currency hierarchy⁷. The currency hierarchy framework implies that the convertible currencies are the ones issued by central countries (central currencies), while non-convertible ones are those issued by peripheral countries (peripheral currencies). Central currencies have a higher liquidity premium than peripheral ones, which means that when the degree of uncertainty in the international financial markets increases, peripheral currencies are those that primarily suffer from the so-called flight to quality.

The financialization process of peripheral asymmetrically integrated economies can occur through at least two broad (macroeconomic) channels⁸: a financial channel, which increases financial fragility of the economy once capital flows are pro-cyclical and volatile, and a monetary policy channel, which reduces the policy space of peripheral economies. Both channels negatively impact long-term investment decisions, which largely explains the loss of dynamism of peripheral economies financially integrated.

The Financial Channel

Ocampo (2003) argues that peripheral economies financially integrated are “business-cycle takers”. This means that during the upward phase of the international liquidity cycle, agents’ optimism is reflected in their increased appetite for risk. Hence, they will allocate part of their portfolio to assets with low international liquidity and higher risk. However, when expectations change, uncertainty increases, 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.

Hence, the pro-cyclical nature of capital movement impacts peripheral economies either when foreign lenders sharply cut new lending and refuse to roll over old loans when they are needed (when lenders’ expectation become risk avert), or when domestic investors, anticipating a

⁶ Powell (2013), associates financialization in the periphery and its specificities as “*subordinate financialization*”.

⁷ On currency hierarchy, see, for example, Paula *et al.* (2017).

⁸ See Corrêa and Feijo (2022) for a detailed discussion on peripheral financialization’s macroeconomic and microeconomic aspects.

devaluation in their currencies, precipitate a capital flight⁹. Moreover, according to Ocampo and Stiglitz (2008), the instability in capital flows is not only observed in short-term speculative flows but also in longer-term portfolio investments, including foreign investment. It is in this sense that financially integrated peripheral economies are prone to augmented financial fragility.

According to Kregel (1999), Minsky's definition of financial fragility can be understood as the result of changes in the liquidity preferences of bankers and businessmen as represented by changes in the margins of safety required on liquidity creation produced by maturity transformation. Applying this definition to peripheral economies financially integrated and that supplement their domestic savings with foreign savings, Kregel (2004, p. 580) concludes that

“by definition and by design, [peripheral economies will be] operating a ‘Ponzi’ financial profile since the interest and amortization on the borrowing can only be met by additional foreign capital inflows”.

This implies that for a peripheral economy to successfully engage in foreign indebtedness to finance its growth in a financially integrated world,

“its success depends on the willingness of foreign lenders to continue to lend”.

Actually, an effective growth strategy relying on foreign savings, which would relax the external constraint to growth and turn the economy less vulnerable to external shocks, should imply that private external finance would be provided for an extended period to allow the recipient economy to generate a perennial surplus in its current account. That is to say, the economy would be able to undergo a structural change towards more sophisticated and complex activities. This point leads to the macroeconomic conditionalities imposed on peripheral economies that are financially integrated, which reduce their policy space for implementing developmental policies to help them overcome their peripheral condition and, therefore, their external vulnerability.

⁹ These patterns were largely registered in the balance of payments crisis in the 1990s in Asia and Latin America.

The Macroeconomic Policy Channel

The macroeconomic policy asymmetry is characterized by a lower degree of macroeconomic policy autonomy. This is because, under the asymmetric currencies hierarchy, the uncovered interest rate parity theorem is systematically violated. This theorem states that the expectation of a depreciation in the domestic currency should reflect the differential between domestic and international interest rates. Hence, according to the traditional Mundell-Fleming model, under a floating exchange rate and capital mobility monetary autonomy is an expected result for a small economy. The floating exchange regime would allow the interest rate parity equation to establish the relationship between monetary policy and the international financial market. The assumption is that 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. However, as mentioned, capital flows in a globalized world economy are highly speculative, and so capital flows in peripheral countries are highly destabilizing and pro-cyclical.

Therefore, the subordinate position of peripheral economies implies that monetary policy autonomy is reduced because interest rates might be used to mitigate exchange rate volatility, which is a result of the pro-cyclical dynamics of capital flows to the periphery. Indeed, the autonomy to set the interest rate to control aggregate demand is constrained since monetary authority may be prone to accommodate changes in the direction of capital flows using the interest rate differential. In turn, 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 differential¹⁰.

Hence, contrary to conventional wisdom, peripheral developing economies' subordination to the international liquidity cycle largely explains the connection between monetary policy and exchange rate movements in the short term. As Rey (2015) explained, the Mundell-Fleming trilemma about the autonomy of monetary policy turns into a dilemma in a globalized financial world since, no matter the exchange rate regime, peripheral economies under free capital flows

¹⁰ See also Carneiro and Conti (2022), who argue that the new historical context of financialization stresses the center-periphery dichotomy through the exacerbation of currency hierarchy.

are subordinated to the liquidity cycle of central economies¹¹. That is so, as peripheral developing economies, that are financially integrated into a hierarchical financial system, tend to keep their currency tied to the capital flows and the international commodities market dynamics, over which they have little control.

Furthermore, the commitment of the central banks of these economies to price stability subordinates monetary policy and exchange rate policy to price stability. Hence, in another situation, under the inflation targeting regime, the domestic interest rate should increase if inflationary expectations increase. The increase in the interest rate differential attracts foreign capital, and an exchange rate appreciation is expected, which, on its turn, would help to cool off inflationary pressures. Besides, the exchange rate is one of the main mechanisms for transmitting the impulses of the interest rate to inflation, and because of that monetary authorities might be inclined to tolerate exchange rate appreciation as an instrument to fight inflationary pressures¹². Thus, as a result of the existence of a currency hierarchy, peripheral economies have a structurally higher level of real interest rates than central economies and face an overvalued real exchange rate tendency together with higher volatility¹³.

In this way, macroeconomic asymmetry also implies that fiscal space is limited in peripheral economies that operate with high interest rates. Ocampo (2003) shows that during a period of readily accessible external financing public spending will expand, but, it will be followed by an adjustment when the favourable conditions are no longer present. The economic slowdown will imply that the weight of public debt interest payments will increase, which will trigger a pro-cyclical cut in primary spending in the public budget. A way to control fiscal debt is to reduce domestic interest rate, what might not be an easy option for a peripheral developing economy financially integrated dependent on foreign savings.

¹¹ By presenting empirical evidence on global financial cycles, Rey (2015, p. 3) points out that “*the global financial cycle transformed the ‘trilemma’ into a ‘dilemma’ or an ‘irreconcilable duo’*. Independent monetary policies are possible if, and only if, the capital account is managed, directly or indirectly, via macroprudential policies”. But if these latter policies are not sufficient, she adds that direct “*capital controls must also be considered*”.

¹² For a discussion on the relevance of the exchange rate as a mechanism of transmission of the interest rate to inflation see Kregel (1999); Flassbeck (2001); Bresser-Pereira and Nakano (2002); Nassif *et al.* (2020).

¹³ A direct impact of the subordinate position in the international monetary-financial system 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, but it does not assure a better position in the currency hierarchy. On the opposite, if it is a necessary policy instrument to wide policy space, it also comes with a financial cost.

In sum, the consequences of keeping a high level of real interest rate, either to control inflation and/or to attract capital, imply a non-competitive real exchange rate that leads to a low growth performance. In a nutshell, peripheral economies have their policy space narrowed, once they open their capital and financial accounts to capital flows. The international dynamic, in a hierarchical monetary system, is a defining feature of peripheral financialization. In this respect, the asymmetrical insertion in the international monetary financial system constrains long-term financing and the autonomy of macroeconomic policy which are both subordinated to the international financial cycle.

In this sense, the connection between financialization of peripheral developing economies and structural change might result in a regression in terms of technological advances instead of a movement towards more sophisticated, complex and diversified productive matrix.

In the structuralist literature, industrialization is perceived as the strategy that enables peripheral economies to break free from the peripheral condition. Therefore, structural change, 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. Structural change, on its turn, implies heavy investment in capital formation. Hence, investment is a fundamental component of the process of structural change, either because of its dynamic impact on the determination of aggregate demand, via the multiplier effect and also because new investment incorporates technical progress which is essential to increase labour productivity and long-term growth. The downward trend of this variable in the context of financialized peripheral economies entails a barrier to the process of structural change towards more sophisticated and complex activities.

In a word, the process of progressive structural change demands an environment of macroeconomic stability to enhance long-term investment decisions and that short-term macroeconomic policy can set the main macroeconomic prices – the interest rate and the exchange rate – on a level that stimulates long-term investment. The subordinated insertion of peripheral developing economies in the international monetary and financial markets might not provide such conditions once their economic policy autonomy is limited and the pro-cyclical character of capital flows enhances their external vulnerability.

3. THE STAGNATION OF THE BRAZILIAN ECONOMY

The Brazilian economy is an emblematic case of early deindustrialization and moving towards the specialization in the production of commodities. The deindustrialization process started to be observed in the 1990s, coinciding with the abandonment of the import substitution growth model, which had been the main industrialization strategy for most developing economies since the war, and the opening of the economy that followed the adherence to the Brady Plan to refinance external debt. The commitment to the Brady Plan at the beginning of the 1990s implied that the economy should follow the recommendations of the so-called Washington Consensus, which consisted of several measures to liberalize the economy, among the most important considering the significant impact on the *modus operandi* of the economy is the opening of capital and financial accounts. The connection between deindustrialization and financialization in the Brazilian case can be traced because of the narrowing of policy space that followed the financial integration of the economy with a currency with a low liquid premium in an asymmetrical international monetary and financial system.

The discussion of financialization and a regressive structural change of the Brazilian economy to explain its recent stagnation should address the following question: given the advancement of the financialization process through the subordinated financial integration, what is the policy space for the economy to leverage its growth? By policy space, we understand not only the margin to execute countercyclical macroeconomic policies (monetary, fiscal, and exchange rate policy) but also structuring industrial policies to increase the economy's investment rate, in particular, public investment in infrastructure and R&D, using public credit directed to specific sectors. The manufacturing industry and the associated services should be of specific interest to industrial policy¹⁴.

According to the structuralist literature, the relative increase in the participation of the manufacturing sector in the productive structure, especially in medium- and high-technology industries, is a necessary condition to increase aggregate productivity and to enhance growth. It is well established that the industrial sector is the one with more backward and forward linkages and the one that incorporates and disseminates technological progress towards the whole economy. In the case of Brazil, in 2022, the share of the manufacturing industry in total value

¹⁴ For a discussion about the connection between macroeconomic policy and industrial policy in Brazil, see Nassif *et al.* (2018).

added reached 11.1% (in real terms) and in 1990, this share was 18.1%. In terms of foreign trade, since 2009, half of the exports have been composed of goods intensive in natural resources, to the detriment of manufacturing goods¹⁵.

One consequence of the loss of weight of the manufacturing industry in total value added and the diminishing of complexity in the productive matrix is the negative impact on the growth dynamism of the economy. Table 1 compares the growth rates of GDP and the manufacturing industry for selected periods and allows for two observations. First, growth rates were higher in the 2000s than in the following periods, signaling that the economy is losing dynamism as the manufacturing industry reduces its weight. Second, manufacturing industry growth rates are below those of the total economy in all periods and have been decreasing since 2010, registering negative results on average.

TABLE 1 - *Average Growth Rates of GDP and Manufacturing Industry (% p.y.) - Selected Periods*

	GDP	Manufacturing Industry
2000-2009	3,4	2,4
2010-2019	1,4	-0,3
2020-2023	2,0	-0,5

Source: Brazilian Statistical Office (IBGE): Quarterly National Accounts.

To shed light on some of the reasons why the Brazilian economy is deindustrializing, and rather quickly, we should discuss how short-term macroeconomic policy might be contributing to this result. In line with the previous section, we shall investigate the main characteristics of managing short-term macroeconomic policies since the 2000s in determining the interest rate and contributing to real exchange rate misalignment. Despite easing the convergence of inflation rates to the annual targets, one negative effect of the real exchange rate misalignment is that it has been boosting premature deindustrialisation.

Figure 1 shows a comprehensive view of the evolution of the Brazilian economy by presenting the balance of institutional sectors as a share of GDP since 2000, according to the National

¹⁵ For a discussion about the evolution of economic growth and productivity growth in Brazil, see Nassif *et al.* (2020a).

Accounts. We shall follow Ocampo *et al.* (2009), who argue that semi-industrialized developing economies exhibit a strong positive correlation between the External and Private sectors' financial balances. This means that the External sector's behavior is dominant in explaining how the Private sector reacts to external restrictions and the room for maneuvering the Government sector to intervene countercyclical¹⁶. In the authors' view, in semi-industrialized economies, the Domestic Sector (Private and Government) adjusts to the financial balance of the External sector.

For the Brazilian economy, two inflection points – in 2008 and 2014 – registered a worsening of the external balance and the narrowing of policy space. Between 2000 and 2008, the Brazilian economy was in an upward phase of the economic cycle when the External sector, from 2002 on, showed a consistent improvement in the current account due to the growing demand of exports and the rise in commodity prices. The period of external bonanza is reflected in a combination of the Private sector (Families and Firms) surplus and a relatively low deficit of the Government sector¹⁷.

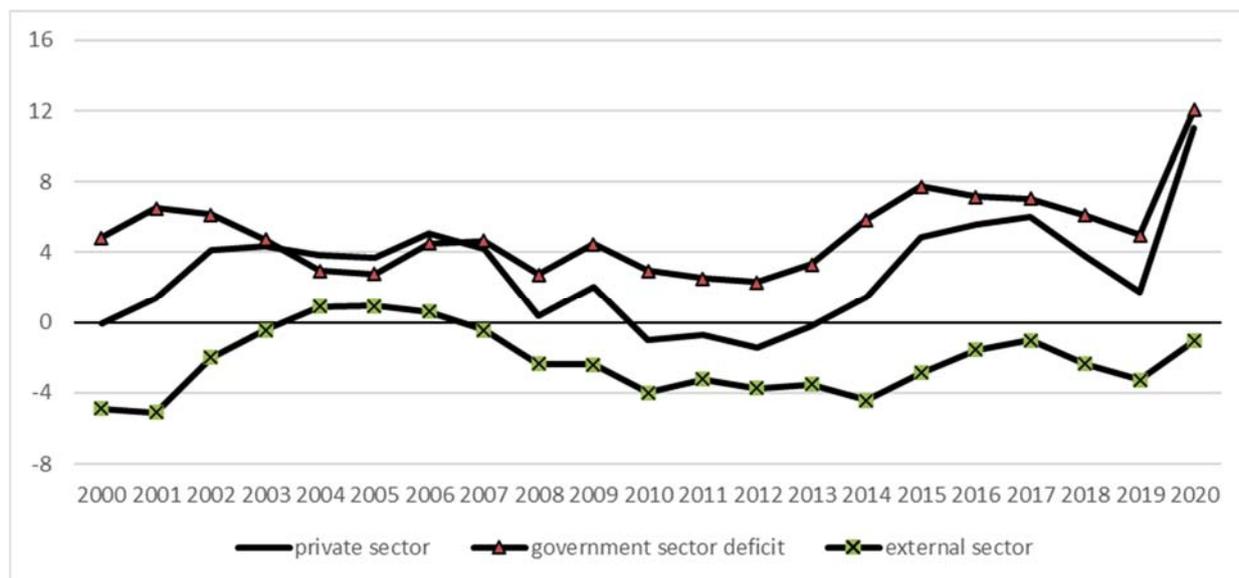
During the bonanza phase, which lasted until the 2008 international financial crisis, the investment rate, taken as an indicator of the expectations about the prospects of the economy, rose from 18.3% in 2000 to 19.4% in 2008. The rate of public investment, in turn, moved from 2.6% in 2000 to 3.5% in 2008 (Figure 2).

However, the period of higher dynamism was short-lived because the 2008 international financial crisis dramatically changed the foreign economic context, made policy space narrower, and turned the economy more vulnerable to external shocks. The beginning of the 2010s was when the financialization process increased as the levels of both public and private debt increased. The external scenario after the international financial crisis is also characterized by the change in Chinese growth policy, which seeks to reorganize the growth pattern by turning to domestic consumption and, as Carneiro (2017) points out, by the change in the monetary policy of the United States, which went from expansionist to contractionary in mid-2013.

¹⁶ This interpretation contrasts with the mainstream literature on the twin deficits, emphasizing the correlation between the government and external sectors' financial deficits. In the case of Brazil, the correlation between the Private sector and the External sector along the 2000s and 2010s is over 60%.

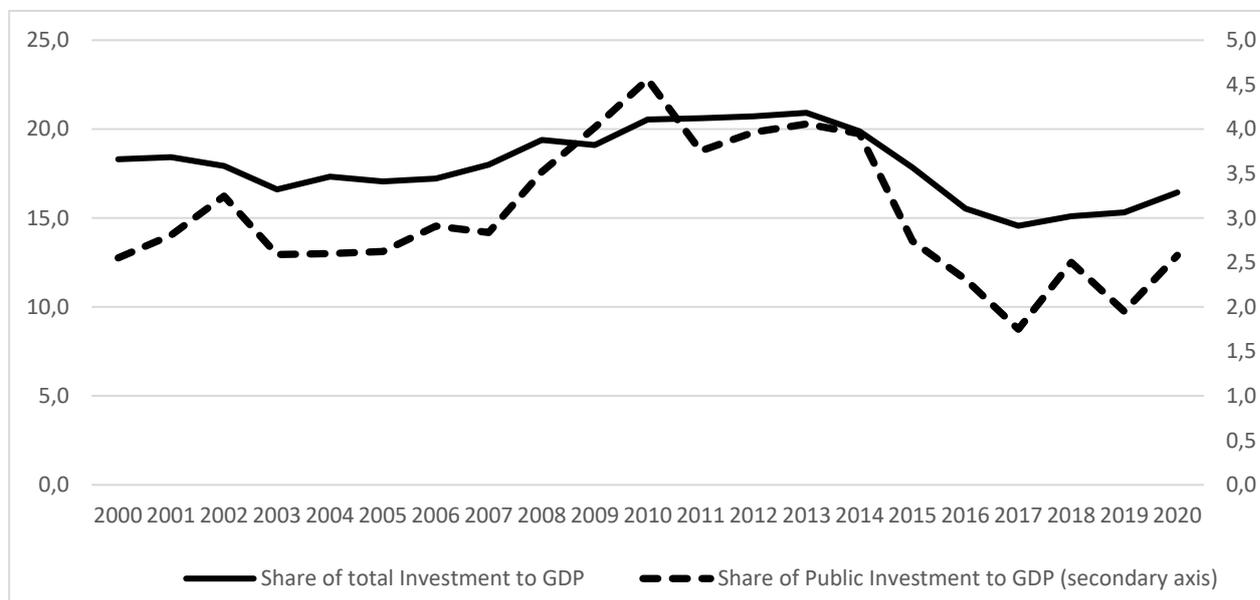
¹⁷ As Karwowski and Stockhammer (2017) point out, during the 2003-2007 period, policy space is increased in the Brazilian economy and developing economies in general. During this period, global growth led by China was also accompanied by a significant increase in international financial flows, especially directed at developing economies. The authors highlight that intensifying these flows is an international dimension of financialization.

FIGURE 1 - Sectoral Balance of the Brazilian Economy by Institutional Sectors -% GDP



Source: Brazilian Statistical Office (IBGE): National Accounts.

FIGURE 2 - Rate of Total and Public Investment as a Share of GDP (%)



Source: Fiscal Policy Observatory (IBRE-FGV), available at <https://observatorio-politica-fiscal.libre.fgv.br/posts/investimentos-publicos-1947-2020>.

Therefore, after the 2008 international financial crisis, the Brazilian economic cycle entered a descending phase and since 2013 the investment rate has been declining. Although the Brazilian authorities managed to implement countercyclical policies in the aftermath of the international financial crisis, and the economy recovered well in 2010, growing over 7% that year, since 2011, the Brazilian economic growth rate has been following a stop-and-go pattern. Actually, as shown in Figure 1, the years between 2008 and 2014 are characterized by a deterioration of the current account balance and by a drop in the financial surplus of the Private sector. Also, it is observed an attempt to reduce the deficit in the Government sector's financial balance, which fell slightly compared with the previous period.

A third period can be seen after 2015: the Government sector's financial deficit jumps to the average of 7.3%, while the Private sector's financial surplus returns to the average level around 5%. GDP growth between 2015-2022 expanded only 0.2% p.y. and gross capital formation decreased 1% p.y. Since the mid-2010s, the Brazilian economy has stagnated.

It is worth mentioning that the government did not watch the fall in the investment rate inertly; however, changes in the external scenario limited policy space to countercyclical measures in the 2010s. Since 1999, macroeconomic policy has been managed according to the so-called macroeconomic tripod, based on a floating exchange rate, inflation targeting, and a primary fiscal target regime, and policy management has been conducted in a very conservative manner.

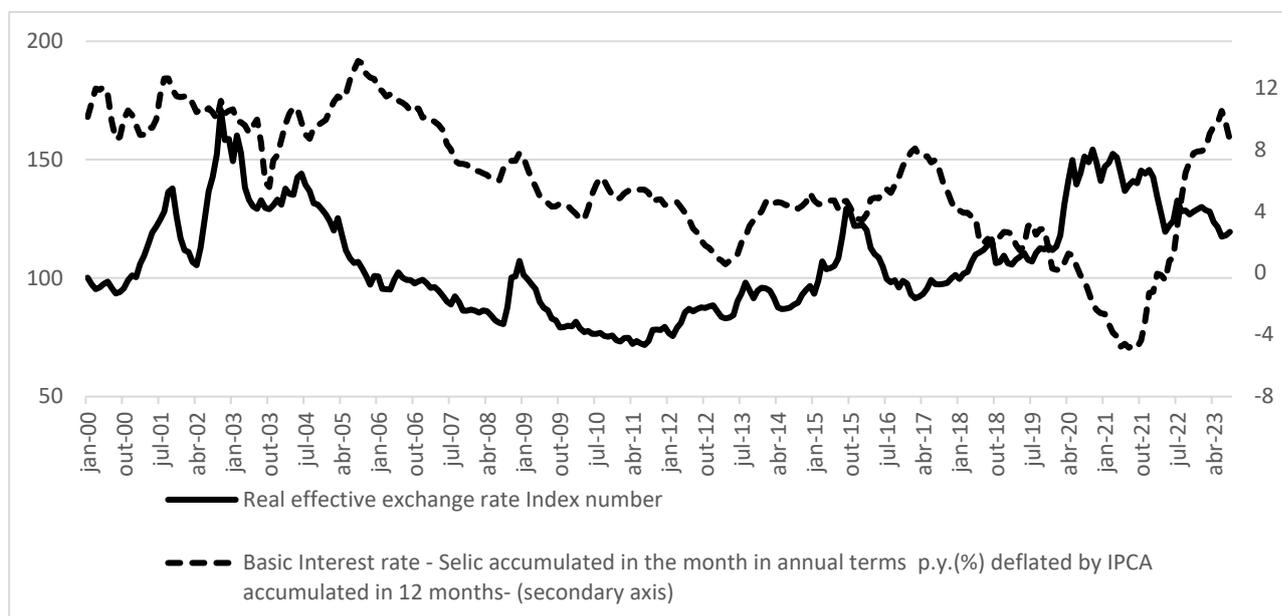
Figure 3 shows the evolution of the real interest rate and the real exchange rate from 2000 to 2022. Through Figure 3, we can highlight one of the main characteristics of the Brazilian economy: keeping a permanent very high level of the real interest rate¹⁸, and so keeping high-interest rate differentials to attract foreign capital. Consequently, this contributes to the real exchange rate to present an appreciation trend¹⁹, one of the main explanations for the severe and fast deindustrialization process²⁰.

¹⁸ The high level of the nominal and real interest rate in Brazil can be explained, in part, by the conservative management of the monetary policy. On this issue, Bresser-Pereira and Nakano (2002, p. 169) state that “*After the persistent maintenance of interest rates at very high level, it is natural that there is a fear of reduction and so that level becomes a **convention** in the Keynesian sense of the term, and also a trap. Therefore, there will not be easy to escape the perverse equilibrium of the interest rate that we got ourselves into many years ago*” (emphasis added).

¹⁹ It should be mentioned that the behavior of the real exchange rate depends not only on macroeconomic policy management but also on the degree of openness to international trade and capital flows in a hierarchical international monetary system.

²⁰ According to the new developmentalism literature, the deindustrialization of developing economies can be mainly explained by the non-neutralized Dutch disease and the high-interest rate differentials of developing economies,

FIGURE 3 - Evolution of the Real Interest Rate (%) and Real Exchange Rate (Index) – 2000-2023



Source: Brazilian Central Bank (Selic interest rate- serie 4189; real exchange rate- serie 11752); Brazilian Statistical Office (IBGE) (IPCA- serie 1737).

As seen in the previous section, the uncovered interest rate parity theorem is constantly violated in peripheral economies financially integrated as the foreign exchange market faces high instability, and the threat of depreciation puts pressure on the domestic interest rate to keep the attractiveness of domestic assets. In the case of the Brazilian economy, foreign exchange instability impacts monetary policy that manages a high-interest rate level. A stylized fact describes how the movement of the interest rate and exchange rate occurs. After a period of exchange rate instability, as soon as the foreign exchange market is stabilized again, an appreciation trend of the exchange rate is expected following the announcement by the central bank of successive increases in the domestic policy interest rate. The goal is to reduce inflation expectations within an inflation-targeting context. The issue is that systematic increases in short-term policy rates represent an additional incentive to sustain the excessive flows of foreign capital, especially those of a speculative nature. In practical terms, this stylized fact

which fuel a long-term appreciation trend of the real exchange rate. These structural factors, combined with the high volatility of the exchange rate due to short-term capital flows, do not stimulate long-term investment in capital formation and R&D, which are necessary to revert the deindustrialization process and enhance long-term growth. See Bresser-Pereira *et al.* (2015) for a theoretical analysis of premature deindustrialization and its consequences on the long-term growth of developing economies.

suggests that since foreign investors tend to bet on the appreciation trend of currencies in emerging economies over the bonanza period, using these currencies for carry-trade strategies²¹ implies that the uncovered interest rate parity is explicitly violated. Thus, instead of reflecting expectations of depreciation, such dynamics reveal that the higher the interest rate differential, the greater the expectation that the domestic currency will continue to appreciate. This tendency will only be interrupted by sudden stops after any domestic or international shock²².

Although the level of the real interest rates in Brazil is very high compared with other developing and developed countries, they decreased during the 2000s, when policy space was widened by the good performance of the foreign sector, and the beginning of the 2010s. Nonetheless, as observed by Paula *et al.* (2015), the economy started the 2010s in a more fragile situation, and the impact of the 2008 international financial crisis would already signal a reversal in the growth trajectory that began in 2003. To deal with the new international environment, an attempt was made to change the *modus operandi* of the economy. According to Oreiro and D'Agostini (2017; 28), macroeconomic authorities tried to change the macroeconomic regime basically by making monetary policy more flexible (reducing interest rates and allowing inflation to reach the ceiling of the target range) and lowering taxes on manufactured products²³. This latter policy, a classical supply-side policy, aimed at increasing industrial competitiveness and was named the 'New Macroeconomic Matrix'²⁴. The new macroeconomic policy arrangement, however, did not succeed well, and according to Oreiro and D'Agostini (*op. cit.*; 41), the failure is explained because it was unable to deal with the structural problems of the Brazilian economy, mainly low aggregate productivity and low competitiveness of manufacturing products. Moreover, Paula *et al.* (2015) remark that the new macroeconomic arrangement did not focus on sustaining public investments²⁵, which had a negative impact on aggregate demand growth. Indeed, public

²¹ Rossi (2012) shows how the carry trade operations contribute to the overvaluation trend of peripheral currencies. According to the author, carry trade operations is one of the main transmission mechanisms of the international liquidity cycle for exchange rate dynamics.

²² See Nassif *et al.* (2020) for a discussion of stylized facts to explain the functioning of the inflation targeting regime in Brazil.

²³ Tax reductions were mainly designed to reduce corporate costs such as cuts in payroll.

²⁴ Ferrari-Filho *et al.* (2014, 536) point out that there was an inconsistency between the Keynesian approach of New Macroeconomic Matrix and the macroeconomy tripod based on the New Macroeconomic Consensus.

²⁵ It should be noted that in April 2013 the government launched the the Plano Brasil Maior (Mayor Brazilian Plan), in an attempt to promote growth. As the main pillars of the neoliberal macroeconomic agenda – inflation target and primary fiscal surplus – were kept untouched, the initiative showed a poor result, as sustainable growth did not resume.

investment was 4.1% of GDP in 2013 and this ratio decreased to 2.7% in 2015 and it was 2.6% in 2020.

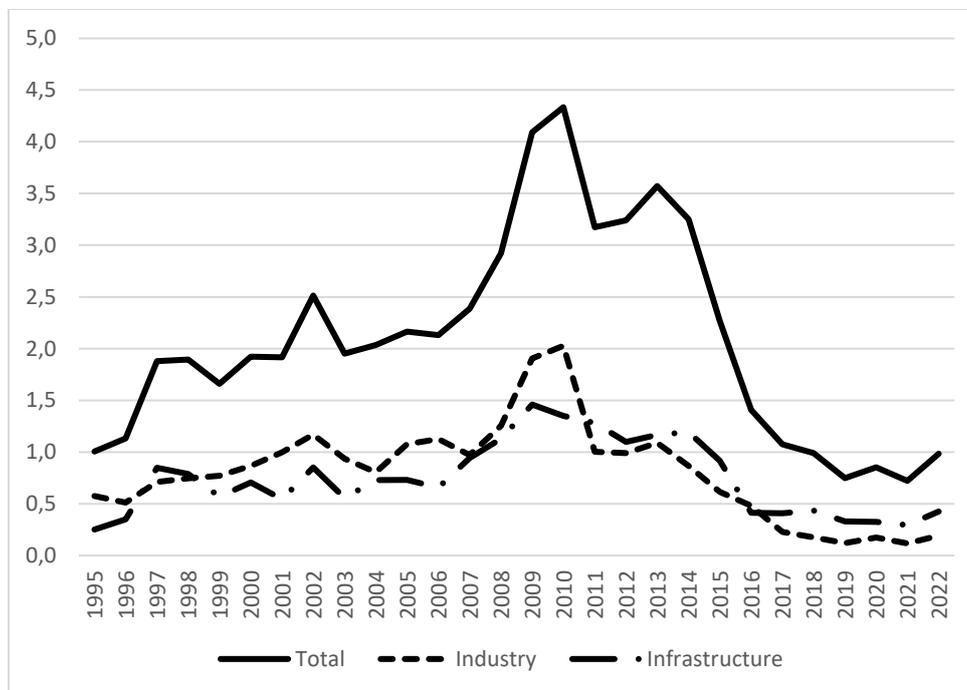
Therefore, the slow recovery of the world economy in the 2010s and the failed attempt to change domestic macroeconomic policy to stimulate aggregate demand led the economy to register two years of deep recession (reduction of 3.6% in 2015 and 3.3% in 2016) with investment rates dropping steadily. The liberal economic reforms that have been implemented since 2016, as a way out of recession, did not delivered the resumption of growth, as they have not reversed expectations in favor of a sustained recovery²⁶.

Among the liberalizing measures the most important reform was the Constitutional Amendment Proposal (PEC) n° 241/2016, approved on December 15, 2016 (Constitutional Amendment n° 95). Under the argument of resuming economic growth, the government constitutionally limited public spending for 20 years, shrinking the state and preventing the constitutional system of social protection (which includes health, social security, and assistance) from functioning adequately to meet the population's needs²⁷. Another significant institutional change in line with the liberal reforms of the mid-2010s occurred in the National Development Bank (BNDES). The BNDES has been the leading supplier of long-term credit at lower cost, mainly to industry and the infrastructure sectors. From 2018, the subsidized interest rate charged in most loans has been replaced by an interest rate closer to the market rates. Figure 4 shows the decline in BNDES disbursements starting in 2013 and not recovering afterward.

²⁶ It should also be remarked that since 2016, the fight against corruption in the country, through the operation named 'lava-jato', condemned and sent CEOs, mainly of big civil construction companies, to jail. Besides negatively affecting the infrastructure sector in Brazil, the way it was conducted it has also contributed to the increased jurisprudential uncertainty in the economy.

²⁷ A new fiscal rule ('new tax framework') is being implemented in 2023, as the former law proved dysfunctional and had been violated several times, implying political negotiations between the Presidency and Congress.

FIGURE 4 - *Disbursements of the National Development Bank (BNDES) as a Share of GDP (%) 1995-2022*



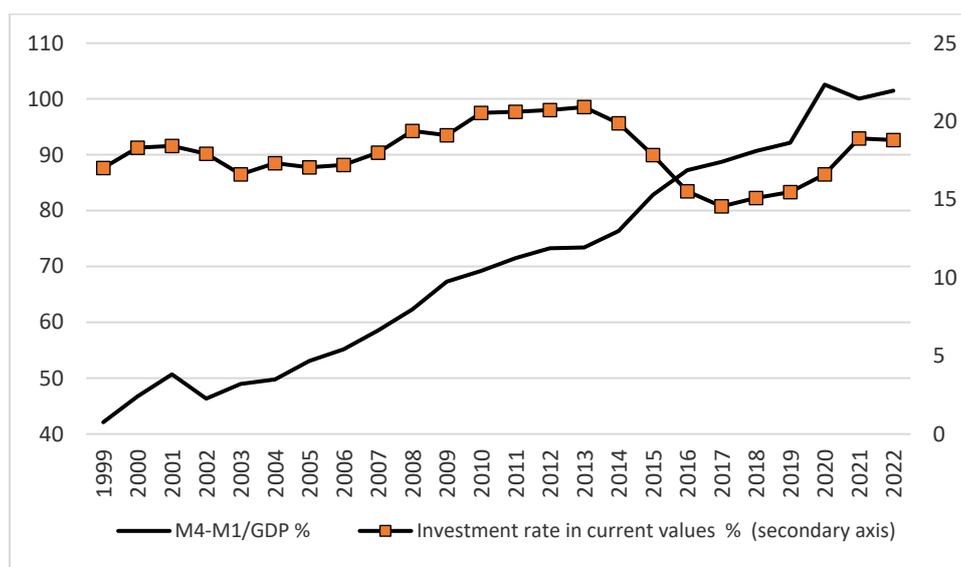
Source: National Development Bank (BNDES)

On the other hand, we can suggest that liberal reforms imposed after 2016 deepened the financialization process of the Brazilian economy. Figure 5 compares the evolution of the investment rate and a proxy of the accumulation of financial assets as percentage of GDP. The figure suggests that financial accumulation is growing steadily, while the investment rate decelerates after 2013 and, in 2022, is still below the 2010 level. Interesting to note that real interest rates decline after 2016 (Figure 3), reaching historical low levels for Brazilian standards (although higher than most developing and developed economies) and even so the rate of investment did not improve²⁸. Also, the convention to keep the interest rate high can be seen in the recent pandemic crisis, when the Brazilian Central Bank started increasing the policy rate in

²⁸ Monteiro and Feijo (2023) show that after 2015 financial companies allocated most resources to finance the Government sector. In Mantoan *et al.* (2021), the authors show that after the 2015-2016 recession, large companies have been restructuring their debt profile and adopting a defensive behavior, increasing their liquidity preference. The authors argue that, even with the sharp fall in domestic real interest rates, the degree of confidence on expectations to recover investment in productive assets was low. They conclude that agents' decisions do not respond only to supply stimulus, but are guided by expectations of future returns, which fundamentally depend on the performance of aggregate demand.

2021, moving in opposite direction of the large majority of the world's central banks during the sanitary crisis²⁹.

FIGURE 5 - *Investment Rate and Financial Accumulation Rate (M4-M1/GDP %) – 1999-2022*



Source: Ipeadata.

To sum up, the attempt to flexibilize the macroeconomic tripod with a different economic policy arrangement at the beginning of the 2010s, with a reduction in the real interest rate and tax exemptions to non-financial companies to stimulate growth, did not succeed. The slow recovery of the world economy increased the deficit of the External sector, which contributed to narrow policy space. Furthermore, the flexibilization of the monetary and fiscal policies relied on supply-side measures and cuts in public expenditure. In the first moment, the deficit of the Government sector decreased, and the financial deficit of the Private sector increased. As Private sector deficits are not sustainable, the persistent External sector deficit leads to an increase in the deficit of the Government sector to compensate for the Private financial balance. The trajectory of the Brazilian economy from 2013 onwards implied the combination of Government and External sector deficits. As the degree of macroeconomic uncertainty did not reduce with several attempts to reform the economy in the following years, investment rates decreased, and the economy stagnated from the mid-2010s onwards. Also, the

²⁹ See Feijo *et al.* (2022) for a discussion on monetary policy during the pandemic crisis.

deindustrialization process accelerated in the 2010s, turning recovery of aggregate output much harder.

Conversely, the financial integration under free capital movements and the policy of keeping the real interest rate at a high level to attract capital, and the appreciation trend of the real exchange rate, combined with liberal policies aiming at shrinking the state and deregulation of the financial and labor markets are a stimulus to the financialization of the economy. The financialization of the economy in the context of low growth expectations leads to economic stagnation. The pandemic crisis in 2020-2022 is a recent episode that has contributed to the deteriorating Brazilian economic conditions, with the increase in private and public debts that difficult the reversion of negative long-term expectations. Deindustrialization results from long periods of low investment in capital and human formation and restrains the potential of the economy to resume growth. In a word, the deepening of the financialization process due to liberalization economic reforms and financial integration, on the one hand, and the conservative manner in which macroeconomic policies are managed have trapped the economy in low economic growth for almost a decade. In this sense, the economy is stagnant.

4. FINAL REMARKS

The financialization process of peripheral economies is driven by financial integration in an asymmetrical international monetary and financial system. Asymmetrical economic integration makes peripheral economies more vulnerable to external shocks and narrows their policy space. In this sense, the financialization process implies slower rates of growth.

The financialization process is also country-specific, meaning each experience has its characteristics. In the case of the Brazilian economy, the financialization process is connected with severe and fast deindustrialization, and in this paper, we argue that the economy has stagnated since the mid-2010s. The reason for the stagnation is that the economy has lost its primary growth driver due to comprehensive deindustrialization.

We analyzed the evolution of the Brazilian economy since the 2000s through the financial balances of the economy's institutional sectors. We showed that the Brazilian economy was in an expansionary phase in the 2000s due to the excellent performance of the External sector. Policy space could be widened, and real interest rates, although very high, steadily declined. The

investment rate increased, and GDP grew 3.4% p.y. The international financial crisis interrupted the expansive phase, and the 2010s was a period of economic reversion.

One characteristic of economic growth in the 2000s was the overvaluation trend of the real exchange rate. This trend is a by-product of the narrow policy space of peripheral economies financially integrated. In the case of the Brazilian economy, the misalignment of the real exchange rate is also due to the very conservative manner in which monetary policy is managed, and the long overvaluation period contributed to deindustrialization. Manufacturing goods have been losing competitiveness in domestic and foreign markets, which is also a disincentive to investment in capital formation in the manufacturing industry.

The 2010s are a period of decelerating growth. The change in the international scenario negatively affected the Brazilian economy through the slow recovery of the world economy. Liberal economic reforms were deepened to resume the investment rate, with little success. The constraint of public expenditures, particularly public investment, deprives the state of stimulating aggregate demand, and in this sense, the Brazilian economy is heading to another lost decade.

From the analysis of the institutional sectors we can say that an economy with recurrent External Sector deficits should aim at inverting the dependence on foreign savings to allow for Private Sector sustained surplus. Also, to seek a surplus in the Government Sector (or even the reduction of its deficit) the Brazilian economy would need to run an even greater trade surplus, otherwise, the Private Sector will present persistent deficits. Considering that the economy is more dependent on the external flow of capital, and its export basket is still highly dependent on commodities, the recovery of growth should remain slow, and the expansion cycles should be short. As Bresser-Pereira (2012) points out, the real exchange rate is a strategic price to give access to competitive companies to both foreign markets and also to compete domestically with imports. Therefore, a competitive real exchange rate has the potential to sustain a surplus concerning the External Sector and also generating a positive balance for the Private Sector, in case the Government Sector deficit remains constant.

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