

Growth and distribution in Brazil in the 21st century: revisiting the wage-led *versus* profit-led debate

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Abstract

In the 2000s, several Latin American economies, and Brazil in particular, have engaged in relatively successful attempts to combine higher economic growth and lower income inequality. As the Brazilian economy slowed down in the last few years, the sustainability of this growth model has been put into question. After studying the impact of different redistributive policies (like minimum wage and income transfers) on the personal and functional distributions of income in Brazil, the paper discusses the response of aggregate consumption, investment and net exports – as well as of the economy's productive structure and inflation rate – to the changes in income distribution itself and other relevant factors. The analysis allows us both to draw lessons to the Neo-Kaleckian literature on demand regimes, pointing towards the importance of some theoretical extensions, and to examine future prospects for the Brazilian economy.

Keywords: demand regimes, functional and personal income distribution, Brazilian economy.

JEL classification: E11, E25, D3

1. Introduction

A careful examination of the experience of Latin American economies since the early 2000s is long overdue, especially for economists interested on the relation between growth and distribution. After the protracted stagnation of the region that began with the sovereign debt crises of the 1980s, only in the 2000s Latin America was able to sustain economic growth for a longer period. The average annual GDP growth rate of the region from 1981 to 2000 was 2.36 per cent in real terms, while the world average was 2.99 per cent. From 2001 to 2013, the world average dropped to 2.56 per cent, whereas Latin America attained 3.13 per cent. Brazil was no exception to this trend: its average annual GDP growth rate went from 2.10 in the 1980s and 1990s to 3.28 from 2001 to 2013³. Additionally, this was not merely a story of accelerating growth. In spite of remaining the region with the highest levels of income inequality in the world, Latin America went through a consistent process of inequality reduction, which started in the turn of the 1990s to the 2000s. And this happened at the same time that income inequality was growing everywhere else (Lustig et al., 2013; Palma, 2011).

Such a regionally homogeneous experience raises the suspicion that its determination might be found in some international process that affected Latin America as a whole. One of the main interpretations along these lines claims that the growth acceleration was a result of rapidly increasing world (especially

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³ Data from the World DataBank (The World Bank), available at: <http://databank.worldbank.org/data/home.aspx>.

Chinese) demand for the regions' exports. This rising demand had a clear impact on the prices of primary goods, as evidenced by the IMF's index of commodity prices, which after remaining virtually flat from the early 1990s to the early 2000s increases markedly from 2002 onwards⁴. It is relatively uncontroversial that it represented a positive shock to the region's economy.

Examining some of the main Latin-American economies, however, it is plausible to argue that the explanation for their performance since the 2000s should also be sought in the domestic policies implemented. It was also in the turn of the 1990s to the 2000s that candidates with a critical stance towards neoliberalism were elected in several of the region's countries and their accession to power meant a shift – sometimes gradual, sometimes abrupt – of the economic policies implemented. It represented a relatively successful (and definitely new) attempt to combine higher economic growth with a reduction in income inequality. For this purpose, in the particular case of Brazil, the strategy of the first and second Lula governments (2003-2010) has been based on two main pillars. The first was the expansion of the mass consumption market through the incorporation of previously excluded working families. The second was the increase in public and State-induced private investment in economic and social infrastructure.

In order to achieve these two goals, the government has made use of: (i) fiscal policy, having funded social transfers, minimum wage increases and higher spending in social housing, infrastructure, health and education, and (ii) an active credit policy, both via the development bank (BNDES), which financed an increasing volume of private investment at subsidized interest rates, and the public commercial banks (Caixa Econômica Federal and Banco do Brasil), which increased the supply of credit for housing and agriculture and also provided a growing volume of consumer credit.⁵

These policies were effective in reducing poverty rates, income inequality, and unemployment and in raising the labor share of income. The recovery from the crisis that began in 2008 was relatively fast, as the government expanded its public investment and credit policies, while maintaining social programs. However, what is more controversial was the success of the model in promoting a sustainable path of economic growth, especially after growth itself has fallen significantly since Dilma Rousseff started her administration in 2011.

The objective of this paper is to examine the trajectory of the Brazilian economy since the early 2000s, emphasizing the interaction between economic growth and income distribution. Such examination will resort to the neo-Kaleckian growth and distribution model, a macroeconomic framework that seems especially suited to the task, since it places the question of distribution at its core, in contrast to most other frameworks. The goal will not be to build a model for the Brazilian case, however, but to use it as a standpoint from which the interaction of the variables will be analyzed. Further, the specificities of the

⁴ Data available at: <http://www.imf.org/external/np/res/commod/index.aspx>.

⁵ For a description of the economic policy mix in Brazil since the early 2000s, see Barbosa-Filho and Souza (2010), Serrano and Summa (2012b), and Modenesi et al (2015). Analysis focusing on the period following the crisis that began in 2008 can be found in Cagnin et al. (2013), Serrano and Summa (2015) and Paula et al (2015).

case in hand will be used to raise questions on the assumptions and hypothesis of this literature, pointing out its limitations and suggesting routes for future research. By bringing together the neo-Kaleckian models and the recent trajectory of the Brazilian economy, we hope to contribute to the theoretical debate while examining the limits and possibilities of sustaining high economic growth and falling inequality in Brazil.

The paper will be organized in five sections. After this brief introduction, the second section will summarize the redistributive and macroeconomic policies adopted in Brazil since the early 2000s and the impact they had on income inequality. In the third section, we will discuss the trajectories of aggregate consumption, investment, and net exports and the shifts in the productive structure, in light of the neo-Kaleckian models. Then, in the fourth section, an attempt will be made to draw lessons to this literature from the Brazilian case, pointing toward the need for a more complex understanding of the concept of demand regimes. Finally, the fifth section will conclude the paper examining the future prospects for the Brazilian economy.

2. Economic policies and income distribution

There is no denying that economic dynamics have distributional consequences. But the recent literature on inequality has been making increasingly clear that ascribing it to “economic factors” alone is seriously misleading, since large variations on inequality across the world seem to be mainly a result of institutional heterogeneity. In the words of Gabriel Palma (2011: 123), “political-institutional factors and the nature of the political settlement in the real world are likely to have a far greater influence on the determination of income distribution than purely economic factors.” While much has been made of Thomas Piketty’s (2014: 13-15) critique of the so-called Kuznets curve, according to which inequality first rises then falls during a process of economic development, one of the conclusions of *Capital in the Twenty-First Century* is that differences in inequality across countries can be, to a great degree, explained by differing tax and labor market policies.

With this mind, the present section will attempt to summarize the process of income redistribution that took place in Brazil in the last fifteen years by focusing on the policies implemented. It is clear that the growth process made an important contribution to the reduction of inequality, especially through increasing the bargaining power of workers. But economic growth was itself a result, at least partially, of redistributive policies. This interaction will be further discussed in the next two sections, while the present one will focus on the mentioned policies.

2.1. Minimum wage

Since price stabilization was achieved following the Real Plan in the mid-1990s, the minimum wage in Brazil has increased almost monotonically in real terms, having now come close to its pre-dictatorship level⁶. Nonetheless, the average growth rate of the minimum wage, was much higher since the mid-2000s. This phenomenon was the result of a more active minimum wage policy in the Lula and Rousseff governments, which eventually led to the creation of a strict policy rule, first established in 2011 and renewed in 2015, that guarantees that the nominal value of the minimum wage is adjusted every year to cover not only the yearly inflation rate, but also the GDP growth rate observed two years before. Further, the most striking feature of this process for those labor economists working in the neoclassical tradition is that the fast rise in the minimum wage has been combined with a substantial increase in the rates of labor market formalization and a reduction in the unemployment rate.

The repercussions of the rise in the minimum wage for the evolution of both the personal and the functional distribution of income have been the subject of several empirical studies. Before summarizing these results, it is important to point out that besides acting as the legal floor for wages at the national level⁷, the minimum wage is also used in Brazil as an index for public servants' and rural workers' pensions, as well as for several social security programs, thus affecting – directly and indirectly – the income levels of a large portion of the population. Indeed, the average wage has also substantially increased during this period, even if at a slower rate than the minimum wage (Figure 1).

In this context, it is not surprising that the empirical evidence for Brazil has shown that increases in the minimum wage have not only shifted the wage distribution to the right, thus increasing the share of wages in total income, but have also changed the dispersion of wages, reducing wage inequality among the employed. In a recent study, which reproduces the decomposition techniques from DiNardo et al. (1996), Komatsu (2013) shows that the rise in the minimum wage has contributed for a substantial reduction in the wage dispersion at the bottom of the distribution, between 2004 and 2011⁸.

In order to distinguish the effect of the minimum wage policy on the functional distribution of income and on the size distribution of wages, it is useful to start from the following expression of the wage share of income ψ :

$$\psi = \frac{WL}{PY} = \frac{W/P}{Y/L} \quad (1)$$

⁶ The military dictatorship that ruled Brazil from 1964 to 1985 implemented policies that substantially increased income inequality. One of them was a reduction in real terms of the minimum wage that would only start to be reversed in the mid-1990s. See Bacha and Taylor (1978).

⁷ Even if Brazilian legislation allows states to set a higher minimum wage than the one established by the federal government, all the data studied here will refer to the federal floor, rather than the national average.

⁸ Empirical studies for earlier time periods with similar implications can be found in Fajnzylber (2001), Ulyssea and Foguel (2006), and Menezes-Filho and Rodrigues (2009).

where W is the average nominal wage, L is the level of employment, P is the general price level, and Y is the aggregate output level. By assuming that the average nominal wage is given by a multiple $\delta > 1$ of the nominal minimum wage W_{\min} , expression (1) yields:

$$\psi = \frac{(\delta W_{\min})/P}{Y/L} \quad (2)$$

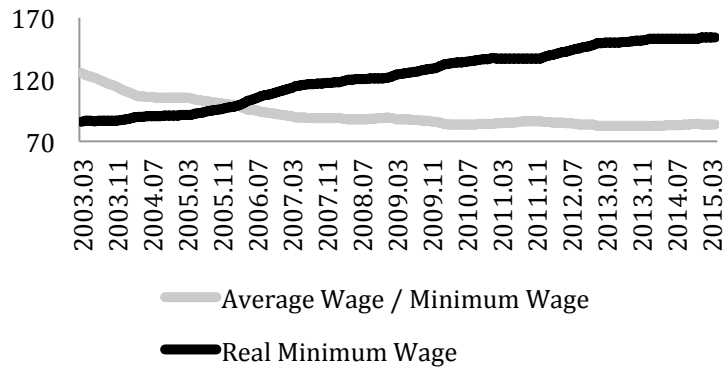
In growth rate form, expression (2) becomes:

$$\hat{\psi} = \hat{\delta} + \hat{W}_{\min} - \hat{P} - (\hat{Y} - \hat{L}) \quad (3)$$

By guaranteeing gains to the minimum wage that are commensurate with past growth and inflation, the current minimum wage rule has an effect of stabilizing the term $(\hat{W}_{\min} - \hat{P} - \hat{Y})$ in expression (3). However, besides large fluctuations in GDP growth from one year to the other, two additional factors can add destabilizing features to the functional distribution of income. First, as already highlighted, the empirical studies have shown that higher minimum wages have also reduced wage disparity in the bottom and middle of the distribution, which results in a reduction in δ – the ratio of average to minimum wages – over time, thus lowering ψ . The downward trend in δ can be observed in Figure 1, which also shows that the ratio has stabilized since around 2009, suggesting a higher stability in the personal distribution of wages in the most recent period.

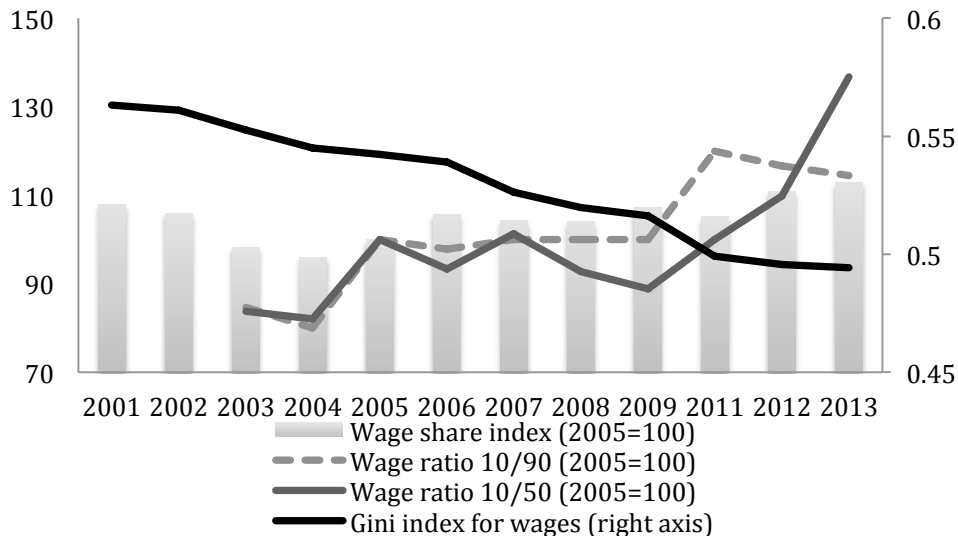
Second, the period was also characterized by high employment growth \hat{L} , which can itself be partially attributed to the process of income redistribution and the resulting increase in the demand for labor-intensive services, as will be described in section 3.3. Hence, the increase in the share of service sectors in GDP has decreased the aggregate level of labor productivity (Y/L) in the economy, boosting employment growth and increasing ψ .

Figure 1 – Evolution of the real minimum wage and the ratio between the average wage and the minimum wage in Brazil (2005=100) – 12 months moving average



Source: IPEADATA (2015)

Figure 2 – Evolution of wage share, wage ratios, and the Gini index for wages



Source: IBGE-PNAD⁹

Even if the increase in the minimum wage has an ambiguous effect in (3), Figure 2 shows the upward trend in the wage share since 2004, suggesting that higher employment growth had a more important role than the reduction in wage disparity. Figure 2 shows as well as three other measures of wage dispersion – the Gini index for labor income and the ratios of the average salary at the bottom 10% to (i) the top 10% of the wage distribution, and (ii) to the median wage. What can be drawn from the joint observation of these indicators is that while the reduction in wage inequality in the bottom half of the distribution is still ongoing, the rise of lower wages relative to top salaries started to reverse since 2011, resulting in a stabilization of the Gini index. In other words, the faster growth of top salaries relative to lower wages may explain the stagnation of the minimum-to-mean wage ratio in recent years.

⁹ The ratios between average wages of the bottom 10% and the top 10% or 50% of the distribution have been calculated based on data from PNAD variable “Monthly income from main job for people 10 years or older”, excluding individuals with null income and missing values.

2.2. The bottom and the top

Even if the minimum wage policy was the main instrument of income redistribution, some income transfer programs played an important role and should not be overlooked¹⁰. Prominent among them is a conditional cash-transfer program named *Bolsa Família*¹¹. Lena Lavinas (2013: 25-26) provides a good summary of it:

“Initially introduced in 2003, the *Bolsa* was formally established by law in January 2004, during Lula’s first term. The programme aims to ensure a minimum monetary income to poor and indigent families (...). Rather than providing a single benefit, the programme has flexible parameters, adjusting the amount according to the composition of recipient families. (...) In order to receive the monthly stipend, families are required to make regular visits to health clinics—aimed especially at pregnant or breastfeeding women, and children under five—and to ensure children between the ages of 6 and 17 have a minimum 75 per cent school-attendance record.”

It can be argued that *Bolsa Família* is the culmination of a series of efforts that go back to the Brazilian Constitution of 1988 of creating a national system of social protection. In the mid-1990s, some municipalities started adopting conditional cash-transfer programs, soon followed by the Federal Government.¹² *Bolsa Família* represented, thus, an immense effort of coordinating these initiatives and a successful attempt at expanding its reach to all Brazilian families considered poor (Soares and Sátyro, 2009: 7-10)¹³.

The coverage of the program increased from around 6.5 million families in 2004 to around 14 million in 2012, stabilizing at that level since then, reaching around one forth of the Brazilian population¹⁴. Its budget size increased in tandem, from 0.23 per cent of the GDP in 2004 to 0.47 per cent in 2012, but it remains small compared to other social transfers (Dos Santos, 2013: 223). Although the program has widespread support and is defended across the political spectrum, it still has some weaknesses in its

¹⁰ Available estimates (Barros et al., 2010, Calixtre, 2014) suggest that about half of the fall of the Gini index observed in Brazil since the early 2000s was caused by the changed distribution of labor income. It is clear that the minimum wage policy played an important role in that. But the contribution of the minimum wage to declining inequality was not restricted to this channel, since by indexing pensions and other transfers it also contributed to reducing the inequality of non-labor income (Lustig et al., 2013: 136)

¹¹ For a detailed description of the program, including varied assessments of its impacts, see Campelo and Néri (2013). See also Soares and Sátyro (2009). A critical analysis in English of the recent surge of conditional cash-transfer programs, which includes an examination of *Bolsa Família*, is provided by Lavinas (2013).

¹² Conceptually, there was a shift from a social protection approach to conditional cash-transfer programs in the 1990s. The previous, based on the idea of solidarity, sees the benefits as a right. The latter sees the programs as instruments to stimulate the accumulation of human capital by the poor and tend to put great emphasis on the conditionalities. See Soares and Sátyro (2009) and Lavinas (2013).

¹³ The actual lines of poverty and indigence (or extreme poverty) are periodically adjusted. Currently, households with a monthly per capita income below R\$ 77,00 (roughly, \$20 dollars) are considered indigent and those with income between R\$77,00 and R\$ 154,00 (roughly, \$40 dollars) are considered poor.

¹⁴ Data from *Relatório de Informações Sociais, Ministério do Desenvolvimento Social e Combate à Fome* (Social Information Report, Ministry of Social Development and Fight Against Hunger), available at <http://aplicacoes.mds.gov.br/sagi/Riv3/geral/relatorio.php#>.

design. First, the value of benefits and the income eligibility criteria are not formally indexed to any indicator of inflation. They have been adjusted periodically, but there is no guarantee that they will continue to be so. Second, its benefits are not considered a right and its transfers can be subject to budgetary restrictions, in contrast to unemployment benefits or pensions, for example (Soares and Sátyro, 2009: 11, 13).

Such a targeted income transfer program has, of course, a direct impact on the level of income inequality. Most recent analysis of the distribution of the benefits shows that 50 per cent of the total value of *Bolsa Família* benefits go to the poorest 15 per cent of the households, while 90 per cent of it go to the poorest 45 per cent (Hoffmann, 2013: 209). It is much more progressive, in this sense, than the other federal transfers or the pension system. It is, however, difficult, given data limitations, to measure its specific impact on some indicator of inequality, like the Gini index. Consequently, most available studies attempt to identify the combined impact of government transfers, using a varied array of techniques and suggesting that a significant share of this total impact should be attributed to *Bolsa Família*. This kind of estimate has been repeated periodically, with relatively consistent results. Government transfers seem to have been responsible for something between 17 and 40 per cent of the total reduction in the Gini index observed since 2003 (Barros et al., 2010; Hoffmann, 2013; Calixtre, 2014).¹⁵

Placing too much emphasis on the trajectory of an indicator like the Gini index and overlooking the dynamic of top incomes would mean, however, disregarding the important shift in the debate about income inequality stimulated by the publication of Piketty's (2014) book. It is possible, according to this burgeoning literature, that the trajectory of inequality is biased by a synthetic indicator like the Gini index, which gives a small weight to the share of income appropriated by the richest part of the population. Moreover, the main source of inequality studies, household survey data, tends to underestimate the income appropriated by the rich, biasing even further the analysis of inequality.

Particularly in the Brazilian case, there are many reasons to suspect that this sort of bias is present in most of the inequality studies. First, different sources, like Census data, indicate that a much larger share of income went to the top percentile (around 18 per cent, instead of the 12 per cent found in household surveys, according to Dedecca, 2014) and that this share has remained stable from 2000 to 2010. Second, the growing adoption of redistributive policies since 2003, like the minimum wage policy and the income transfer programs, were not accompanied by a significant transformation of the institutions that contribute decisively to the reproduction of inequality at its obscene level. The lack of reform of the tax system is a good illustration. Persistently high interest rates are another.

Very strong evidence that these suspicions were warranted came forth in the summer of 2014, when the first studies that had access to Brazilian tax data were published. Tax data is, of course, the main source of the top incomes literature that Piketty and his co-authors have been producing since the early

¹⁵ Their impact on poverty was much larger, but analyzing it is beyond the scope of the present paper.

2000s and, despite its limitations, it is considered to be a more reliable source than household surveys. These studies on Brazil indicate that the share of income appropriated by the top percentile was even larger than the one calculated from Census data, oscillating around 25 per cent of total income, from 2006 to 2012 (Medeiros et al., 2015a). With the top percentile receiving one forth of total income throughout this period, there would need to be a very large redistribution of income within the remaining 99 per cent of the population for inequality to fall significantly. An attempt to combine tax data with household survey data in order to calculate synthetic indicators of inequality suggest precisely that inequality, measured by the Gini for instance, has not fallen in this period (Medeiros et al., 2015b)¹⁶.

These results are still too recent and any conclusions derived from them should be considered preliminary. The reasons for the stability of the share of income appropriated by the rich have not yet been analysed, but a few hypotheses can be formulated. Rising top incomes are mostly attributed, according to Piketty, to the fast accumulation of wealth allowed by high interest rates (higher than growth rates), to increasing salaries for top management and to the reversal of the progressive nature of the tax systems of some rich countries. While there are not many studies on top salaries in Brazil, there is abundant evidence that the Brazilian tax system is much less progressive than that of most countries (Silveira et al., 2013; Higgins and Pereira, 2014), and Brazilian real interest rates have long been considered a national idiosyncrasy, being much higher than everywhere else. Moreover, the share of income appropriated by the top percentile in Brazil's largest and richest city, São Paulo, has increased from around 13 per cent to just over 20 per cent, between 2000 and 2010, according to Census data (Prefeitura de São Paulo, 2014: 4). This might be explained by the very steep increase in real estate prices observed in the last decade, something that may have contributed to the stability of top incomes.

Be that as it may, it would probably be an overstatement to simply dismiss the earlier findings about falling inequality, given these recent results. The redistributive policies mentioned above and the consequences for the labor market of the higher economic growth observed in the second half of the 2000s certainly entailed a reduction of the dispersion of the wage distribution, reducing wage inequality. The trajectory of the functional distribution probably pointed in the same direction. And the effect of these changes for the labor market, for aggregate demand, and for the structure of the economy should not be disregarded. But the share of income going to those in the top of the distribution is so large that it overcasts these phenomena and it makes somewhat naïve any attempt to reduce inequality without putting in question the structures that reproduce the power of the rich.

2.3. Macroeconomic policies

¹⁶ A study published in 2007 argued that household survey data might underestimate the level of inequality, but probably did not distort its trajectory (Barros, Cury and Ulyssea, 2007). With hindsight, this conclusion appears to have been overly optimistic.

As will become clearer in the next two sections, a brief discussion of the macroeconomic policy framework implemented in Brazil during the past decade is also crucial for the understanding of a few aspects concerning the patterns of growth and distribution undergone by the Brazilian economy since 2003.

While the two Lula administrations (2003-2010) have broadly kept the so-called macroeconomic tripod based on inflation targeting, floating exchange rates and a high target for the primary surplus, Dilma Rousseff took over in 2011 and nominated a more dovish president for the Brazilian Central Bank. Even if real interest rates had been gradually falling since about 2005, they were still very high for international standards before 2011, helping attract capital flows and leading to a worrisome appreciation of the exchange rate (see Table 1, below)¹⁷. In fact, as described by Barbosa-Filho (2008), the exchange rate was used as a nominal anchor for price stabilization since the implementation of the inflation-targeting regime in 1999, which can be explained by the well-known obstruction of more standard monetary policy channels in the country (Barboza, 2015).

In the first years of Rousseff's government, the Central Bank opted for a sharp reduction in the policy interest rate, which itself contributed to a strong devaluation of the Brazilian Real¹⁸. Going further, the government reduced interest rate spreads in public commercial banks, which passed over to the rest of the financial system through competitive pressures. At the same time, monetary authorities imposed macroprudential measures aiming at slowing down more risky credit supply.

The policy shift was also clear in the fiscal stance. With the help of the commodity price boom and the high growth rates of the economy, the Lula government was able to increase public investment and other components of public spending while raising tax receipts and reducing sovereign (domestic and foreign) debt as a share of GDP. Rousseff, on the contrary, produced a 1% increase in the primary surplus in her first year, and stabilized the share of public investment in GDP throughout her entire administration. However, after growth decelerated, different attempts by the government to stimulate private investment led to a substantial deterioration of the fiscal stance and to an increase in gross public debt (Table 1). Among these attempts is a cut in payroll taxes – first in a few industries and then extended to most of the economy –, the reduction in energy tariffs, and the transfer of high-yield Treasury bonds to the development bank for the provision of long-term financing at (lower) subsidized rates. Finally, while the substantial accumulation of international reserves throughout the entire period has helped monetary authorities in the absorption of shocks to the exchange rate¹⁹, this policy also had a fiscal cost, as these reserves yield a lower interest rate than the Brazilian treasuries issued to finance them.

¹⁷ See Carneiro and Rossi (2012) for a good description of the interest rate-exchange rate nexus in Brazil, which works both through traditional carry trade operations and arbitrage activities in the futures markets.

¹⁸ The exchange rate to the dollar has devalued 45% in real terms between 2011 and 2014, a result not only of the decreasing interest rates, but also of some regulations imposed on the foreign-exchange market and of the reducing international liquidity following the aggravation of the crisis in Europe. See Cagnin et al. (2013).

¹⁹ The Brazilian Central Bank has increasingly made use of exchange rate swaps to prevent strong devaluations of the Brazilian currency following the tapering of the FED quantitative easing policies and other shocks in international financial markets.

3. Growth and distribution in Brazil

In order to examine in more detail the effects of this process of redistribution on the Brazilian economy, we will analyse some of the main components of aggregate demand before turning, in the next section, to the discussion of their interactions and the concept of demand regimes.

3.1. Consumption, personal inequality, and household debt

In standard neo-Kaleckian growth models (Dutt, 1984; Taylor, 1985; Bhaduri and Marglin, 1990; Blecker, 2002), aggregate consumption is simply a function of current income and, given different saving propensities between workers and capitalists, of the functional distribution of income. Since workers have higher average propensity to consume than capitalists, an increase in the wage share increases consumption. Two main extensions have been proposed to this formulation, one relating to the personal income distribution and the other, to the role of consumption credit. Regarding the former, it has been suggested that shifts in it might also have an impact on consumption, even if the functional distribution of income is stable (Carvalho and Rezai, 2015; Palley, 2015). This result is explained by the fact that workers that earn relatively higher wages tend to have a propensity to consume lower than that of low-wage workers and, thus, reducing wage inequality can be shown to have a positive impact on the average propensity to consume²⁰.

The attempt to integrate consumption credit in the standard model is, in its turn, mainly a reaction to the fact that, in most rich countries, consumption has grown in the last decades despite an increasing profit share. The usual explanation given for this is that workers compensated stagnating wages by financing part of their consumption with credit. In Aldo Barba and Massimo Pivetti's (2009) words, debt functions as a "substitute for wages." The implications of integrating consumption credit into the neo-Kaleckian models are still far from settled, but they mostly deal with the potential unsustainability of a growth trajectory based on increasing levels of household debt (Dutt, 2006; Setterfield, 2014; Ryoo and Kim, 2014).

How can the Brazilian experience of the last decade be analysed in light of these theoretical formulations? On the one hand, the fast growth of aggregate consumption observed in Brazil (at least until 2010) could be partly attributed to declining wage inequality, following Carvalho and Rezai (2015). Even if the Gini index has remained stable between 2006 and 2012 when household survey and tax data are combined to calculate it (as argued by Medeiros et al., 2015b), a compression of the wage dispersion appears to be indisputable, as mentioned above. And there is clear evidence that the average propensity to

²⁰ Similar results can be found in Barba and Pivetti (2009) and Palley (2014a).

consume is lower for high-wage earners²¹. Moreover, an increasing wage share may have also stimulated aggregate consumption, as predicted by the standard model.

Aggregate consumption growth, however, decelerated from 2011 onwards, falling faster than what seems to be explained by a deceleration of the fall of inequality. In order to understand what happened, one needs to examine the trajectory of household credit. Household credit grew quickly between 2003 and 2009 and very mildly from 2010 on. The fast growth in the first period was, of course, not due to rising inequality, as in rich countries. But rather it was a product of growth in income in itself, which allowed the incorporation of a large number of relatively poorer families into the credit market, something that could be conventionally explained as a process of decreasing liquidity constraint (Stiglitz and Weiss, 1981). This was further stimulated by the gradual reduction of real interest rates, by an institutional measure that created, in 2004, what has been named *crédito consignado* (a loan with repayments automatically deduced from the borrowers' paycheck) and by the expansion of the lending by public commercial banks, especially since the 2008 crisis (Dos Santos, 2013: 194-195).

In its turn, the deceleration of the growth of household credit as a share of GDP, in 2010, can be partly attributed to some macroprudential policies adopted by the Brazilian Central Bank (Serrano and Summa, 2015). It might also have been the case that the level of indebtedness reached a level that discouraged further borrowing by household and more extension of credits by banks. In the words of de Paula, Modenesi and Pires (2015: 423): "Banks most likely became more reluctant to offer new credit because of a fear of nonperforming loans, which increased from a low of 4.5 percent (December 2010) to a peak of 5.9 percent in mid-2012. Households most likely became more reluctant to obtain new loans because of their increased indebtedness." Econometric evidence suggests that aggregate consumption responds significantly to the household credit to GDP ratio (Schettini et al., 2012), as expected, and this deceleration of the growth of credit seems to be the main reason for decelerating consumption growth.

There is another potential interaction between household debt and inequality that is rarely discussed. Given that a growing level of household indebtedness creates a growing flow of interest payments from debtors to creditors – except in the unlikely case in which the volume growth is entirely compensated by a continuously decreasing interest rate –, it is bound to have an impact on inequality, since debtors tend to be poorer than creditors. Examining the widespread increase in household debt in so-called middle-income economies (including Brazil), Paulo dos Santos (2012) argues that it might increase inequality and it is, thus, a "cause for policy concern." In his words, these growing interest flows create an "expropriatory relationship between wage earning households and banking capital, atop traditional forms of capitalist exploitation" (2012: 10). A similar point is made by Barba and Pivetti (2009: 127), who maintain that household debt makes the flow of "actual income accruing to capitalists" include also the

²¹ Data of the latest consumer expenditure survey in Brazil (Pesquisa de Orçamento Familiar, 2009) reveals that the propensity to consume over total income of the top income earners is 56%, relative to more than 100% at the lower income category and 84% in average.

“the interest that wage earners must pay on the loans they obtain.”

It is not implausible that the reliance on increasing household debt for the expansion of aggregate consumption observed in Brazil might eventually play a part in reproducing the high level of income inequality, by helping increase the share of income appropriated by the rich. That does not mean, of course, that the extension of credit to poorer households should be restrained, since it allows them access to several basic consumption products. But it should be understood as a temporary measure to compensate for the high levels of inequality, and the access to these products should eventually be guaranteed by continuously decreasing inequality, rather than by credit flows. Not to mention that part of the increase in household debt means simply a substitution of private for public provision of some products, in a deepening commodification that has questionable implications²². A good illustration of this point is the growing number of cars bought by resorting to credit, while public investment in public transportation has increased much less.

3.2. Capital accumulation in a commodity-exporting economy

In the standard Kaleckian-Steindlian investment function (see for instance Taylor, 2004), the decision to accumulate capital depends positively on an exogenous term, which may reflect the level of optimism or growth expectations by firms, on the degree of capacity utilization, and on the profit rate²³, as defined by the ratio between the money flow of profits and the value of the existing capital stock. The effect of the process of income redistribution observed in Brazil on aggregate investment depends, then, on the size of its impact on the degree of capacity utilization and on the profit share. Different assumptions about this effect will be discussed in section 4, after we examine the controversial issue of the relationship between the trajectory of the exchange rate and the decision to invest.

A devaluation of the exchange rate may play a triple role for investment: it may raise net exports by giving access to foreign markets, increasing the rate of utilization; it may raise profit margins, by allowing firms to adjust their mark-ups in a context of foreign competition; and it may reduce consumption and utilization through the negative effect on real wages²⁴. It is also true, however, that there is a trade-off between taking advantage of the devaluation to gain competitiveness or to increase profit margins, so that the two first channels may not play out fully at the same time.

²² This substitution of private for public debt is a worldwide phenomenon that has been called “Privatized Keynesianism” by Colin Crouch (2009). See also Barba and Pivetti (2009), Lavinias (2013), and Streeck (2014).

²³ In the so-called Post-Kaleckian specification introduced by Bhaduri and Marglin (1990), the profit rate is replaced by the profit share in the investment function, which allows for the possibility of profit-led investment and growth regimes, even when the level of aggregate demand is wage-led.

²⁴ These channels are studied by Blecker (2010) in a neo-Kaleckian open economy model with conflicting claims, which yields the interesting result that an economy may be wage-led domestically and profit-led overall. The model developed in Oreiro and Araujo (2013) introduces the exchange rate directly in the investment function in a quadratic term, and present econometric evidence that the current level of the real exchange rate in Brazil is below the optimal.

In the econometric study by Dos Santos et al (2015a), investment in Brazil is shown to respond significantly to two main factors: (i) the real exchange rate, and (ii) commodity prices. The first effect came out negative in the estimations, meaning that rather than stimulating investment decisions through higher foreign demand and mark-ups, a devaluation of the exchange rate tends to hinder capital accumulation. Notwithstanding its short-run character, this result generally contradicts the open economy arguments for the existence of a profit-led growth regime in Brazil.

One explanation for this evidence is that the positive effect of an appreciation on capacity utilization (through rising real wages and consumption) is stronger than its negative effects on profitability and foreign demand. Other possible explanations include balance sheet effects on firms holding foreign debt, an increase in the cost of imported inputs and capital goods, the use of the devaluation by firms to simply maintain profit margins, and the relatively low price-elasticity of net exports. Indeed, most manufacturing sectors in the Brazilian economy, as in almost all developing countries, are highly dependent on imported intermediary inputs, and particularly on capital goods, thus facing an increase in unit costs when the exchange rate devalues. It is also true that the exchange rate appreciation combined with the increase in real wages has led to a compression of profit margins in several manufacturing sectors in the 2000s, as the only way to maintain competitiveness²⁵. Finally, the last factor seems to be supported by econometric evidence presented in Dos Santos et al (2015b) and in Padrón et al. (2015), which shows a low response of both exports and imports to the exchange rate in Brazil – a result that is not very surprising given the economy's high specialization in price-inelastic primary goods and its reliance on imports that are almost absent from the domestic productive structure.

Even if it can be argued that a much higher devaluation could have worked to give the access to foreign markets and foster the development of new sectors, while also allowing for an increase in profit margins, its inflationary impact and the resulting contractionary effects²⁶ on consumption could have created negative demand effects, also reducing the profit rate. In other words, both the demand conditions and the initial level of the profit margin may matter for the outcome of any policy aiming at higher profitability and/or competitiveness. The existing trade-offs between increasing demand or the share of profits may also help explain the failure of the attempts by the government since 2012 to stimulate investment via tax cuts, which by requiring a contraction in public investment and other discretionary components of public spending in order to meet the fiscal target, have an ambiguous net impact on the average profit rate.

²⁵ Evidence presented in Carvalho and Teixeira (2015) shows a reduction in profit margins of both traditional and more complex industries between 2000 and 2009. In this context, the devaluation of the exchange rate after 2011 in Brazil has caused firms to face a much more difficult trade-off, namely between taking advantage of the devaluation to gain some competitiveness, or increasing prices to recover previous losses in profit margin without gaining much competitiveness in foreign markets, as discussed by Carvalho and Teixeira (2015).

²⁶ The contractionary effects of devaluation in a Keynesian setup have been seminally studied in the paper by Krugman and Taylor (1978).

Finally, the second component in the study by Dos Santos et al (2015a) brings an additional element to the picture. Higher commodity prices seem to have a very strong positive link with private investment in Brazil, which could be explained in different ways within the Kaleckian-Steindlian specification. Given the importance of commodities in the country's production and export structure, higher commodity prices may be capturing the impact of higher demand and profit margins on investment in these sectors, with repercussions for the whole industrial structure. Alternatively, commodity prices may be acting as a proxy for the expected growth in world demand, especially in China, thus fostering firms' "animal spirits". In either case, the recent fall in Brazilian investment and growth rates could have an external driver that goes beyond the contraction of world trade following the European crisis, namely the deceleration in Chinese demand for primary goods and the resulting fall in commodity prices since 2011.

3.3. Productive structure, distributive conflict, and inflation

When it comes to the inflationary character of the process of income redistribution in Brazil, it is noteworthy that prices of services have grown above the general consumer price index since 2005, keeping the inflation rate above the target for several years in the past decade even with the recent slowdown in economic growth. Two main channels connecting the rise in the labor share of income to the higher inflation rate in service sectors can be at work.

First, a significant increase in real wages and in the employment rate may lead to changes in the consumption pattern towards more demand for services, putting pressure on prices. This mechanism relates to the well-known Engel's Law, being in line with the evidence presented in Kravis and Lipsey (1988) of a higher income-elasticity of services relative to a basket of tradable goods. Indeed, according to the data presented in a report by the Central Bank of Brazil (Banco Central do Brasil, 2011), the share of services in household consumption increases substantially from the bottom to the top of the income distribution in Brazil. Redistribution toward wages and the reduction in wage inequality can thus be seen as responsible for the increase in the share of services in GDP from around 56 to 59% in the past decade (Table 1). However, in order for the higher demand for services to translate in a response of prices, there would be need for some kind of supply constraint, or slow response in production.

Second, higher wages can be affecting inflation in services from the cost side. This hypothesis is strengthened by two main idiosyncrasies of the service sector. The first relates to its generally non-tradable nature, which gives producers a higher power to set their desired mark-up, thus transmitting any rise in unit labor costs to prices. A second relevant factor distinguishing the service sector is its higher labor intensity. As seminally pointed out by Baumol and Bowden (1965), the costs and prices of goods with lower growth in labor productivity tend to increase faster than those with relatively fast labor productivity growth. Hence, not only due to the lack of foreign competitiveness, but also due to the higher

labor-output coefficient and slower labor productivity growth, prices of the service sector are expected to respond more strongly to a rise in wages.

Therefore, by working through the demand or the cost side, both mechanisms attribute a crucial role to the increase in average wages and to the reduction in wage dispersion for the acceleration in service inflation observed in the period. Distinguishing these channels can be quite a complex task, especially as the tightening of the labor market, which was also caused by higher demand and the increase in the share of labor-intensive services in GDP, is partially responsible for the rise in wages itself. Results arising from a disaggregated empirical study in Dos Santos et al (2014) suggest that cost pressures were more important in some sectors, while demand may have played a larger role in others. An aggregate econometric study presented in Carvalho and Giovanetti (2015) find a pass-through of around 20% from higher nominal wages to prices of services and, through the use of control variables for labor productivity or the output gap in the service sector, suggest that the cost channel has been more significant for the total impact.

What is probably more important than quantifying the role of these channels is to recognize that the process of income redistribution in a highly unequal economy creates additional challenges due to its impact on the productive structure, the dynamics of labor productivity and on the behavior of relative prices and the inflation rate. In particular, the shift in consumption toward services, a sector known for the slower gains in labor productivity, may tighten the distributive conflict affecting both the labor and the goods market, thus exacerbating inflationary pressures and contributing for the lack of competitiveness of manufacturing sectors.

4. Demand regimes?

Having reviewed the recent trajectory of income distribution in Brazil and having examined its potential impacts on consumption, investment, and the productive structure, it is time to move to the task of bringing these pieces together in order to shed light on the debate about the growth model. From a demand-driven macroeconomic perspective, the neo-Kaleckian literature distinguishes between two possible demand (or growth) regimes in an economy, a wage-led and a profit-led one (Dutt, 1984; Taylor, 1985; Bhaduri and Marglin, 1990). The issue concerns the impact of the functional distribution of income on investment and on consumption. If the negative impact of a rising wage share on investment (through the profitability term of the investment function) is strong enough to compensate its positive impact on consumption (through the different saving propensities), aggregate demand will be profit-led. In the opposite case, it will be wage-led. In an open-economy context, if net exports are inversely related to the wage share (through the impact of the latter on competitiveness), there is a higher chance that the demand regime will be profit-led overall, even if it is wage-led domestically (Blecker, 2010).

Given that, in Brazil, the wage share has risen since 2004 and that the growth rate has accelerated at least until 2010, it is not surprising that some would put forward the interpretation that the Brazilian economy is wage-led (Serrano and Summa, 2012b).²⁷ More concretely, the higher rates of consumption and investment growth achieved between 2004 and 2010, and particularly the fast recovery of the economy after the 2008 crisis, are interpreted as a proof of the success of a wage-led growth strategy coupled with other expansionary policies (Serrano and Summa, 2012b). This position questions the widely held view that the recent Brazilian growth model was consumption-led, since in a wage-led demand regime consumption and investment stimulate one another instead of competing among themselves.²⁸ And, in fact, the two components of aggregate demand have grown together in most years in the period, even if investment has larger fluctuations. Further, as Table 1 below shows, the average growth of investment was higher than that of consumption in the period. After 2011, there was a deceleration in both consumption and investment growth, with investment actually falling in recent years. As a consequence, the average growth rate in real GDP, which was 4.05% in the period 2003-2010, dropped to 2.14% in 2011-2014, and is expected to surpass -2% in 2015.

This recent downturn, however, raised some questions to this interpretation, especially given the fact that the wage share has continued to increase after 2010 (at least until 2013, which is the last year for which there is data available). And it also opened the field to an alternative view, formulated by Bresser-Pereira and Gala (2008), Bresser-Pereira (2012), and Oreiro et al (2012). They claim that the distribution-led strategy based on the expansion of consumption has relied on foreign savings and the “chronic” appreciation of the exchange rate, which has itself led to a leakage of the higher domestic demand toward imports and the loss of competitiveness of manufacturing exports, and consequently to a process of deindustrialization with deterioration of the current account balance. According to these authors, the economic downturn post-2011 has signaled the failure of the wage-led, or the consumption-led, growth model, with the solution being a strong devaluation of the exchange rate. The devaluation would help the recovery of profit margins and the access to foreign markets, which are both seen as essential for stimulating investment decisions. Even if the authors do not use this particular terminology, it is not a stretch to read these interpretations along profit-led lines, as the argument only works if the positive effect of increasing the profit share on investment and net exports more than offsets the fall in consumption. Further, the contraction in real wages that would follow the devaluation is seen by the authors as temporary, as higher investment and productivity growth would lead to higher wages in the medium-run.

²⁷ As Blecker (2002) clarifies there is a difference between a demand regime and a growth regime. But, given the widespread presence of idle capacity (not only in Brazil), it is difficult to question that growth is crucially determined by aggregate demand.

²⁸ Dos Santos (2013: 183, fn. 4) has recently raised this point: “in a growing economy below full employment it is perfectly possible to simultaneously increase household consumption and the investment rate. It is not surprising, thus, that many critics of the growth strategy adopted since Lula’s government work, explicitly or implicitly, with the hypothesis that the Brazilian economy is (or was) operating at full employment – despite the fact that available evidence (for instance, falling unemployment year after year and low women participation rates) do not authorize this conclusion.”

The problem with the latter interpretation is that, as described in section 2.3, Dilma's first term was marked by a policy shift aiming precisely at raising profit margins, which happened through the reduction of the policy rate and the interest rate spreads, the devaluation of the exchange rate, and cuts in payroll taxes and energy prices. If the demand regime was profit-led, one should expect all these measures aimed at boosting profitability to raise investment and aggregate demand. But, after growing from around 16 to 21 percent between 2006 and 2010, the investment rate stabilized from 2011 to 2013 and fell in 2014. And economic growth, as already mentioned, decelerated.

The authors that defend the wage-led demand argument maintain that this deceleration was precisely driven by the shift in the macroeconomic policy mix in a context of slow growth in the rest of the world, which followed the aggravation of the European crisis (see Summa and Serrano, 2012a; 2015). Moreover, the inflation rate, which in Brazil largely responds to exchange rate devaluations, also picked up during this period, slowing down real wage and consumption growth. In the absence of both domestic and foreign demand injections, the subsequent fall in investment could thus be understood through the effect of a lower capacity utilization on the decision to accumulate capital in a wage-led economy. It is also true, however, that there was a monotonic increase in the penetration of manufactured imports between 2009 and 2014, as well as a deterioration of the current account during the entire period. Serrano and Summa (2015) argue that the increase in imports are a consequence of the increase in the investment rate, not of the exchange rate appreciation²⁹, thus neglecting the role of the external sector in the explanation of what they consider to be a policy-driven growth deceleration.

It is not our purpose here to defend either of these views. It seems more interesting to examine the limits of both in order to question the concept of demand regime in itself. It is undeniably important to stress the relationship between income distribution and aggregate demand, but restricting the debate to the stark distinction between two mutually-exclusive demand regimes seems misleading. The analyses of the trajectory of consumption, investment, and the productive structure sketched in the previous section point to relevant issues that are being abstracted in this debate between wage-led and profit-led regimes³⁰.

One of them is the issue of the personal distribution of income. As suggested above, the process of income redistribution taking place in Brazil has both raised the wage share and reduced wage inequality, changing the personal distribution of income. Carvalho and Rezai (2015) show that shifts in the personal distribution of income can raise aggregate demand, even in the case of a profit-led economy. Bearing that in mind, one should not ignore the possibility that a crucial driver for growth acceleration until 2010 was precisely the change in the personal distribution of income, independently of the shift in the functional distribution. Further, this could also be behind the downturn after 2010, given that the fall in wage

²⁹ Indeed, Dos Santos et al (2015b) and Padrón et al (2015) present econometric evidence of a relatively low price-elasticity of imports and exports in Brazil, respectively, using sectoral data.

³⁰ A similar classification of the policy debate in Brazil opposes so-called new-developmentalists and social-developmentalists. The former generally argue in terms of a profit-led regime, whereas the latter tend to spouse the wage-led interpretation. See Bastos (2012) and Amado and Mollo (2015).

inequality has decelerated around that time³¹. Hence, a focus on the personal distribution of income, unduly neglected by most Kaleckian interpretations, sheds light on a particularly important development that may partially explain the acceleration until 2010 and the following downturn.

A related issue concerns the non-neutrality of redistributive policies. By taking the functional distribution of income as exogenous, standard neo-Kaleckian models rarely examine in detail the policies that could shift it. As stressed by Blecker (2010), however, different types of shock may have different effects on the components of aggregate demand and on longer-run growth in an open economy setup. As the author demonstrates, an exchange rate depreciation leading to a higher profit share plays a direct role for net exports, having different implications for aggregate demand than a reduction in the bargaining power of workers, for instance. In this context, it is also possible to conceive policies that would lead to a rising wage share, but that would have no (or little) impact on wage inequality, as may be the case of the exchange rate appreciation itself. If those were implemented, their only effect on aggregate demand would of course be through the functional distribution. But, if the shift in the latter was also, to a large degree, the result of a minimum wage policy, as seems to be the case in Brazil, then it would be wrong to dismiss its simultaneous impact on wage inequality and the higher effect on consumption spending arising from this channel.

These considerations relate to a deeper critique recently made by Palley (2014b) to the numerous empirical attempts to identify countries' demand regimes econometrically. As the author highlights, demand regimes may be endogenous and subject to policy influence. In particular, the policies that reduced the labor share of income in advanced economies over the past twenty years may have made these economies appear profit-led in some of these estimations, even if raising wages now would still produce a positive effect on capacity utilization and growth. This may also help explain the apparent contradiction between previous econometric results showing Brazil as profit-led overall (Araujo and Gala, 2012), and the achievement of higher rates of growth with an increasing wage share in the recent period.

Another issue is the potential presence of non-linearities in the relationship between the functional distribution and aggregate demand, as highlighted in Taylor (2004) and Nikiforos and Foley (2012). Indeed, from a logical standpoint, it seems implausible that the growth rate of an economy would be maximized at a wage share equal to zero or 100%. The possibility that the response of investment to the profit share and/or of consumption to the wage share is non-linear could be important in understanding the contrast between 2004-2010 and 2011-2014. One hypothesis is that the rising wage share gradually squeezed profit margins to the point of leading to a switch in the Brazilian economy's demand regime. Until 2010, wage-led demand prevailed, since the profit margins, despite falling, were still sufficiently

³¹ This is just a very preliminary hypothesis, since the data on the wage distribution is somewhat ambiguous and requires further investigation. It seems, in any case, that low wages went on catching up with the average wage until 2013, but the share of wages appropriated by the top wage earners increased and led to a stagnation of the index of wage inequality. See Figures 1 and 2, above.

large to encourage increasing investment. But around that time, profitability may have been squeezed down to a level in which firms were no longer willing to invest, explaining the stagnation of the investment rate observed since 2011. According to this hypothesis, Rousseff would have inherited from Lula an economy that, due to the ongoing process of income redistribution, had turned profit-led.

Finally, there is the issue of the sectoral implications of growth and distribution, as illustrated by the growth of services and the related acceleration of inflation, examined in section 3.2 above. An important limitation of most Kaleckian literature is its complete disregard for sectoral heterogeneity, due to its overwhelming reliance on single-good models (Steedman, 1992). It is relatively uncontroversial that the manufacturing sector in Brazil is losing weight in the economy's value added and employment, and it is, at least, puzzling that the dynamic implications of this process are of no concern to the authors in the wage-led camp.

While the regressive specialization of the productive structure can be a very slow process, having started in Brazil during the long period of stagnant domestic demand in the 1980s and 1990s, an excessively overvalued exchange rate has probably not helped reverting this trajectory. Even if the short-run effects of an exchange rate appreciation may be positive through higher real wages and investment (Dos Santos et al., 2015a), while current exports and imports seem to be relatively price-inelastic, its implications for the long-run productive structure are harder to assess³². The economic history of Brazil should at least make one aware of the risks of relying too much on exports of soy and iron ore. And the impact of a lower share of manufacturing on the potential of increasing labor productivity on a longer horizon should be a matter of concern. This does not mean, however, that an exchange-rate devaluation should be sought, as proposed by the economists in the profit-led camp, but maybe there should be an effort to at least take advantage of the market-driven ones, rather than keeping skyrocketing interest rates for price stabilization purposes.

This is far from an exhaustive discussion of the issues that are potentially relevant to examine the interaction between growth and distribution in Brazil. And all the hypothesis referred to above are very preliminary and each requires further investigation. But they may suffice, on the one hand, to make the point that a fruitful use of the Kaleckian models to shed light on particular historical developments must go beyond the simplification involved in the debate around the existence of stable demand regimes. And, on the other hand, they represent an attempt to suggest productive areas of extensions for this literature, drawing on the Brazilian case. The belief in the importance of this back-and-forth movement between abstract theories and concrete cases as a way of increasing our understanding of economic phenomena was the starting point of this exercise.

³² The different time horizons in the response of the different components of aggregate demand to changes in income distribution have also been the subject of recent criticism by Blecker (2015) to the standard neo-Kaleckian theory and applications.

5. Wither Brazil

The recent shift in Brazilian economic policy towards austerity is endangering the combination, however fragile, of high economic growth and income redistribution that has been the object of the present paper. The impact of the present recession in the labor market has been astounding, reversing part of the gains, in terms of wages and employment, obtained in the last decade. But, if we are allowed a glimmer of hope, this process has had at least the benefit of stimulating several interpretations of the recent past, allowing the debate to reach a more sophisticated level. Besides suggesting potentially fruitful areas for further theoretical research, this paper has intended to give a modest contribution to this debate around the recent trajectory of the Brazilian economy.

What demands explanation, as already mentioned, is the contrast between the prosperity observed from 2004 to 2010 and the downturn since 2011. On the one hand, the wage-led camp roughly explains the first period a successful vindication of wage-led policies and the downturn as a “policy-induced slowdown” (Serrano and Summa, 2015), given that policies to stimulate demand were discontinued (as indicated by the stagnation of household credit and of public investment) and the devaluation of exchange-rate accelerated inflation and contained real wage growth. External factors play only a minor role in some of these interpretations. The profit-led camp, on the other hand, interprets the prosperous phase as an unsustainable growth spurt that could only take place because of the commodities boom. The downturn represents the reality shock brought about by the end of the boom and points towards the profit-led character of the Brazilian economy’s demand. Despite the fact that many of the policies adopted since 2011 were aimed at improving profit margins, they maintain that they were unsuccessful because they were insufficient (especially, the currency devaluation).

True to our suspicious attitude toward stable demand regimes, we are not convinced by these alternative narratives. We agree with the claim that the sustainability of the prosperity was open to question, and that the policies in place until 2010 would probably not bring continuous growth and inequality reduction if they were simply kept in place. Arguing otherwise seems unduly optimistic. But we also think that this unsustainability was not caused by an underlying stable profit-led regime and, most importantly, we think that the profit-led interpretation of the policies since 2011 as insufficient is seriously misleading. The present argument is that the nature of the unsustainability of the prosperity, the reasons behind the downturn and the future prospects of inclusive development in Brazil requires going beyond the discussion of demand regimes and analyzing the specific interaction of actual policies.

According to this reading, growth acceleration since 2004 was crucially aided by the redistributive policies that resulted in an increasing wage share and a decreasing wage inequality and, in this way, stimulated growing consumption, increasing capacity utilization, and rising investment. The role of household credit reinforcing the connection between redistribution and consumption growth was also

significant. And the external impulse given by the commodities boom cannot be discarded, not only because it might have helped increasing investment in related industries, but also because, by appreciating the exchange-rate, it reconciled redistribution and stable prices (compensating for service sector inflation).

This virtuous process could not be sustained in the long run for several reasons. First, the redistributive policies had an important impact on inequality but had a limited scope, since they did not address the structures that reproduce the power of the rich. Focalized transfers and an increasing minimum wage can only go so far, if they are not complemented by a profound reduction of the regressive aspects of the Brazilian tax system and by a reduction of the immense share of the public budget that is transferred to the top deciles of the income distribution in the form of interest payments on public debt. Accelerating growth required continuously decreasing inequality, and *Bolsa Família* and the minimum wage policy could not deliver that, as suggested by the fact that, around 2011, both wage and overall inequality seem to have stabilized.

The timidity of the inequality reduction effort also explains why growing consumption demanded increasing household debt, which by itself poses sustainability questions. As mentioned above, this rising debt might have reached a ceiling around 2010, when the level of indebtedness of households appears to have discouraged further growth of consumption credit. In addition, this strategy in itself might complicate the reduction of inequality, by tilting the scales between lender and borrowers.

A complementary source of unsustainability comes from the distributive conflict and the productive structure. The growth of the service sector and the ensuing downward pressure on aggregate labor productivity makes the distributive conflict more acute, something that was attenuated until 2010 by an appreciating currency. But relying on a commodities boom to alleviate the distributive conflict is perilous in itself, and becomes even more serious once the longer-term effects of an appreciated currency are factored in. Relying on the short-term benefits of a rising *real* has reduced the potential of the productive structure to generate productivity growth and, thus, has turned the distributive conflict into an even more difficult one to solve.

If those sources of unsustainability are correctly identified, it becomes clear that the policy shift observed since 2011 did not address them. Increasing profit margins, which was the main thrust of such policies, could not contribute to make the strategy of inclusive development more sustainable. In fact, by contributing to the deceleration of growth and the acceleration of inflation they are partly to be blamed for the current about-face that threatens Brazil with deep regression. The required tasks, in contrast, involved radicalizing the redistributive policies, addressing the tax system and the high level of the interest rate. It also entailed bringing to the fore the policies to diversify and strengthen Brazil's productive structure, instead of subordinating the industrial policy to short-term macroeconomic policy and passively observing continuous regressive specialization.

These challenges, if technically conceivable, would be very difficult to meet politically³³. Between 2003 and 2010, the political strategy has been characterized by avoiding conflicts at all costs. From 2011 onwards, a noticeable change takes place and powerful interests are challenged by some policies executed by the government. This, however, was done without parallel social mobilization, in an example of Left-wing voluntarism. If the objective is to design and implement an inclusive development strategy that can survive beyond the conditions of a foreign bonanza, this political challenge is unavoidable. Democratizing the Brazilian state seems the indispensable political basis of a sustainable distribution-led growth regime.

Table 1 – Selected variables for Brazil in the period 2003-2014 and sub-periods

Variables / Average in the period	2003-2014	2003-2010	2011-2014	Data Source
Nominal Yearly Policy Interest Rate (SELIC)	13.01%	14.64%	9.80%	IPEADATA
Real Effective Exchange Rate - Exports (2005=100)	95.59	86.41	113.95	IPEADATA
Real Yearly GDP Growth	3.41%	4.05%	2.14%	IBGE
Real Yearly Consumption Growth	4.06%	4.53%	3.11%	IBGE
Real Yearly Investment Growth	5.11%	6.69%	1.93%	IBGE
Real Yearly Exports Growth	4.62%	6.13%	1.59%	IBGE
Real Yearly Imports Growth	9.53%	12.21%	4.15%	IBGE
CPI Yearly Inflation Rate	5.91%	5.78%	6.17%	IPEADATA
CPI Yearly Inflation - Services	7.22%	6.48%	8.72%	IPEADATA
Net Public Debt (% of GDP)	41.94%	46.03%	33.76%	BCB
Yearly Primary Surplus (% of GDP)	2.61%	3.12%	1.59%	BCB
Unemployment Rate	8.11%	9.45%	5.43%	IPEADATA
Current Account Balance (% of GDP)	-1.02%	0.01%	-3.08%	IPEADATA
Services (% of GDP)	58.2%	57.13%	59.25%	IBGE

5. References

- AMADO, A.; MOLLO, M. L. R. (2015). The ‘developmentalism’ debate in Brazil: some economic and political issues. *Review of Keynesian Economics*, v.3, n.1, pp. 77-89.
- ARAÚJO, E.; GALA, P. (2012). Regimes de crescimento econômico no Brasil: evidências empíricas e implicações de política. *Estudos Avançados*, v. 26, n. 75, pp. 41-56.
- BACHA, E.; TAYLOR, L. (1978). Brazilian income distribution in the 1960s: ‘facts’, model results and the controversy. *Journal of Development Studies*, v. 14, n. 3, pp. 271-297.
- BANCO CENTRAL DO BRASIL (2011). Pressões de demanda e de custos sobre os preços de serviços no IPCA. *Relatório de Inflação*, v. 13, n. 2, junho de 2011. Brasília: Banco Central do Brasil.
- BARBA, A.; PIVETTI, M. (2009). Rising household debt: its causes and macroeconomic implications – a long-period analysis. *Cambridge Journal of Economics*, v.33, n.1, pp. 113-137.
- BARBOSA-FILHO, N. (2008). Inflation targeting in Brazil: 1999-2006. *International Review of Applied Economics*, v. 25, n. 2, pp. 127-148.
- BARBOSA-FILHO, N.; SOUZA, J. A. P. de (2010). A inflexão do governo Lula: política econômica, crescimento e distribuição de renda. In: SADER, E.; GARCIA, M. A. (eds.). *Brasil entre o Passado e o Futuro*. São Paulo: Fundação Perseu Abramo / Boitempo, pp. 57-110.
- BARBOZA, R. M. (2015). Taxa de juros e mecanismos de transmissão da política monetária no Brasil. *Revista de Economia Política*, v.35, n.1, pp. 133-155.
- BARROS, R. P., CARVALHO, M., FRANCO, S., MENDONÇA, R. (2010). Determinantes da queda na desigualdade de renda no Brasil. *IPEA Texto para Discussão*, n. 1460.
- BARROS, R. P., CURY, S., ULYSSEA, G. (2007). A desigualdade de renda no Brasil encontra-se subestimada? Uma análise

³³ The non-linearity in the previous section might have, above all, a political nature. After almost a decade of redistributive policies and falling profit margins, it is plausible to think that the ruling interests considered that the process had gone too far. Even if an actual change of demand regime (from wage-led to profit-led) does not take place, it could be that the political support for the government is reduced and the continuation of the policies is politically challenged. A controversial interpretation of the downturn since 2011 along these lines can be found in Rugitsky (2015).

- comparativa usando Pnad, POF e Contas Nacionais. In: BARROS, R. P., FOGUEL, M., ULYSSEA, G. (eds.). *Desigualdade de Renda no Brasil: uma análise da queda recente*, v. 1. Brasília: IPEA, pp. 237-273.
- BASTOS, P. P. Z. (2012). A economia política do novo-desenvolvimentismo e do social-desenvolvimentismo. *Economia e Sociedade*, v.21, pp. 779-810.
- BAUMOL, W; BOWDEN, W. (1965). On the performing arts: the anatomy of their economic problems. *American Economic Review*, v. 55, n. 2, pp. 495-502.
- BHADURI, A.; MARGLIN, S. A. (1990). Unemployment and the real wage: the economic basis for contesting political ideologies. *Cambridge Journal of Economics*, v.14, n.4, pp. 375-393.
- BLECKER, R. (2002). Distribution, demand and growth in neo-Kaleckian macro-models. In: SETTERFIELD, M. (ed.). *The economics of demand-led growth: challenging the supply-side vision of the long run*. Northampton: Edward Elgar, pp. 129-152.
- _____. (2010). Open economy models of distribution and growth. In: HEIN, E.; STOCKHAMMER, E. (eds.), *A Modern Guide to Keynesian Macroeconomics and Economic Policies*, Cheltenham, UK: Edward Elgar.
- _____. (2015). Wage-led versus profit-led demand regimes: the long and the short of it. Paper presented at the Eastern Economic Association, New York, NY. Available at: http://nw08.american.edu/~blecker/research/Blecker_LRvsSR_EEA2015.pdf
- BRESSER-PEREIRA, L. C. (2012). Structuralist macroeconomics and the new developmentalism. *Brazilian Journal of Political Economy*, v. 32, n. 3, pp. 347-366.
- BRESSER-PEREIRA, L. C.; GALA, P. (2008). Foreign savings, insufficiency of demand, and low growth. *Journal of Post Keynesian Economics*, v. 30, n. 3, pp. 315-334.
- CAGNIN, R., PRATES, D. M., FREITAS, M. C. P. de, NOVAIS, L. F. (2013). A gestão macroeconômica do governo Dilma (2011 e 2012). *Novos Estudos Cebrap*, n. 97, pp. 169-185.
- CALIXTRE, A. (2014). Nas fronteiras da desigualdade brasileira: reflexões sobre as décadas de 1990 e 2000. *Friedrich Ebert Stiftung Brasil*.
- CAMPELO, T., NÉRI, M. (eds.) (2013). *Programa Bolsa Família: uma década de inclusão e cidadania*. Brasília: IPEA.
- CARNEIRO, R.; ROSSI, P. (2012). The Brazilian experience in managing the interest exchange rate nexus. *Textos para Discussão Instituto de Economia*, 206, UNICAMP.
- CARVALHO, L.; GIOVANNETTI, L. F. (2015). Distribuição de renda, mudança estrutural e inflação de serviços no Brasil. *Mimeo*.
- CARVALHO, L.; REZAI, A. (2015). Personal income inequality and aggregate demand. *Cambridge Journal of Economics*, Advance Access.
- CARVALHO, L.; TEIXEIRA, L. (2015). Câmbio e competitividade da indústria brasileira: uma análise de insumo-produto. In: *Indústria e Desenvolvimento Produtivo no Brasil*; Barbosa, N.; Marconi, N.; Pinheiro, M. C.; Carvalho, L. (Orgs.); Rio de Janeiro: Elsevier.
- CROUCH, C. (2009). Privatised Keynesianism: an unacknowledged policy regime. *British Journal of Politics and International Relations*, Vol. 11, pp. 382-399.
- DEDECCA, C. (2014). A queda da desigualdade de renda corrente e a participação do 1% de domicílios de maior renda, 2000-2010. *Revista de Economia Política*, v.34, n.2, pp. 249-265.
- DINARDO, J.; FORTIN, N.; LEMIEUX, T. (1996). Labor market institutions and the distribution of wages, 1973-1992: a semiparametric approach. *Econometrica*, v. 64, pp. 1001-1045.
- DOS SANTOS, C. H. (2013). Notas sobre as dinâmicas relacionadas do consumo das famílias, da formação bruta de capital fixo e das finanças públicas brasileiras no período 2004-2012. In: CORRÊA, V. (ed.). *Padrão de Acumulação e Desenvolvimento Brasileiro*. São Paulo: Fundação Perseu Abramo, pp. 183-241.
- DOS SANTOS, C. H.; AMITRANO, C. R.; PIRES, M. C.; CARVALHO, S.; FERREIRA, E.; ESTEVES, F. H.; YANNICK, K. Z.; LIMA, L. (2014). A natureza da inflação de serviços no Brasil: 1999-2014. *Mimeo*.
- DOS SANTOS, C. H.; MODENESI, A.; SQUEFF, G.; VASCONCELOS, L.; MORA, M.; FERNANDES, T.; MORAES, T.; BRAGA, J.; SUMMA, R. (2015a). Revisitando a dinâmica trimestral do investimento no Brasil: 1996-2012. *Texto para discussão IE-UFRJ* n. 05/2015.
- DOS SANTOS, C. H.; CIEPLINSKI, A.; PIMENTEL, D.; BHERING, G. (2015b). Por que a elasticidade-câmbio das importações é baixa no Brasil? Evidências a partir das desagregações das importações por categoria de uso. *Texto para discussão IPEA*, n. 2046.
- DOS SANTOS, P. (2012). A cause for policy concern: the expansion of household credit in middle-income economies. *International Review of Applied Economics*, v. 27, n. 3, pp. 316-338.
- DUTT, A. K. (1984). Stagnation, income distribution and monopoly power. *Cambridge Journal of Economics*, v.8, pp. 25-40.
- DUTT, A. K. (2006). Maturity, stagnation and consumer debt: a Steindlian approach. *Metroeconomica*, v. 57, n.3, pp. 339-364.
- FAJNZYLBER, P. (2001). Minimum wage effects throughout the wage distribution: evidence from Brazil's formal and informal sectors. *CEDEPLAR Working Paper*, CEDEPLAR.
- HIGGINS, S., PEREIRA, C. (2013). The effects of Brazil's taxation and social spending on the distribution of household income. *Public Finance Review*, Vol. 42 (3), pp. 346-367.
- HOFFMANN, R. (2013). Transferências de renda e desigualdade no Brasil (1995-2011). In: CAMPELO, T., NÉRI, M. (eds.). *Programa Bolsa Família: uma década de inclusão e cidadania*. Brasília: IPEA, pp. 207-216.
- KOMATSU, B. (2013). *Salário mínimo, desigualdade e informalidade*. Dissertação de mestrado apresentada ao Departamento de Economia da Faculdade de Economia, Administração e Contabilidade, Universidade de São Paulo.

- KRAVIS, I. B., LIPSEY, R. E. (1988). National price levels and the prices of tradables and nontradables. *NBER Working Paper Series*, n.2536.
- KRUGMAN, P.; TAYLOR, L. (1978). Contractionary effects of devaluation. *Journal of International Economics*, v. 8, n. 3, pp. 445-456.
- LAVINAS, L. (2013). 21st century welfare. *New Left Review*, n. 84, pp. 5-40.
- LUSTIG, N.; LOPEZ-CALVA, L. F.; ORTIZ-JUAREZ, E. (2013). Declining inequality in Latin America in the 2000s: the cases of Argentina, Brazil, and Mexico. *World Development*, v.44, pp. 129-141.
- MEDEIROS, M., SOUZA, P. H., CASTRO, F. A. (2015a). O topo da distribuição de renda no Brasil: primeiras estimativas com dados tributários e comparação com pesquisas domiciliares (2006-2012). *Dados*, v.58, n.1, pp. 7-36.
- _____. (2015b). A estabilidade da desigualdade de renda no Brasil, 2006 a 2012: estimativa com dados do imposto de renda e pesquisas domiciliares. *Ciência e Saúde Coletiva*, v. 20, n. 4, pp. 971-986.
- MENEZES-FILHO, N.; RODRIGUES, E. (2009). Salário mínimo e desigualdade no Brasil entre 1981- 1999: uma abordagem semiparamétrica. *Revista Brasileira de Economia*, v. 63, n. 3, p. 277- 298.
- MODENESI, R.; MODENESI, A.; MARTINS, N.; FONTAINE, P. (2015). Restructuring the economic policy framework in Brazil: genuine or Gattopardo change? *Revue de la regulation*, Advance Access.
- NIKIFOROS, M., FOLEY, D. (2012). Distribution and capacity utilization: conceptual issues and empirical evidence. *Metroeconomica*, v. 63, n.1, pp. 200-229.
- OREIRO, J. L.; ARAUJO, E. (2013). Exchange rate misalignment, capital accumulation and income distribution: theory and evidence from the case of Brazil. *Panoeconomicus*, v. 60, n. 3, pp. 381-396.
- OREIRO, J. L.; PUNZO, L. F.; ARAUJO, E. (2012). Macroeconomic constraints to growth of the Brazilian economy: diagnosis and some policy proposals. *Cambridge Journal of Economics*, v. 36, n. 4, pp. 919-939.
- PADRÓN, A.; DOS SANTOS, C. H.; AMITRANO, C.; RIBEIRO, F.; BHERING, G. (2015) Por que a elasticidade-câmbio das exportações é baixa no Brasil? Novas evidências desagregadas. *Mimeo*.
- PALMA, J. G. (2011). Homogeneous middles vs. heterogeneous tails, and the end of the ‘inverted-U: it’s all about the share of the rich. *Development and Change*, v. 42, n.1, pp. 87-153.
- PALLEY, T. (2014a). A neo-Kaleckian-Goodwin model of capitalist economic growth: monopoly power, managerial pay and labor market conflict. *Cambridge Journal of Economics*, v. 38, pp. 1355-1372.
- _____. (2014b). Rethinking wage vs. profit-led growth theory with implications for policy analysis, *IMK Working Paper*, n. 141.
- _____. (2015). The middle class in macroeconomics and growth theory: a three-class neo-Kaleckian-Goodwin model. *Cambridge Journal of Economics*, Advance Access.
- PAULA, L.F., MODENESI, A. E PIRES, M.C. (2015). The tale of the contagion of two crises and policy responses in Brazil: a case of (Keynesian) policy coordination? *Journal of Post Keynesian Economics*, v. 37, n. 3, p. 408-435.
- PIKETTY, T. (2014). *Capital in the Twenty-First Century*. Cambridge: Harvard University Press.
- PREFEITURA DE SÃO PAULO (2014). Persiste a alta desigualdade de renda no Município de São Paulo. *Informe Urbano*, n. 19.
- RUGITSKY, F. (2015). Austerity reaches Brazil. *Jacobin*.
- RYOO, S. AND KIM, Y. (2014). Income distribution, consumer debt and keeping up with the Joneses. *Metroeconomica*, v. 65, n. 4, pp. 585-618.
- SCHETTINI, B.; DOS SANTOS, C. H.; AMITRANO, C.; SQUEFF, G.; RIBEIRO, M. B.; GOUVÊA, R.; ORAIR, R.; MARTINEZ, T. (2012). Novas evidências empíricas sobre a dinâmica trimestral do consumo agregado das famílias brasileiras no período 1995-2009. *Economia e Sociedade*, v.21, n.3, pp. 607-641.
- SERRANO, F; SUMMA, R. (2012a). A desaceleração rudimentar da economia brasileira desde 2011. *Oikos*, v. 11, n. 2, pp. 166-202.
- _____. (2012b). Macroeconomic policy, growth and income distribution in the Brazilian Economy in the 2000s. *Investigación Económica*, v. 71, n. 282, p. 55-92.
- _____. (2015). Aggregate demand and the slowdown of Brazilian economic growth in 2011-2014. *Mimeo*.
- SETTERFIELD, M. (2014). Rising income inequality, increased household indebtedness, and Post-Keynesian macrodynamics. *The New School for Social Research Working Paper*, n. 03/2014.
- SILVEIRA, F. G., REZENDE, F., AFONSO, J. R., FERREIRA, J. (2013). Fiscal equity: distributional impacts of taxation and social spending in Brazil. *IPC-IG Working Paper*, n. 115.
- SOARES, S., SÁTYRO, N. (2009). O Programa Bolsa Família: desenho institucional, impactos e possibilidades futuras. *IPEA Texto para Discussão*, n. 1424.
- STEEDMAN, I. (1992). Questions for Kaleckians. *Review of Political Economy*, v. 4, n.2, pp. 125-151.
- STIGLITZ, J.; WEISS, A. (1981). Credit rationing in markets with imperfect information. *American Economic Review*, v. 71, n. 3, pp. 393-410.
- STREECK, W. (2014). *Buying Time: the delayed crisis of democratic capitalism*. London: Verso.
- ULYSSEA, G.; FOGUEL, M. (2006). Efeitos do salário mínimo sobre o mercado de trabalho brasileiro. *Texto de Discussão* n. 1168, IPEA.
- TAYLOR, L. (1985). A stagnationist model of economic growth. *Cambridge Journal of Economics*, v.9, pp. 383-403.
- TAYLOR, L. (2004). *Reconstructing Macroeconomics*. Cambridge, US: Harvard University Press.