

Institute for International Political Economy (IPE) Berlin

# Distributive Conflict and the End of Brazilian Economy's "Brief Golden Age"

Authors: Franklin Serrano, Ricardo Summa

Working Paper, No. 186/2022

## Editors:

Sigrid Betzelt, Eckhard Hein (lead editor), Martina Metzger, Martina Sproll, Christina Teipen, Markus Wissen, Jennifer Pédussel Wu, Reingard Zimmer

# Distributive Conflict and the End of Brazilian Economy's "Brief Golden Age"\*

# Franklin Serrano and Ricardo Summa

Institue of Economics, Universidade Federal do Rio de Janeiro

## **Abstract**

The aim of this paper is to discuss the main causes of the interruption of the process of socially inclusive growth that occurred in the Brazilian economy from the mid-2000s, which we will call the Brazilian economy's "Brief Golden Age". Our analysis is based on two central hypotheses. The first is that, for a number of structural reasons, this process generated an "undesired revolution" in the Brazilian labor market, which strengthened workers' bargaining power and generated a tendency of real wages growing more than productivity. The second is that the interruption of this process of socially inclusive growth from 2015 onwards occurred as an effect of this intensification of the distributive conflict, indirectly, by the political pressure exerted by the capitalist class (and its allies) on the government to change the economic policy stance and create conditions for the resolution of the distributive conflict in favor of capital, and not for economic or political effects acting directly on private investment.

**Keywords:** distributive conflict; induced investment; political economy; Brazilian economy.

JEL codes: B51; D30; E11; P16.

This version has been translated by the authors from the original paper published in Portuguese: SERRANO, Franklin; SUMMA, Ricardo. Conflito distributivo e o fim da "Breve Era de Ouro" da economia Brasileira. Novos estudos CEBRAP, v. 37, p. 175-189, 2018. It also includes a postscript written in July 2022. We would like to thank without implicating Ryan Woodgate for the english revision.

Contact:

Franklin Serrano: <a href="mailto:franklinserrano@gmail.com">franklinserrano@gmail.com</a>.
Ricardo Summa: <a href="mailto:ricardo.summa@ie.ufrj.br">ricardo.summa@ie.ufrj.br</a>

<sup>\*</sup>We would like to thank to the very useful comments made by Fabio Freitas, Luiz Eduardo Melin, Carlos Medeiros and Vivian Garrido Moreira. Ricardo Summa and Franklin Serrano are fellows at CNPq and would like to thank to the research support.

"Now, capitalists do many things as a class, but they certainly do not invest as a class' (Kalecki, 1967: p.455)"

## 1. Introduction

In this paper we will discuss the causes of the sudden interruption in 2015 of the process of socially inclusive economic growth experienced by the Brazilian economy since 2004. We will call this period of 2004-2014 the "Brief Golden Age" of the Brazilian economy, alluding to the similar but much longer lasting and more intense process which happened in the advanced countries after the Second World War until the beginning of the seventies.

Our analysis is based on two crucial hypotheses. First, for a number of structural reasons operating both on the supply of and demand for labor, and despite growth rates of the economy that were, on average, not too high, this process of economic growth with social inclusion generated an "undesired revolution" in the Brazilian labor market between 2004 and 2014. This undesired revolution strengthened workers' bargaining power (especially the low-skilled workers) and generated a tendency of real wages to continuously rise above productivity growth, which progressively intensified the distributive conflict and reduced profit rates and margins of the business sector.

Our second hypothesis, based on some economic and political aspects of theories developed by Garegnani, Steindl and Kalecki, points to the intensification of the distributive conflict as the main cause of the interruption of the process of inclusive economic growth since 2015, but by an indirect route. This indirect route consists of the effect of political pressure exercised by the capitalist class (and its allies) on the government to change the direction of the economic policy and to create conditions for the resolution of the distributive conflict in favor of capital, and not on the direct economic or political effect of such conflict on business investment decisions. Due to competitive pressures, even with lower profit rates and margins, non-residential private investment followed closely the evolution of the autonomous and induced components of aggregate demand which do not create productive capacity for the private sector. As social-inclusive and redistributive policies expand aggregate demand components and the internal market, the direct effect on productive investment from the income distribution was clearly expansionary during the period under analysis. It is only after the government is no longer able to withstand the political pressures and radically changes the economic

policy stance towards austerity in 2015 that aggregate demand shrinks sharply, and this is what explains the subsequent collapse of private business investment.

Our argument will proceed as follows. In section 2 we discuss the "undesired revolution" which took place in the Brazilian labor market. Section 3 presents some general theoretical reflections about the effects of changes in wage share on profit rates, output, and private business investment. In section four we argue that Brazilian economic growth was demand-led, and private business investment was induced by the evolution of the trend of the effective demand, and we critically evaluate other interpretations about the relation between distributive conflict and business investment in Brazil in that period. Finally, in section 5 we argue that, despite the rhetoric on the need of a fiscal adjustment, the radical change in the direction of economic policy regime in 2015 was a result of the government's attempt to resolve the distributive conflict in favor of capital.

# 2. The "undesired revolution" in the labor market: 2004–2014

Our central hypothesis is that an "undesired revolution" ocurred in the Brazilian labor market in the period 2004–2014, because of a sharp drop in the open unemployment rate and other social and institutional aspects which strenghtened the barganing power of workers much more than was anticipated.<sup>1</sup> This change in the overall labor market conditions was an unexpected result of the interaction of various elements which mutually reinforced themselves (Summa and Serrano, 2018).

The first was the strong increase in the real minimum wage, which grew by an average of 5% per year in the period 2000-2014 (Summa and Serrano, 2018). In Brazil, the minimum wage influences directly and indirectly both the overall conditions in the labor market and the bargaining power of workers. Moreover, as many social transfers and benefits (such as pensions and unemployment benefit) were indexed or at least connected to the minimum wage, the marked increases in the latter were very important

<sup>&</sup>lt;sup>1</sup> We borrowed this term from the book of Camargo and Ramos (1988). For these authors, a brief undesired revolution in the labor market and strengthening of formal and informal workers' bargaining power had happened in Brazil after the Cruzado Plan in 1986, because of the overall economic policy and the policy of prices control. The authors consider that this change was the main cause to the failure of the Plan because it had created an excess of aggregate demand. We instead consider that the failure of the Cruzado Plan was due to the Balance of Payments constraint in a situation of a deep external debt crisis, and not because of excessive levels of aggregate demand. In any case, the term undesired revolution in the labor market conveys very well what happened at that time. And the absence of external constraints to the recent Brazilian cycle of expansion in 2004-2014 (Martins and Rugitsky, 2018) seems to have been key to the longer duration of the second "undesired revolution" that concerns us here.

to reduce poverty rates and to improve the living conditions of working-class households. In addition, the coverage of unemployment benefits and other social transfers were much increased among the population. All these factors together markedly influence low-skilled workers' bargaining power and their minimum acceptable standards of pay and working conditions and also their decisions regarding labor supply.

The direct effect of minimum wage increases on wages operated through a number of transmission channels. First, there are some direct positive contractual impacts on some public sector employees and formal private sector workers that have wages directly set at the minimum wage or multiples (or fractions for part time work) of it. Second, the 'lighthouse effect' on informal urban and rural workers' wages and for informal personal services (such as domestic workers), in which the minimum wage (or a fraction) is a well accepted and established social convention used as a reference for bargaining with employers (Medeiros, 2015).

The rise of minimum wage also has other positive indirect effects, that operate by increasing the average income of informal self-employed workers. A share of increased income from low-skilled workers and beneficiaries of social transfers resulting from growing minimum wages tends to increase average income of self-employed workers who sell goods and services to the former. As the increase in real disposable income from low-skilled workers and social transfers' beneficiaries (with a high propensity to consume) tends to expand formal employment, also the relative quantity of informal self-employed workers decreases. So, minimum wage policy considerably increases average income of self-employed workers both by expanding aggregate real disposible income and by reducing the number of self-employed workers.

Moreover, in the same period, unions became relatively stronger and played an important role, noticeable in the increase in the number of strikes (and there was also no reduction in union membership rates, contrary to the international experience). The faster growth rates of the economy in the period, together with better enforcement of labor laws and greater incentives to formalization of labor contracts for both workers and firms (firms and workers with formal labor contracts gaining access to the formal bank credit market and simplified tax rules for small business), led to strong growth in formal employment and to a significant drop in the informality rate.

The impact of the economic growth on employment creation was reinforced by the strong relative expansion of the service sector, which has low productivity (and therefore high labor intensity). This rapid growth in the service sector seemed to benefit also from the international and domestic trends of low relative prices of industrial consumption goods and massive consumer credit expansion. These factors appear to have increased considerably the income-elasticity of the service sector, as higher real wages and abundant consumer credit allowed workers to meet their demand for durable and non-durable industrial goods more easily and start spending an increasing share of wages on services (Medeiros, 2015). As a consequence of this pattern of growth, employment expanded very fast in labor-intensive sectors, such as construction, services, commerce and public administration (Amitrano, 2013). The combined effect of all these elements leads to a strong creation of formal employment even with moderate GDP growth rates.

At the same time, regarding the supply of labor, trends resulting from demographic transition reduced the growth rate of the working age population. In addition, social policies of poverty reduction, social security expansion and universalization of education reduced participation rates (as, for example, the reduction in child labor). These combined effects lead to a decline in the growth rate of the labor force, from an average of 3% per year between 2001 and 2005 to only 1.2% per year in the period 2006-2014 (Summa and Serrano, 2018). Additionally, lower wages grew much faster than average wages, significantly reducing wage inequality. With the strong pace of employment growth and the slowdown in the growth of labor supply, the unemployment rate fell continuously from 2003 to 2014. This further strenghtened the workers' bargaining power and lead to an average growth of 3% in real wages per year from 2006, in a context of low productivity growth (Summa and Serrano, 2018), resulting in a a steady recovery of the wage share until 2015. Saramago, Medeiros and Freitas (2018) estimate that the wage share grew at a yearly average of 1.2 percentage point in the period 2005–2015.

# 3. Direct (economic) and indirect (political) relations between investment, demand, and the profit share

Real wages that increase more than productivity and thus induce a rise in the wage share tend to decrease business profit margins. This also diminishes the actual or realized profit rates over the existing installed fixed capital stock, altough in the short run this effect can be attenuated, at least for the whole economy, since an increase in the wage share tends to expand consumption<sup>2</sup>, aggregate demand, and output, increasing the actual rate of capacity utilization for this initial capital stock (Serrano, 1988, appendix A).<sup>3</sup>

According to Garegnani (1992, 2015) and other followers of the revival of the classical surplus approach led by Piero Sraffa (Serrano, 2004, Cesaratto, 2015), the negative effect of a persistent reduction of the profit margins on expected profit rate of new investments cannot be attenuated by aggregate demand expansion, as in the case of existing installed capital stock, since the rise in capacity utilization rate is by its nature temporary. Competition ensures that the volume of new business investment will be such as to attempt to adjust the size of the capital stock to the expected level of persistent (aggregate and sectoral) effective demand (Garrido Moreira and Serrano, 2018, Serrano, 1995, Serrano and Freitas, 2017).<sup>4,5</sup> This occurs because no business firm will want to invest in such a way so as to intentionally install excess capital stock in relation to the expected effective demand; and real or potential competition from other business firms also prevents persistent undersizing of the capital stock in relation to expected demand, as in this case firms would risk losing market share to existing rivals and/or new entrants. Competition thus pushes firms to invest attempting to make the actual capacity utilization rate tend to the normal or planned degree of utilization (that is, the one that minimizes costs, taking in account the necessary margins of planned spare capacity). For these reasons, the expected profit rate in new investments will be what is known as the normal profit rate, obtained at the normal or planned degree of capacity utilization. The reduction in profit margins that results from real wages increasing more than productivity growth directly reduces the normal profit rate, that is, the one which can be obtained under the normal degree of capital stock utilization, and therefore also lowers the general rate of

<sup>2</sup> As income is transferred to the workers that have a higher marginal propensity to consume than that of capitalists.

<sup>&</sup>lt;sup>3</sup> The actual or realized profit rate falls because the profit share decreases more than the increase in the degree of capacity utilization. Given the level of investment and other autonomous expenditures, a rise in wage share increases the level of output, imports, tax revenues and workers' savings. These last three factors reduce the amount of aggregate realized profits relative to a given capital stock (Serrano, 1988, apendix A).

<sup>&</sup>lt;sup>4</sup> Some "neokaleckian" authors believe that it would be possible in what they call wage-led growth regime that the realized profit rate would increase permanently as a result of a drop in profit share, in what has become known as the "paradox of costs". In this case, the actual degree of capacity utilization should increase relatively more than the fall in the profit share and stabilize in this higher level.

<sup>&</sup>lt;sup>5</sup> The "paradox of costs" would depend on the hypothesis that the effect of the increase in workers consumption on investment is sufficiently large in order to compensate the negative effects over the amount of aggregate profits, and would only happen in an economy in which the productive capacity remains always overdimensioned and business firms as a whole would never be capable of adjusting productive capacity to aggregate demand. For theoretical criticism about this view see Serrano (1995), Serrano and Freitas (2017) and Garrido Moreira and Serrano (2018).

profits that can be expected on new investments, regardless of the expansionary effect of these higher real wages on aggregate demand and output levels.

But the fact that the long run effect of a rise in wage share has on decreasing the normal profit rate and, thus, on the expected profitability of new investments **does not mean**, contrary to what may seem at the first sight, that the level of investment will be reduced as a consequence of this change in functional income distribution.

On the contrary, in this case, competition between firms will lead to an increase in the level of investment to match the size of the capital stock with the higher levels of aggregate demand which came from higher workers' consumption described above. In this view, profitability (profit margins or profit rate at normal utilization rates of capital stock) is a constraint, and not a determinant of the investment. If expected profitability remains above a certain minimum level given by the interest rate plus a risk premium, changes in gross or net profit magins will not directly affect the amount of business investment.<sup>6</sup>

Two additional implications follow from these broad theoretical principles, which are worth mentioning here. First, as the profitability reduction does not diminish the levels of business investment, policies which attempt to directly stimulate investment through increases in net profit margins - such as business tax cuts and reductions in investment costs (for example, a decrease in the real interest rate), or exchange rate devaluations which allow higher profit margins for business firms in the tradable sector – do not by themselves have a positive persistent effect on investment, since if they are not accompanied by a perspective of aggregate demand expansion, they do not make it necessary to expand the productive capacity of business firms.<sup>7</sup> And to the extent that some business firms by chance actually expand their investments only because the expected profitability has increased, without increase in the expected demand for their products, the effect will be the creation of costly and undesired idle productive capacity which certainly will reduce the actual profitability of these business firms and would probably lead to a subsequent contraction of investment.<sup>8</sup>

<sup>&</sup>lt;sup>6</sup> Note that persistent reductions in the level of the real interest rates decrease the lower bound of financial and opportunity cost of investment.

<sup>&</sup>lt;sup>7</sup> In section 4 we will discuss the reasons for the failure of policies focused on increasing profit margins in stimulating investment in the Brazilian economy in the period 2011–2014.

<sup>&</sup>lt;sup>8</sup> These are the elementary criticisms to the profit-led growth regime models, in which business investment would be strongly and permanently affected in the long run by some indicator of profitability (like profit margin, share or normal rate). For a detailled criticism about this view, see Serrano (1995, ch. 3), Serrano and Freitas (2017) and Pariboni (2016).

A second implication of this view of business capacity creating gross investment as a derived magnitude is that it leads to a reconsideration of the role of credit as a determinant or more precisely as a constraint on investment. Since investment creates productive capacity, the amount of credit approved or borrowed to finance investment projects cannot reasonably be seen as totally independent from expected demand. In general, the amount of investment will depend on which is the most pessimistic expectations about demand between that of the business firm or the bank that will finance the investment project. Evidently, during a major short run financial crisis, aggregate investment is affected by financial conditions. For instance, it is highly unlikely that business firms fearing imminent bankruptcy will not postpone their expansion plans. However, even these effects are extremely asymmetrical, since the higher availability of credit for investment does not by itself create expected levels of effective demand in the future, and thus, would not justify the expansion of productive capacity. Finally, it is worth emphasizing that business firms are extremely heterogeneous relating to their financing constraints: small firms in general tend to face some difficulties to finance all their desired investment projects. But for large business firms (especially transnational ones) in general the limits regarding profitable demand are much more important than financing constraints. But in the aggregate, it is highly unlikely that the investment opportunities lost by small firms due to finance constraints are not mostly taken by larger firms, in a context of perspectives of generally expected and actual demand expansion. Therefore, except in very short run intense financial crisis situations, the role of credit constraints seems much more important to define the evolution of the size distribution of firms and particularly who will invest and not so much about how much will be the total business investment either in a sector or in the aggregate (Serrano, 2001).

But the fact that reductions in the expected profitability (normal profit rate) tend not to affect the size of private investment which creates productive capacity does not mean that enterpreneurs won't become unhappy with the fall in the expected and realized profitability, caused by increases in real wages higher than productivity growth. But, as Kalecki said, 'capitalists do not invest as a class', and any individual capitalist firm who refuses to invest because the expected profit rate has fallen (but it is still above the opportunity cost of capital) will be giving up the best opportunity still available to earn profits and allowing its rivals to take its previous market share. In this context, the best available alternative for the firms is to continuing investing as demand expands. At the same time, capital owners can organize themselves as a class to convince the government

to adopt economic policies which help to compensate or even to revert the undiserable distributive change. And the degree of success of this kind of initiative depends strictly on political, not economic, factors.

These latter considerations are related to the contributions made by Kalecki (1943) in his famous paper about the political aspects of full employment, in which he had foreseen that economic policies that would greatly reduce the unemployment rate and streighten workers' bargaining power may be reverted due the to growing opposition of the property-owning class that could end up persuading the government to change the direction of the economic policy stance.

Notice that according to Kalecki this opposition would not manifest itself directly through the reduction of business investment, but by shifting economic policies towards austerity, and that shift will end up affecting investment indirectly. These kinds of policies would slow down the growth rates of effective demand and reduce the degree of capacity utilization, and only then affect business investment.<sup>9,10</sup>

Streeck (2011), however, has a very different interpretation of this paper by Kalecki. According to the author, Kalecki says that there would be a direct economic reaction from entrepreneurs against the expansionary and progressive economic policies, materialized as an 'investment strike', which would lead the economy directly towards a recession. Streeck calls this direct reduction of investment by purely political reasons as a "Kaleckian reaction".

In our opinion, this notion of "investment strike" <sup>11</sup> in no way represents what Kalecki says in his seminal article. Kalecki makes it clear in the whole paper that investment only falls when the economy slows down as a result of the change in economic policy stance.

<sup>&</sup>lt;sup>9</sup> There are many differences between the sraffian and kaleckian views about the determinants of income distribution and investment, such as the impact of nominal wages on real wages (which Kalecki considered quite limited), and from real wages to the expected profitability of investment (which he also considered quite limited because for him investment would depend on the realized profit rate, which would not be much affected by an increased wage share).

<sup>&</sup>lt;sup>10</sup> For a criticism from the sraffian standpoint to Kalecki's view on investment, see Petri (1993). However, for our purposes, what interests us is that Kalecki believed that progressive economic policies would be contained by a political reaction from the capitalist class, and not directly by a fall in private investment.

<sup>&</sup>lt;sup>11</sup> In Kaleki (1943) there are no references to such thing as an "investment strike". The only textual evidence presented by Streeck is a part of a sentence in which Kalecki mentions that investment depends on the capitalists "state of confidence". But even in this excerpt, Kalecki seems only to be explaining that capitalists do not want the government controlling the level of employment of the economy with public spending because this would weaken the political power from the capitalist class over the workers.

In any case, the idea of an 'investment strike' is highly implausible, since it requires a total and coordinated suspension of capitalist competition, that is, an agreement among all the business firms, which must give up of profitable opportunities of investment for political reasons, while trust that all their rivals will do the same.

In a perspective much closer to Kalecki, Josef Steindl, his leading follower<sup>12</sup>, interpreted the end of the 'Golden Age of Capitalism' in advanced countries in this way:

"[...] the internal stress of groups contending for shares in the national income have shown themselves as inflationary; instead of placating the masses by a steady increase in living standards, the aim has become to dampen their spirits by unemployment, which hits hardest at those who are considered to be the most unruly elements. The arguments against full employment have got the upper hand in the councils of the power, and thus we witness stagnation not as an incomprehensible fate, as in the 1930s, but stagnation as policy" (Steindl, 1976, p. xvii).

In a similar vein we also have the analysis made by Garegnani and some of his associates (Cavalieri, Garegnani and Lucii, 2008) about the end of the Golden Age of advanced economies after the Second World War. In this view, the intensification of the distributive conflict at the end of the sixties lead to a rising wage share and a reduction in the expected and realized profit rates. But business investment, instead of falling, initially increased as a result of the positive effect of higher real wages over aggregate demand.

The partial pass through of wage increases lead to higher inflation (some time before the oil shocks) and, over time, to a political reaction to change the direction of economic policy towards austerity and inflation control, abandoning the previous priorities of rapid output growth and full employment which had been successfully followed by more than two decades. This change in the economic policy regime had the objective of generating enough unemployment to curb wage inflation and resolve the distributive conflict in favor of capital. Only after the adoption of these contractionary economic policies that aggregate demand growth reduced, which in its turn induced a deceleration of business investment (Serrano, 2004).

<sup>&</sup>lt;sup>12</sup>There are some diferences between the theoretical analysis of income distribution and business investment in Kalecki and Steindl, but they do not interfere in the point in common that we want to stress here, namely that increases in wage share do not harm investment and the economic slowdown results indirectly from a political reaction to the intensification of the distributive conflict, by shifting the economic policy stance.

# 4. Demand-led growth and induced investment: 2004–2014

Some recent econometric research presents evidence in favor to the view that business investment in Brazil is mainly driven by the principle of capital stock adjustment, as a result of the competitive pressure to adjust productive capacity to demand, and very little or not at all systematically affected by changes in the cost of capital or profitability.

Santos *et al.* (2016) found a high elasticity of the level of investment in relation to output. Avancini, Freitas and Braga (2015) and Braga (2018) confirm that the investment share (in machinery and equipment) adjusts slowly to changes in the long run growth of output, according to the mechanism of capital stock adjustment. Evidence that investment in machinery and equipment is induced by demand also at sectoral levels are found in Miguez (2016).<sup>13</sup>

The experience of output growth with social inclusion which we call the Brief Golden Age of the Brazilian economy can be divided in two phases. First, in the period 2004–2010, in which non-capacity creating autonomous demand was driven mainly by the government (with some help from exports) who progressively took responsibility for directly stimulating aggregate demand in a context of particularly favourable external conditions (Serrano and Summa, 2012a, 2015, Santos, 2013). These stimuli included substantial increase in public spending and social transfers, reduction in interest rates, incentives for expanding credit for both consumption and housing and the policy of increases in the real minimum wage.

In this first period, it should be noticed, investment in machinery and equipment (from private sector and state-owned entrerprises) grew at much higher rates on average (12.3%) than GDP (4.5%), which seems to support the idea that the accelerator effect of the investment share is induced by higher rates of effective demand growth.

The second period, from 2011 to 2014, is marked by the slowdown of effective demand growth in the Brazilian economy, as a result of a first change in the direction of the economic policy. In this period, the government abandoned the previous guideline of directly stimulating aggregate demand and the expansion of the domestic market, in a period in which export growth was also slowing down, and started to focus on giving incentives to private investment and exports. These measures start with a strong fiscal

<sup>&</sup>lt;sup>13</sup> A survey of empirical papers on aggregate investment in Brazil that confirm the prominence of aggregate demand as a determinant is found in Santos et al. (2016).

adjustment in 2011, with a drop in public and state-owned enterprises' investments (Serrano and Summa, 2012b, 2015), interest rate hikes and macroproudential policies to restrain consumer credit growth. The rationale for this was the supposed overheating of the Brazilian economy caused by an alleged excessive growth of private consumption, which the government should control to make space for private investment and export expansion through exchange rate depreciation, reduction in some administered prices like energy, tax exemptions to increase business profit margins and private public paternerships to stimulate investment in infrastructure.

As a result of this change in the direction of economic policy, in a context of lower rates of expansion of the world economy, the average growth rate of the Brazilian GDP markedly decelerates (2.1%) and investment in machinery and equipment drops sharply in a very predictable way (average rate of -0.7% a year) in the period 2011-2014.

It is worth pointing out that, as we said in section 2, the wage share increased continuously in the whole Brief Golden Age period, while the investment share grew in the first period (2004-2010) and decreased in the 2011-2014 period, following the movement of the growth rate of effective demand.

These data about the investment behaviour are completely contrary to the thesis advocated by Shaikh (2017), who considers the period that we call the 'Brief Golden Age' came to an end in Brazil because, in capitalist economies, except in unusual conditions, every time real wages grow above productivity, private investment falls.

Another interpretation about a supposed direct negative effect of the profit share on the realized profit rate and investment was presented by Marquetti, Hoff and Miebach (2016). Their thesis can be clearly seen in the abstract of their paper abstract: "The falls in the profit rate and in financial profitability after 2010 are the central causes of the current economic and political crisis. The decline in profitability broke the coalition of classes constructed in Lula's administration. The Dilma Rousseff's government adopted a series of fiscal stimulus for private capital accumulation in a period of declining profitability. The private sector restricted its investments and the growth rate dropped substantially".

But the empirical evidence does not seem to confirm this interpretation. Using the data presented by the authors (Marquetti, Hoff and Miebach, 2016, p. 14, fig. 3), we can see that the effective profit rate declines since 2006, although the accumulation rate falls only five years after (since 2011).

Another paper arguing about a presumed negative direct effect of the profit squeeze on investment in the Brazilian economy is Martins and Rugitsky (2018). Once more, the empirical problem with this interpretation regards the lack of explanation of why and how business investment kept growing for many years while the profit share (according to authors' estimations) was already being reduced (Carvalho and Rugitsky, 2015).<sup>14</sup>

Many other new-developmentalists authors also suppose that investment in the Brazilian economy is "profit-led", that is, falls when wage share increases (Bresser-Pereira, 2015). For the new-developmentalists, as is widely known, the crucial variable is the exchange rate. A long period of exchange rate appreciation would reduce the profitability of investments in the tradable sector (if we suppose that the international prices are given for these sectors), <sup>15</sup> and this should explain the slow down of business investment. The empirical problem with this view regarding the recent data for the Brazilian economy is that investment grew in the period of exchange rate appreciation (2004-2010) and decreased when real exchange rate depreciated (2011-2014). <sup>16</sup>

As we saw before, from our theoretical perspective, there is no reason to believe that investment is systematically directly related with the profit share or the normal profit rate. The well-known failure of the policy of giving direct incentives to private investment through tax exemptions, lower interest rates and devaluated real exchange rate seems to widely confirm this theoretical principle in the recent Brazilian case.

<sup>&</sup>lt;sup>14</sup> This fact was already recognized by Rugitsky and Carvalho (2015), since they proposed, in a quite *ad hoc* way, that the relation between investment and functional income distribution in Brazil would be non-linear.

<sup>&</sup>lt;sup>15</sup> There is a line of reasoning quite compatible with the idea of induced investment in which exchange rate depreciation would increase the size of the markets for domestic investors by cheapening exports and making imports more expensive. However, this view does not find support on the recent Brazilian economy empírical data, since the expansionary effects of the exchange rate appreciation on real wages and consumption seemed to prevail over the potential effects on competitiveness (Serrano e Summa, 2015).

<sup>&</sup>lt;sup>16</sup> Notice that the econometric evidence found in Santos et al. (2016) shows that real exchange rate has a negative effect over investment (that is, an exchange rate appreciation is associated with increase in investment, the opposite of what would be expected if investment was a positive function of the profit share or profit rate).

Finally, we have the interpretation that the slowdown in investment growth was a direct result of the political opposition to the government (Carneiro, 2018). 17, 18, 19, 20 In this view, Singer considers that what he calls "the developmentalist experiment" of the president Dilma Roussef <sup>21</sup> faced a strong political reaction from the opposition, which culminated in an "investment strike" (Singer, 2015). This thesis is based on Streeck (2011) interpretation on Kalecki, discussed and criticized above, and in our point of view it would be relevant in practical terms only in situations of extreme political and economic instability. Moreover, if profitability conditions had become so shaky that they caused private investment to collapse, we probably would also observe generalized *lockouts* and breakdowns in production. The slowdown in business investment growth which happened in Brazil certainly did not reflect this extreme unstable situation, in addition to being fully justified by the lower pace of effective demand expansion.

# 5. The stagnation policy

Over the period 2004–2014, business leaders increasingly made their growing dissatisfaction with a number of issues clear. These issues included the distributive effects of the "undesired revolution" in the labor market described in section 2 and the

<sup>17</sup> Not so drastic but partially in the same line of explanation of a direct political reaction on (part of) private investment is found in Carneiro (2018), which although recognizing that part of the private investment is induced and the direct economic incentives to investment failed, argues that the so-called autonomous investment particularly in infrastructure did not take place, and the failure of the "develomentalist experiment" was due to political difficulties.

<sup>18</sup> These difficulties regarding the private investment in infrastructure seem to us as being related much more especifically to the lack of agreement of guarantees about demand perspectives and minimum profitability for projects and sectors which investment are extremely risky but have important positive externalities, such as infrastructure, because the government neither wanted to make public investments nor to subsidize private investment for avoiding too high end-user public utility fares which would generate negative externalities for the economy.

<sup>19</sup> Given this peculiar attitude from the Brazilian government (in addition of a striking inability in conducting this process), an agreement, regardless the political aspects, seems to us logically impossible. And it should be remembered that the option for public investment in 2007 by the second Lula's administration (a plan which was called PAC, 'plan for acelerating growth') happened only after several attempts in promoting Public-Private-Partrnership in infrastructure investment in 2003-2006, which were abandoned by their very poor results, in a period in which the political situation was stable and the distributive conflict was less intense (Serrano and Summa, 2015).

20 It is worth remembering that the same conglomerates of construction and other business corporations that supposedly boycotted the PPPs by political reasons in the Lula and Dilma administradions were the same that operated ativelly the public and state-owned enterprises' investment projects in these governments.

<sup>21</sup> For a criticism on the idea that the economic policy regime in the first Dilma's administration was a "developmentalist experiment", see Medeiros (2017), who argues that it was instead a retreat in relation to the second Lula's administration, due to a strong slowdown in public and state-owned enterprises' investment.

consequent relative loss of control over wage increases, euphemistically referred to as "service sector inflation". They were also dissatisfied with the situation of presumed 'full employment' of labor and with the loss of the 'external competitiveness' and the reduction in its profit margins, particularly in the industrial sector. Despite the large amount of incentives and tax exemptions since 2011, intended to increase profit margins, the continuous growth of real wages faster than productivity in a decelerating economy generated increasing discomfort in business circles. It also let to growing embarrassment for a government coming from a political party that had a genuine compromise with the goal of social inclusion, but at the same time was extremely averse to confrontation with the ruling class (Serrano and Melin, 2016).<sup>22</sup>

As we saw in section 3, the downward trend of profitability did not have negative direct effects on business investment. Nor does there seem to be any evidence of politically dissatisfied business leaders directly cutting back their firms' investments. The slowdown in business investment growth seems instead to have been caused by the reduction of the expansion of effective demand. This change in investment behavior only happened after the change in the orientation of economic policy in 2011 and its effects of slowing down aggregate demand growth. The economy barely grew in 2014, which in principle should lead to expansionary, and not contractionary macroeconomic policies in 2015. However, the effect of the rising distributive conflict was to gradually generate political consensus about the necessity of a stronger shift of the stance of economic policy in the opposite direction, by reducing even more drastically aggregate demand growth and stop the process of real wage increases, by generating unemployment in order to weaken the workers' bargaining power position.

In 2015, the Brief Golden Age of the Brazilian economy ends for good after the "contractionary general contraction" in which the second Rouseff government used all the available policy tools to rapid contract aggregate demand (Serrano and Melin, 2016).<sup>23</sup> GDP falls sharply (–3.9%) and investment in machinery and equipments collapses (–

<sup>&</sup>lt;sup>22</sup> Teixeira, Dweck and Chernavsky (2018) argue that this kind of political opposition to progressive economic policies would explain the parliamentary coup in 2016. But it seems more appropriate not to forget that the shift in the economic policy orientation did happen in the very beggining of the second Dilma's administration in 2015.

<sup>&</sup>lt;sup>23</sup> Many supporters of the policies implemented in 2015 say that fiscal policy cannot be blamed exclusively for the recession, and we agree. The term 'general contractionary contraction' reflects the combination of strong fiscal adjustment, interest rate hike, public banks' credit contraction, exchange rate depreciation and a huge raise in public utility service's fares at the same time, besides the cancelation of much of public federal and state-owned enterprises' investments in the context of the 'car wash' corruption inquiry. This whole set of measures was the cause of the deep Brazilian recession.

26%) in 2015 as a consequence of this general contraction. The government that comes to power after the parliamentary coup in 2016 adopts the same kind of economic policy, obtaining in a very predictable way the same results of falling GDP and investment share.

The strong U-turn in economic policy regime in 2015 towards austerity was justified by the government as being due to a supposedly compelling necessity to make a fiscal adjustment in order to control the gross public debt to GDP ratio and satisfy the international credit rating agencies, in order to avoid a downgrade in Brazilian ratings that would presumably lead to subsequent increase in the country-risk spread and a currency crisis. This interpretation, conceived by some economists of the second Roussef government to rationalize why they decided to do exactly the opposite of what was promised during the election campaign, had no basis in reality.

In the Brazilian case, the trend of the credit rating grades has, systematically, followed and not led the evolution of sovereign spreads (country risk). And the latter, as reflects perceptions about the risk of a country (and not the government) to interrupt its payments in foreign (and not domestic) currency, depends basically on international conditions and the overall situation of the country's balance of payments (and not on the public debt issued in domestic currency). The sovereign spread does not depend on and has no systematic causal relation at all with fiscal indicators in Brazil. Moreover, it is important to remember, credit rating agencies are far from being monopolists that could control all the international capital flows to Brazil and have themselves admitted at the time that Brazilian external accounts were solid, with a confortable amount of international reserves (Serrano and Pimentel, 2017).

In fact, the true objective of the sudden shift in the direction of economic policy towards "austerity" was to stop the process of real wage growth generating enough unemployment and create a propitious climate for the beginning of reforms that reduce labor and social rights as a way of permanently reducing the degree of workers' bargaining power. In this sense, the economic policy has been extremely successful, despite the instability generated by the deposition of the Rouseff government in 2016.

We therefore consider that the neoliberal U-turn in economic policy in 2015 is related with the consequences of the "undesired revolution" described in section 2. That is, it looks like something similar to what happened at the end of the long-lasting Golden Age of the advanced countries has happened in the Brief Brazilian Golden Age: a political reaction to the intensification of the distributive conflict, which ended up leading to austerity policies. In the specific case of the Brazilian economy, the intensification of the

distributive conflict seems to be caused by the "undesired revolution" in the labor market. Besides, one difference in the Brazilian case in relation to the advanced countries is that the property owners were strongly supported by part of the middle class, furious about the reduction in wage inequality and the increasing cost of domestic and low-skilled services.

As we discussed above, capitalists do not act "as a class" to reduce investment if their profit margins and rates decrease as a result of growing real wages. But one thing they do as a class is to make political pressure on the government to stop, and if possible, to revert progressive economic policies which generate social and distributive results that are unpleasant for them (Serrano and Melin, 2016, Calixtre and Fagnani, 2018).

# References

- Amitrano, Claudio Roberto. "Considerações sobre o mercado de trabalho no Brasil". Corrêa, Vanessa Petrelli (Org.). *Padrão de acumulação e desenvolvimento brasileiro*. São Paulo: Ed. Fundação Perseu Abramo, 2013.
- Avancini, Daniel Paulon; Freitas, Fábio N. P.; Braga, Julia de Medeiros. "Investimento e crescimento liderado pela demanda: um estudo para o caso brasileiro com base no modelo do supermultiplicador sraffiano". Encontro Nacional de Economia, 43°, 2015, Florianópolis. *Anais*... Florianópolis: Anpec, 2015.
- Braga, Julia de Medeiros. "Investment Rate, Growth and Accelerator Effect in the Supermultiplier Model: The Case of Brazil". Textos para Discussão, Rio de Janeiro, UFF, n. 332, 2018. ["Investment rate, growth, and the accelerator effect in the supermultiplier model: the case of Brazil." *Review of Keynesian Economics* v.8 n.3, pp. 454-466., 2020]
- Bresser-Pereira, Luiz Carlos. "The Access to Demand". *Brazilian Keynesian Review*, v. 1, n. 1, pp. 35–43, 2015.
- Calixtre, André; Fagnani, Eduardo. "A política social nos limites do experimento desenvolvimentista". In: Carneiro, Ricardo; Baltar, Paulo; Sarti, Fernando (Orgs.). *Para além da política econômica*. São Paulo: Ed. Unesp, 2018. pp. 327–364.

- Camargo, José Márcio; Ramos, Carlos Alberto. *A revolução indesejada: conflito distributivo e mercado de trabalho*. Rio de Janeiro: Campus, 1988.
- Carneiro, Ricardo. "Navegando a contravento: uma reflexão sobre o experimento desenvolvimentista do governo Dilma Rousseff". In: Carneiro, Ricardo; Baltar, Paulo; Sarti, Fernando (Orgs.). *Para além da política econômica*. São Paulo: Ed. Unesp, 2018. pp. 11–54.
- Carvalho, Laura; Rugitsky, Fernando. "Growth and Distribution in Brazil in the 21st Century: Revisiting the Wage-led Versus Profit-led Debate". In: Encontro Nacional de Economia, 43°, 2015, Florianópolis. Florianópolis: Anpec, 2015.
- Cavalieri, Tiziano; Garegnani, Pierangelo; Lucii, Mary. "Full Employment and the Left". In: Bini, Piero; Tusset, Giangranco (Orgs.). Theory and Practice of Economic Policy: Tradition and Change—Selected Papers from the 9th Aispe Conference. Milão: Franco Angeli, 2008. pp. 334–345.
- Cesaratto, Sergio. "Neo-Kaleckian and Sraffian Controversies on the Theory of Accumulation". *Review of Political Economy*, v. 27, n. 2, pp. 154–182, 2015.
- Garegnani, Pierangelo. "Some Notes for an Analysis of Accumulation". In: Halevi, Joseph; Laibman, David; Nell, Edward J. (Orgs.). *Beyond the Steady State: A Revival of Growth Theory*. Nova York: St Martin's Press, 1992. pp. 47–71.
- Garegnani, Pierangelo. "The Problem of Effective Demand in Italian Economic Development: On the Factors that Determine the Volume of Investment". *Review of Political Economy*, v. 27, n. 2, pp. 111–133, 2015.
- Garrido Moreira, Vivian; Serrano, Franklin. "Demanda efetiva no longo prazo e no processo de acumulação: o debate sraffiano a partir do projeto de Garegnani (1962)". *Economia e Sociedade*, v. 27, n. 2, 2018.
- Kalecki, Michal. "Political Aspects of Full Employment". *The Political Quarterly*, v. 14, n. 4, pp. 322–330, 1943.
- Kalecki, Michal. "The problem of effective demand with Tugan-Baranovsky and Rosa Luxemburg." Collected Works of Michał Kalecki 2 (1967).
- Marquetti, Adalmir Antonio; Hoff, Cecília Rutkoski; Miebach, Alessandro Donadio. "Lucratividade e distribuição: a origem econômica da crise política brasileira". Mimeo, 2016. ["Profitability and distribution: The origin of the Brazilian

- economic and political crisis." *Latin American Perspectives*, v.47 n.1, pp.115-133, 2020]
- Martins, Guilherme Klein; Rugitsky, Fernando. "The Commodities Boom and the Profit Squeeze: Output and Profit Cycles in Brazil (1996–2016)". Working Paper Series, FEA–USP, n. 9, 2018. ["The long expansion and the profit squeeze: output and profit cycles in Brazil (1996–2016)." *Review of Radical Political Economics*, v.53, n.3, pp. 373-397, 2021]
- Medeiros, Carlos Aguiar de. *Inserção externa, crescimento e padrões de consumo na economia brasileira*. Brasília: Ipea, 2015.
- Medeiros, Carlos Aguiar de. "A economia brasileira no novo milênio: continuidade e mudanças nas estratégias de desenvolvimento". *Revista de Economia Contemporânea*, v. 21, n. 2, 2017.
- Miguez, Thiago de Holanda Lima. "Evolução da formação bruta de capital fixo na economia brasileira 2000–2013: uma análise multissetorial com base nas matrizes de absorção de investimento (MAIs)". Tese (doutorado)—Instituto de Economia, Universidade Federal do Rio de Janeiro, 2016.
- Pariboni, Riccardo. "Autonomous Demand and the Marglin–Bhaduri Model: A Note". *Review of Keynesian Economics*, v. 4, n. 4, pp. 409–428, 2016.
- Petri, Fabio. "Critical Notes on Kalecki's Theory of Investment". In: Mongiovi, Gary; Rühl, Christof (Orgs.). *Macroeconomic Theory: Diversity and Convergence*. Aldershot: Edward Elgar, 1993. pp. 189–207.
- Santos, Cláudio Hamilton Matos dos. "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, Vanessa Petrelli (Org.). *Padrão de acumulação e desenvolvimento brasileiro*. São Paulo: Ed. Fundação Perseu Abramo, 2013. pp. 181–241.
- Santos, Cláudio H. M dos *et al.* "Revisitando a dinâmica trimestral do investimento no Brasil: 1996–2012". *Revista de Economia Política*, v. 36, n. 1, pp. 190–213, 2016.
- Saramago, Hugo Araujo; Freitas, Fabio Neves P. de; Medeiros, Carlos Aguiar de. "Distribuição funcional da renda: aspectos conceituais e metodológicos e uma

- análise de decomposição para a parcela salarial no Brasil (1995–2015)". Encontro Nacional de Economia Política, 23°, 2018, Niterói. *Anais*... Niterói: SEP, 2018.
- Serrano, Franklin. A teoria dos preços de produção e o princípio da demanda efetiva.
  Dissertação (mestrado)—Instituto de Economia Industrial, Universidade Federal do Rio de Janeiro, Rio de Janeiro, 1988.
- Serrano, Franklin. *The Sraffian Supermultiplier*. Tese (PhD)—Faculty of Economics and Politics, Cambridge University, Cambridge, 1995.
- Serrano, Franklin. "Acumulação e gasto improdutivo na economia do desenvolvimento". In: Fiori, José Luís; Medeiros, Carlos. (Orgs.). Polarização mundial e crescimento. Petrópolis: Vozes, 2001. pp. 135–164. ["Accumulation and 'Unproductive Expenditures' in the Development Literature: A Classical Supermultiplier Analysis", In:http://citeseerx.ist.psu.edu/viewdoc/summary?doi=10.1.1.501.3426]
- Serrano, Franklin. Power relations and American macroeconomic policy, from Bretton Woods to the floating dollar standard. O Poder Americano, Petrópolis: Editora Vozes, p. 1-43, 2004..
- Serrano, Franklin; Freitas, Fabio. "The Sraffian Supermultiplier as an Alternative Closure for Heterodox Growth Theory". *European Journal of Economics and Economic Policies: Intervention*, v. 14, n. 1, pp. 70–91, 2017.
- Serrano, Franklin; Melin, Luiz Eduardo. "Aspetti politici della disoccupazione: la svolta neoliberista in Brasile". *Critica Marxista*, n. 1, 2016. ["Political aspects of unemployment: Brazil's neoliberal u-turn." In: https://www.excedente.org/wp-content/uploads/2015/12/Serrano-Melin-U-Turn.pdf]
- Serrano, Franklin; Summa Ricardo. "Macroeconomic Policy, Growth and Income Distribution in the Brazilian Economy in the 2000s". *Investigación Económica*, v. 71, n. 282, pp. 55–92, 2012a.
- Serrano, Franklin; Summa Ricardo. "A desaceleração rudimentar da economia brasileira desde 2011". *Oikos*, v. 11, n. 2, pp. 166–202, 2012b.
- Serrano, Franklin; Summa Ricardo. "Aggregate Demand and the Slowdown of Brazilian Economic Growth in 2011–2014". *Nova Economia*, v. 25, n. especial, pp. 803–833, 2015.

- Serrano, Franklin; Pimentel, Kaio. "Será que "acabou o dinheiro"?: financiamento do gasto público e taxas de juros num país de moeda soberana". *Revista de Economia Contemporânea*, v. 21, n. 2, 2017.
- Shaikh, Anwar. "Successful Macroeconomic Stimulus". *Policy Brief*, Progressive Economics Group, n. 11, 2017.
- Singer, André. "Cutucando onças com varas curtas". *Novos Estudos—Cebrap*, n. 102, pp. 39–67, 2015.
- Steindl, Josef. Maturity and stagnation in American capitalism. NYU Press, 1976.
- Streeck, Wolfgang. "The Crises of Democratic Capitalism". *New Left Review*, n. 71, pp. 5–29, 2011.
- Summa, Ricardo; Serrano, Franklin. "Distribution and Conflict Inflation in Brazil under Inflation Targeting, 1999–2014". Review of Radical Political Economics, v.50, i.2, pp. 237–446, 2018.
- Teixeira, Rodrigo Alves; Dweck, Esther; Chernavsky, Emílio. "A economia política da política fiscal e o processo de impeachment". Encontro Nacional de Economia Política, 23°, 2018, Niterói. *Anais*... Niterói: SEP, 2018.

# **Postscript**

We consider that the updated data on the wage share, private business investment share and GDP growth for the Brazilian economy from 2000-2021 is consistent with our explanation of business investment as being induced by demand and not particularly connected with the wage share, as we argued in the body of the translated paper above from 2018.

Regarding the relation between the annual data on wage share and private business investment share, both series grow together from 2004 to 2011. Then, the investment share stabilizes at a higher level in 2012-2013, decreases from 2014-2016 and stabilizes in a lower level in the period 2017-2019, while the wage share keeps increasing continuously until 2015, when it starts to decrease from 2016. Figure 1 shows the 3-year **moving average** of both series for the period 2002-2021 (which reflects the described dynamics with some lag). This provides further evidence of the absence of a direct and systematic relation between the wage share and the private business investment share in the Brazilian economy.

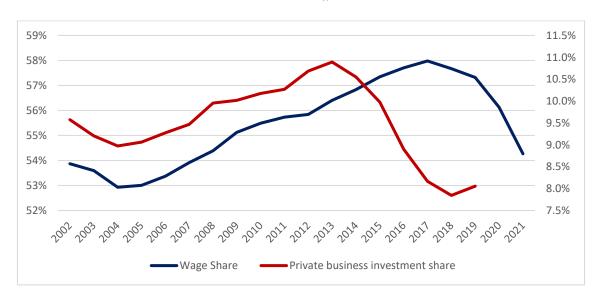
Additionally, we think that the behavior of the private business investment share can be explained by the pattern of the growth rate of the economy. The Brazilian economy grew faster on average in the period 2004-2010, slowed down in the period 2011-2014, collapsed in the 2015-16 and recovered to a stagnant growth in 2017-2019, so slow that the economy had not reached the 2014 peak level of GDP by the end of 2019. The private business investment share seems to follow this pattern, increasing as a result of the faster growth period, decreasing slightly as a result of the slowdown, and then decreasing faster as a result of the collapse of GDP growth rates, stabilizing again at lower levels compatible with stagnant growth from 2017-2019. Figure 2 shows the 3-year **moving average** of the private business investment share and the growth rate of the GDP (with one year lag) for the period 2002-2019.

The upward trend of the wage share is explained by the dynamics of real wages and productivity in a context of strengthened workers' bargaining power during the "undesired revolution" in the labor market during the "Brief Golden Age" in Brazil. The

<sup>&</sup>lt;sup>24</sup> Note that recently the econometric study of Avritzer, Freitas and Braga (2021) also found no relation between the wage share and investment and a strong relation between the rate of growth of demand and the investment share for data for the Brazilian economy from 1952 to 2017.

downward trend of the wage share reflects the result of austerity and stagnation policies as an attempt to resolve the distributive conflict in favor of capital, which resulted first in higher unemployment rates and then in the dismantling of the political and institutional framework that led to that "undesired revolution".

 $\label{eq:Figure 1-Moving-average of wage share and private business investment share in \\ Brazil$ 

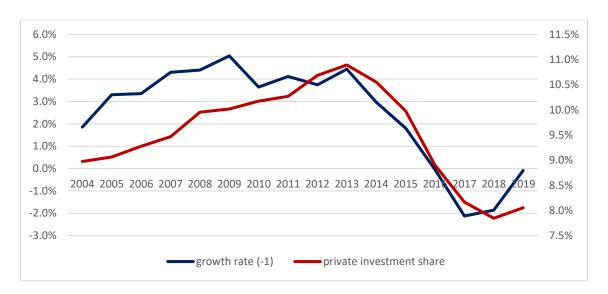


<sup>\*</sup>Both series are calculated as moving average of 3 years.

<sup>\*\*</sup> Private Business Investment Share is calculated by Haluska (2021). The series is constructed using the National Accounts of IBGE and excluding Government and state-owned enterprise Investment, Residential Investment and changes in inventories.

<sup>\*\*\*</sup> Wage Share is calculated by Marquetti and Mielbach (2021).

Figure 2 – Moving-average of growth rate of GDP and private business investment share in Brazil



<sup>\*</sup>Both series are calculated as moving average of 3 years. Growth rate lags by one year.

\*\*\* Growth rate of GDP is provided by SCN/IBGE

# References

Avritzer, Joana David; Freitas, Fabio Neves Perácio; Braga, Julia de Medeiros. "Demandled growth and functional income distribution in Brazil from 1952 to 2017." *Nova Economia*, v.31, n.1, pp. 7-38, 2021.

Haluska, Guilherme. A desaceleração e a recessão econômica no Brasil entre 2011 e 2019 analisada a partir do modelo do Supermultiplicador Sraffiano. In: Anais do 14º Encontro Internacional da Associação Keynesiana Brasileira. Sao Bernardo do Campo(SP), UFABC, 2021. In: <a href="https://www.even3.com.br/anais/akb2021/375494-a-desaceleracao-e-a-recessao-economica-no-brasil-entre-2011-e-2019-analisada-a-partir-do-modelo-do-supermultiplic/">https://www.even3.com.br/anais/akb2021/375494-a-desaceleracao-e-a-recessao-economica-no-brasil-entre-2011-e-2019-analisada-a-partir-do-modelo-do-supermultiplic/</a>

Marquetti, Adalmir Antonio; Miebach, Alessandro Donadio. A remuneração do trabalho: golpe e pandemia. *Jornal GGN*, 7 dec. 2021, In: <a href="https://jornalggn.com.br/trabalho/a-remuneração-do-trabalho-golpe-e-pandemia-por-adalmir-a-marquetti-e-alessandro-d-miebach/">https://jornalggn.com.br/trabalho/a-remuneração-do-trabalho-golpe-e-pandemia-por-adalmir-a-marquetti-e-alessandro-d-miebach/</a>

<sup>\*\*</sup> Private Business Investment Share is calculated by Haluska (2021). The series is constructed using the National Accounts of IBGE and excluding Government and state-owned enterprise Investment, Residential Investment and changes in inventories.

Imprint
Editors: Sigrid Betzelt, Eckhard Hein (lead editor), Martina Metzger, Martina Sproll, Christina Teipen, Markus Wissen, Jennifer Pédussel Wu, Reingard Zimmer
ISSN 1869-6406
Printed by HWR Berlin
Berlin July 2022