

Macroeconomic Constraints and Limits on Social Spending: An Analysis of the Period 2003-2012 in Brazil¹

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Abstract

Recognizing that the reduction of poverty and income inequality depends in part on the level and allocation of social spending and in part on the macroeconomic environment, this paper discusses the contribution of this framework to the distributive effectiveness of social policy under the Luiz Inácio Lula da Silva and Dilma Rousseff administrations in Brazil (2003-12). Grounded in Keynesian theory, the analysis considers three macroeconomic effects of government spending: the multiplier, the “crowding-in,” and the “crowding-out” effects. It is shown that an important characteristic of these administrations was the conciliation of orthodox fiscal and monetary policies with development policies. It is concluded that important improvements were seen, but the fragile coordination between macroeconomic and development policies has limited the distributive impact of social actions. Two strategies are recommended to mitigate this condition: a) an increase in social per capita spending, moving in the direction of universalization of public services; b) a reduction in the structural, fiscal and monetary restraints on the effects of social policy, particularly the propensity to import; the regressive taxation structure; and the policy of high interest rates.

Key words: fiscal policy, social spending, income distribution, government spending.

Introduction

The administration of Luiz Inácio Lula da Silva (2003-10) marked a turning point in Brazilian social policy, largely maintained under President Dilma Rousseff (2011-14). After nearly two decades of being relegated to second place (if not last) in terms of government priorities, social policy took on a centrality never before seen in Brazil, albeit sharing the stage with a permanent price-stabilizing policy. This change took place as early as the first year of the Lula administration, with the launch of the Fome Zero (Zero Hunger) Program, a series of integrated initiatives from the federal government, aimed at increasing food access and reducing poverty. In 2004 the policy was joined by Bolsa Família, a minimum-income program, which became the most emblematic

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manifestation of social policy's change in status in Brazil. Another landmark of the Lula and Dilma administrations has been policy devoted to a real increase in the minimum wage.³

The advances born of this directional change in Brazilian economic policy are widely recognized, and may be seen in indicators of income, employment, and access to consumer goods on the part

³ The period also includes social programs in health, education, credit, and housing, among others. One might note, however, that the Lula administration also passed a reform of Social Welfare which made it more difficult for workers to access their retirement benefits, thus going against the tide of social policy.

of the low-income population, prime beneficiaries of social programs. On a macroeconomic level, however, a few limitations of the model begin to come into focus after a few years.

On one hand, social policy manifests itself in a tendency towards an increase in federal spending, especially on “transfers” (nonrefundable expenses). Though positive from a social point of view, this tendency runs up against fiscal limits, as social spending competes with other categories in a budget which is doubly limited: by the obvious difficulty in continued revenue expansion, and by its subjection to the model of goals for the primary budget surplus, instituted in 1999 under the administration of Fernando Henrique Cardoso and maintained under Lula and Dilma.

On the other hand, one must recognize that any reduction in poverty and income inequality – the *raison d’être* of social policy – depends, if only in part, on the level of social spending itself, and even the ways in which it is allocated. An important part of this process is constrained by the macroeconomic environment in which social policies are implemented. This involves all of the government’s other economic actions – which may broaden or restrict the space for social policy in the public budget – as well as the economy’s performance in general. Beyond influencing the distributive powers of social policies, this environment defines the economy’s capacity to create autonomous alternatives for income generation, or “exit doors” for assistance programs – that is, formal, qualified jobs fundamental for improving income distribution as a whole.

The distributive effects of social spending are thus ruled by two heavy constraints: a) the specific institutional framework of each program (target population, conditions for the inclusion or exclusion of beneficiaries, volume of resources applied, among other factors); b) the macroeconomic environment in which said social spending is inserted. This article seeks to focus on the latter constraint, with its central objective being a discussion of the *model of macroeconomic policy* employed during the Lula and Dilma administrations (with a focus on the fiscal sector) and its contribution to the distributive effects of its social spending programs.

The article will continue for five more sections. Section 2 discusses the principal macroeconomic channels of influence by which public spending affects income distribution. This analysis is theoretically grounded in a Keynesian focus on fiscal policy, which indicates three possible macroeconomic effects of public spending: the *multiplier* effect, which acts on families’ consumption – being thus directly related to social policy spending and its distributive impacts; and the *crowding-out* and *crowding-in* effects, which act on private investments, with an indirect influence on the distributive effects of social spending. Sections 3 and 4 provide general descriptions of the model of macroeconomic policy and spending policy, respectively, employed by the Lula and Dilma administrations. Section 5 summarizes the possible channels of influence that these policies may have had on the distributive effectiveness of social policy. Section 6 concludes the article.

The Macroeconomics of Public Spending and its Distributive Effects

–Public spending in the Keynesian model–

The cornerstone of macroeconomic Keynesian theory is the Principle of Effective Demand (Keynes, 1936, Ch. 3), which dictates that productive activity, responsible for income generation

in its various forms (wages, profits, taxes, etc.), is determined by spending (effective demand) by agents – families, businesses, and the government:⁴

$$[1] \quad Y = f(C, I, G, NX)$$

where Y = aggregate output (Gross Domestic Product – GDP); C = household consumption; I = private investment; G = consolidated public spending (federal, state, and municipal governments, and state-owned enterprises); NX = net external demand (exports minus imports); $f'_C, f'_I, f'_G, f'_{NX} > 0$.

From a Keynesian approach, public spending's first channel of influence over the functional and personal distribution of aggregate income flows from its capacity to *generate* a part of it. In principle, the greater G is, the greater the effective demand, and, *ceteris paribus*, the greater the income distributed amongst wages, profits, taxes, etc. Apart from this “scale effect,” public spending may stimulate private spending in consumption and investment. The former characterizes the multiplier effect of public spending; the latter reflects the *crowding-in* (expansive) and *crowding-out* (restrictive) effects on private investments.

The distributive effects associated to these channels of influence for social spending are also constrained by the specificities of the spending policy in two areas: a) the allocation of G amongst the expenditure categories common to the public sector: consumption, investment; transfers; and financial expenditures (in the service of the public debt); b) its *financing structure*, which the character of the tax burden and the public debt financing G at each cycle. The next subsections will analyze each of these effects and constraints.

–Public spending and consumption: the multiplier effect–

The multiplier effect on autonomous expenses stems from the positive influence exerted by income, independent of origin, on families' consumption; since, from a Keynesian approach:

$$[2] \quad C = c.(1-t).Y,$$

where c = marginal propensity to consume; t = the tax burden of the economy; $0 < c < 1$; $0 < t < 1$; and, thus, $0 < c.(1-t) < 1$.

As Y also responds positively to increases in C , the multiplier acts through successive decreasing increases in Y and C , which, once summed up, produce a total increase in income, represented as:⁵

$$[3] \quad k = dY/dG = 1/[1 - c.(1 - t)]$$

In open economies, a part of this increase in consumption will be satisfied by imports, reducing the multiplier effect to:

$$[4] \quad k = dY/dG = 1/[1 - c.(1 - t) + m]$$

where m = the import coefficient of the economy (Froyen, 2001, Ch. 5).

In short, the multiplier effect of G (as with any other autonomous spending) is increased by the propensity to consume and restricted by the tax burden and the import coefficient. Among these constraints, the tax burden is the only variable within economic policy – fiscal policy, as is public spending. As such, it may in theory be administered in coordination with spending policy, so as to potentiate its macroeconomic and distributive effects. The propensity to consume and the import

⁴ For the theoretical basis for the Principle of Effective Demand, see Keynes (1936, 1937, and 1973), Minsky (1975), and Carvalho (1992), among others.

⁵For a formal demonstration of the Keynesian multiplier, see Hermann (1988).

coefficient are structural and parametric variables for fiscal policy, which (alongside other elements) define the macroeconomic environment into which public expenditure policy is inserted.

In addition to cultural factors, the propensity to consume reflects two structural forces (Keynes, 1936, Ch. 9-10): the country's income pattern, as measured by income per capita: the lower the historical level of aggregate and per capita income, the greater the propensity to consume tends to be; and b) the pattern of personal distribution of income in the country: generally, the worse this appears (the greater the concentration), the greater the propensity to consume, because, in this case, the relative weight of the low-income population is increased within GDP. The propensity to consume is thus unlikely to act as a restriction on the distributive effectiveness of public expenditure policies, as its macroeconomic effect is favored in the poorest and most socially unequal economies – precisely those most in need of such policies.

The import coefficient, meanwhile, tends to act perversely in such economies – which, on the international stage, are placed in the category of developing nations. One of the defining characteristics of this international position is technological underdevelopment in relation to countries with higher income (Furtado, 1986), reflected in a chronic difficulty to compete in the domestic market (as well as abroad), especially (but not exclusively) in relation to high-value-added products. Given this state of affairs, and unless policies restricting imports are in place, lower-income economies tend to operate with a high import coefficient. Moreover, this coefficient tends to develop procyclical behavior, increasing precisely when aggregate demand expands more rapidly. Thus, although the propensity to consume contributes to increasing the multiplier effect of public spending in these cases, much of it will be neutralized by the increase in imports.

The contradictory effects between the variables that determine the magnitude of the multiplier point to the importance of previously mentioned specificities within spending policy.

As regards the allocation of G , the role of the propensity to consume would indicate transfers as the item of greatest distributive impact, as they directly affect the low-income population. The restrictive role of the import coefficient, however, suggests that any public expenditure policy strongly concentrated in transfers will have little efficacy in distributive, macroeconomic, or even fiscal terms. This form of government action tends to worsen the country's position externally, reinforcing its condition as a “less developed country,” and, thus, the need to maintain or even increase fiscal expenditures with transfers. Transfer expenditures would thus ideally be a part of a broader policy of economic development also covering consumer spending and government investment, aimed at bettering the country's position in the international market – via industrial policy, foreign trade, and public investments in infrastructure, health, and education, among other sectors.

At the other end of the spectrum from transfers, one finds spending on interest on the public debt. These expenditures, destined for rentiers – savers and financial institutions that hold part of the debt on the market – with a lower propensity to consume, have a regressive distributive effect and do not contribute positively to the multiplier effect of public spending.

In terms of financing G , it is difficult to indicate an “ideal” structure from a distributive point of view, since both taxation and public debt (which originates interest expenditures) have unfavorable distributive effects. These effects, however, may be attenuated by the type of taxation, allocation of spending, and monetary policy (which affects the cost of the public debt, through interest rate policies).

In the case of taxation, its influence on the multiplier effect is favored by the combination of a progressive tax structure with a redistributive allocation of spending: an increased burden on the higher-income strata, with this revenue allocated to policies targeting the least fortunate classes, can directly increase the propensity to consume and the multiplier effect of public expenditures. As for the debt, if the government's borrowing allows it to sustain or even increase public spending

on programs that benefit income redistribution, the unfavorable distributive effects on consumption will be attenuated. Moreover, as an integral (and important) part of the asset market, the public debt also influences the distributive effectiveness of public spending via its effects on interest rates. These, which are the source of the *crowding out* effect, analyzed below, depend in part on monetary policy.

–Public spending and investment: the crowding-in and crowding-out effects–

The *crowding-in* and *crowding-out* effects (respectively CIE and COE) illustrate the possible influence of public spending on two determinants of aggregate investment, from a Keynesian approach: the long-term expectations that guide the decision to invest, synthesized in what Keynes called the “marginal efficiency of capital” (the rate of return expected on an investment); and interest rates, which, serving as a financial or opportunity cost, compete with the marginal efficiency of capital, limiting or favoring investments.

The CIE comes about when public spending favorably affects long-term expectations, inducing an expansion in private investment – which represents the central goal of fiscal policy from a Keynesian approach. To this end, the direct stimulus provided by public spending in the short term (measured by the multiplier effect) is less important than the signal that public expenditures send to companies, indicating the behavior of aggregate demand in the future. For the CIE, thus, allocation is more crucial than the magnitude of the expenditure.

The allocation pattern that most contributes to the CIE coincides, in part, with that which increases the multiplier effect of G . Among the non-financial government expenses, public investment – especially in terms of expanding and modernizing productive and urban infrastructure – is most likely to generate a CIE. Social expenditures, especially on education and health, can also contribute to this process, although with less visible effects in the short term.

In addition to the linkage effects on other sectors, public investment contributes to reduce production and transaction costs in the economy, thereby generating improvements in measures of productivity and possibly inflation as well. Social spending also tends to favor labor productivity, given the improvement in the education and qualifications of the labor force, as well as improvements in the workers’ general health conditions. With these effects in mind, social expenditures can be taken rather as a special kind of public investment – and not a simple running expense – since, in the long term, they contribute to increase the productive capacity of the economy.

The distributive effects associated to the CIE are, quite clearly, beneficial. The expansion of private and public investments directly elevates aggregate income; moreover, the possible fall in prices and/or inflation that follows a reduction in costs and an increase in productivity, meanwhile, benefits everyone, but especially the least fortunate classes, who dedicate a larger portion of their income to purchasing essential goods and services. This increase in productivity may even have an indirect beneficial effect on the functional distribution of income, with positive effects also possible on personal distribution as well. As productivity rises, so does room for raising nominal wages (constrained by workers’ bargaining power, of course), without a corresponding increase in prices – which attenuate or even neutralize the effect of real wage increases.⁶

An adequate allocation of public spending is a necessary condition, but not sufficient to provoke the CIE. The long-term expectations that constrain private investments are also influenced by conditions external to fiscal or social government policy. An unfavorable macroeconomic

⁶ When coupled with greater productivity, an increase in salaries does not squeeze profit margins, and thus does not induce companies to correct prices.

environment (be it domestic or international), for example, reduces the probability and magnitude of a CIE on two fronts: through a negative influence on the expected rate of return, and through a probable increase in interest rates, associated to the higher preference for liquidity that generally accompanies such periods. This latter factor characterizes one of the possible causes of the COE.

The COE is defined by precisely such a retraction in private investment, caused by a rise in interest rates following an increase in public spending. Thus, the first condition for the COE is that the rise in G be, at least in part, financed by issuing public debt – and therefore accompanied by the creation or expansion of the government deficit. The financing of this deficit will result in the COE if the debt issued by the government provokes (or demands) a rise in the interest rates. Two scenarios may lead to this effect: a) relative shortage of currency; or b) high preference for liquidity.⁷

The former characterizes a certain lack of coordination between fiscal policy (expansionary) and monetary policy (contractionary), which obviously ought to be avoided. A high preference for liquidity is the money-market reflection of an unfavorable macroeconomic environment, which already induces a decrease in private investment on its own. In this scenario, a rise in interest rates is quite probable, but it is difficult to tell which part of the fall in investments is due to this, and which is directly motivated by the deterioration of expectations.

The Model of Macroeconomic Policy under the Lula and Dilma Administrations (2003-2012)

–Short-term macroeconomic policy–

While President Lula begins his first term in 2003 with considerable political/electoral capital, he is given relatively little space in terms of economic policy. On one hand, there was the “cursed legacy” left by the two terms of President Fernando Henrique Cardoso (FHC, 1995-2002): inflation back in the double digits (the Broad Consumer Price Index, or IPCA, at 12.5% in 2002), troubling external restrictions, weak growth, and a rise in social debt, among other difficulties. Moreover, in Lula’s “Letter to the Brazilian People,” released during the electoral campaign in response to an uptick in his perceived “riskiness” – which, in addition to directly threatening his election, exacerbated the macroeconomic situation – the then-candidate had sworn to carry on existing macroeconomic policy.

We do not seek to discuss the possible ways in which this difficult situation might have been addressed.⁸ For our purposes, it is simply important to note that the first Lula administration was, indeed, characterized by the continuation of the orthodox model of macroeconomic policy, instituted in Brazil during the 2nd FHC administration. This model, as we know, rests on three pillars: a) a floating exchange rate; b) an inflation targeting regime (ITR) for monetary policy, in which the base interest rate is defined by the Central Bank in an attempt to meet a set level of inflation; c) primary budget surplus regime (seeking to control public debt stock) for fiscal policy, also guided, since 2000, by the Fiscal Responsibility Act.

This model of macroeconomic policy was maintained, in its essence, throughout the 2003-2012 period. The short-term macroeconomic management under the first Lula administration followed a clearly conservative bent, characterized by high interest rates and primary budget surpluses,

⁷ A third possible scenario is the market’s rejection of government bonds. This, however, is an extreme and atypical situation, generally in the wake of some recent episode of default on the public debt.

⁸ For interesting interpretations in this vein, see the articles that comprise the collection organized by Paula (2003).

prioritizing the economy's return to price stability (Table 1). The restrictive effects expected of this policy contrast with the GDP indicators from this period: they show a constant trend towards a return to growth starting in 2004 and only interrupted in 2009 by the effects of the international crisis begun in the American economy the year before.

Brazil's growth from 2004-08 may be explained, essentially, by the positive influence of the international climate, which created a series of effects that would prove beneficial for the Brazilian economy. Starting in 2003, the return to global economic growth and the flow of capital in the international market raised external demand and the prices of commodities being exported by Brazil. This favored an improvement in the country's external accounts and, combined with a policy of high interest rates (although lower than those during the second FHC administration), also improved stability in exchange rates and inflation. Under these circumstances, the return to growth in Brazil was led by exports and investment (Table 2). Another factor contributing to investment between 2004-08 was the fact that, from the 2nd Lula administration on, macroeconomic policy had been increasingly designed from a less conservative (or "more Keynesian") standpoint. Finally, the combination of greater economic growth with greater monetary stability (considering prices, interest, and the exchange rate) contributed to an improvement in public finances, reducing the share and the financial cost of the "indexed" debt, the nominal deficit, and the public debt/GDP ratio.

Table 1
Brazil: Selected Macroeconomic Indicators – 2002-2012 – Annual Averages

Brazil: Selected Macroeconomic Indicators
2002-2012 - Annual Averages

Period	GDP	Infla-	Real	Public Account (% GDP)				
	Real	tion	Interest	NFSP ³			Net	Tax
	Growth	(IPCA)	Rate ²	Nomi-	Prima-	Debt	Public	Burden
	(%)	(%)	(%)	nal	ry	Service	Debt	
2002	2,7	12,5	5,9	4,5	-3,2	7,7	60,4	32,4
2003	1,1	9,3	12,8	5,2	-3,3	8,5	54,8	31,9
2004-08	4,8	5,4	9,1	3,0	-3,5	6,5	46,1	34,1
2009-10	3,4	5,1	4,5	2,9	-2,4	5,2	40,6	33,7
2011-12	1,8	6,2	3,4	2,5	-2,7	5,3	35,8	n.a.

Source: Ipeadata (accessed Oct 2013).

Table 1 (Cont.)

Tabela 1 (cont.)
Brazil: Selected Macroeconomic Indicators
2002-2012 - Annual Averages

Period	External Accounts				Exchange Rate ⁶ (R\$/US\$)
	US\$ Milhões				
	Reser- ves ⁴	Balance of Payments ⁵	Capital Account	Current Account	
2002	37.823	302	8.004	-7.637	2,92
2003	49.296	8.496	5.111	4.177	3,08
2004-08	115.942	25.517	23.550	2.533	2,26
2009-10	263.814	47.876	85.606	-35.788	1,88
2011-12	365.313	40.064	92.571	-53.360	1,85

Source: Ipeadata (accessed Oct 2013).

In late 2008, the American financial crisis and its spreading effects, especially on European countries, interrupted the “boom” of the world market from 2004-08. The year 2009 was marked by a severe decrease in liquidity, commerce, and international economic growth. In Brazil, in contrast to all episodes of external turbulence since the 1980s, the ripple effect was modest this time: in the midst of the deep global recession set off by the crisis, the deceleration in economic growth in Brazil from 2009 on may be considered a satisfactory performance.

The Brazilian economy’s greater resistance to the 2008 crisis reflected a combination of factors (Carvalho and Souza, 2009; Gentil and Maringoni, 2009): a) the Brazilian financial system’s low involvement with external assets and liabilities; b) the fact that, by this period, growth in Brazil was already more dependent on domestic demand than the external market (Table 2); c) broad anticyclical efforts by the government, using the conventional instruments of fiscal and monetary policy as well as an expansion in public credit, supported by large capital contributions from the National Treasury to the three largest federal banks in the country: the Brazilian Development Bank (BNDES), Banco do Brasil (BB), and Caixa Econômica Federal (CEF).

Table 2
Real Growth and GDP Composition by Components of Aggregate Demand
2003-2012

Year	Real Growth (%)						Share in the GIP (%)				
	Consumption of		GFCF	Exports	Imports	GDP	Consumption of		GFCF	Exports	Imports
	Households	Government					Households	Government			
2003	-0,8	1,2	-4,6	10,4	-1,6	1,1	61,9	19,3	15,3	15,0	12,1
2004	3,8	4,1	9,1	15,3	14,4	5,7	59,8	19,2	16,1	16,4	12,5
2005	4,5	2,3	3,6	9,3	8,5	3,2	60,3	19,9	15,9	15,1	11,5
2006	5,2	2,6	9,8	5,0	18,5	4,0	60,3	20,0	16,4	14,4	11,5
2007	6,1	5,1	13,9	6,2	19,9	6,1	59,9	20,3	17,4	13,4	11,8
2008	5,7	3,2	13,6	0,6	15,4	5,2	58,9	20,2	19,1	13,7	13,5
2009	4,2	3,9	-6,7	-10,2	-11,5	-0,6	61,1	21,2	18,1	11,0	11,1
2010	7,0	3,3	21,9	11,5	36,2	7,5	59,6	21,2	19,5	10,9	11,9
2011	4,1	1,9	4,7	4,5	9,8	2,7	60,3	20,7	19,3	11,9	12,6
2012	3,0	3,2	-4,0	0,5	0,2	0,9	62,3	21,5	18,2	12,6	14,0

Source: IBGE, National Accounts 2000 / Annual, via Ipeadata. Access: Out/2013.

GFCF = Gross Fixed Capital Formation.

–Macro-Developmentalist Policy–

The intense use of public credit in Brazil in the post-external crisis period was not an isolated policy, nor a strictly anticyclical one. Federal banks played a central role in the developmentalist policies of the Lula and Dilma administrations. From the list of the social programs supported by federal banks, one might point to the Consigned Credit and Microcredit initiatives, created in 2003 and led on the market, respectively, by the BB and the Bank of the Brazilian Northeast (BNB); and the My House, My Life Program (MCMV), created in 2008 and principally financed by CEF. MCMV labels itself a mixture of social program and a production-sector program, envisioning the construction (by private companies) and acquisition (by low-income consumers) of low-income housing, supported by special lines of credit from CEF (subsidized on the acquisition side).

In terms of programs to stimulate investments, 2004 saw the launch of the Industrial, Technological, and Foreign Trade Policy (PITCE-MDIC, 2007). Through PITCE, government programs supporting exports were integrated into programs that supported industrial development,

with a focus on sectors with a high capacity for innovation, in a larger effort to increase competitiveness abroad (Carvalho Jr., 2005).⁹ The BNDES participated directly in formulating PITCE, alongside other government agencies, and stands as one of its principal public supplier of credit.

During Lula's second administration, three other government programs relied on the BNDES as their primary public financing support: the Growth Acceleration Program (PAC, 2007); the Productive Development Program (PDP, 2008); and the Investment Sustainability Program (PSI, 2009). The PAC is a bold, lasting program of public and private investments in productive and urban infrastructure (of transport and energy in particular). The PDP is a program of industrial policy, like PITCE, designed to broaden private investment and its exports by stimulating R&D and the exporting activity of micro- and small enterprises. The PSI was an emergency measure created in 2009 as part of the government's anticyclical efforts during the crisis abroad. Originally meant to run through June of 2010, but successively extended through (at least) December 2013, the Program consists of special lines of credit from the BNDES (quickly approved and at lower interest rates) for the same sectors prioritized under the PDP.¹⁰

Spending Policy of the Lula and Dilma Administrations (2003-2012)

As described in previous sections, the federal government's spending policy was broadly used in the 2003-2012 period in order to boost the domestic market – through an increase in consumption and government investment – and increase the workability of redistributive public policies – via a real increase in the minimum wage and income transfers to families. Under this heading, we will analyze four main categories of public spending: consumption, investment, income transfers, and interest.

–Government consumption–

The data show that government consumption varied little when measured as a percentage of GDP during the period 2003-2012 (Table 2). The cost of maintaining the machinery of government, as released in the IBGE National Accounts, includes the wages for federal, state, and municipal civil servants, purchases of goods and services by the three branches of government, and the depreciation of fixed capital. One sees that government consumption remained stable, hovering on average around 19.8% of GDP from 2003-2008. In 2009, as a strategy in the face of the crisis, government consumption jumps to 21.2% of GDP and then falls 0.5 percentage points of GDP as a result of the contractionary fiscal movement in 2011, with a cut in the purchase of goods and services meant to maintain public administrations. The strong deceleration in the economy surprised the government, forcing it back to a focus on consumption as a form of reaction. 2012 thus saw government consumption rise again, to 21.5% of GDP. Wages paid to civil servants, however, have been in decline as a percentage of GDP since September 2009 (IPEA, 2012).

Government consumption, although stable as a percentage of GDP, reveals an average growth rate of 5% in the 2001-2011 period when analyzed in terms of absolute deflated values (Santos, 2012). The expansion of this variable increases income, favors growth, and helps maintain education,

⁹ PITCE prioritized pharmaceuticals, semiconductors, software, and capital goods.

¹⁰ The PAC is coordinated by the Ministry of Finance and the PDP by the Ministry of Development, Industry, and Commerce. Relevant information may be found at these agencies' websites (www.fazenda.gov.br/pac and www.mdic.gov.br/pdp, respectively). The PSI is managed by the BNDES itself, and information may be found at the bank's website: www.bndes.gov.br/psi.

health, social assistance, justice, public security, urban transportation, and other sectors that guarantee an array of public services essential to the population. Gobetti and Orair (2010) and Santos (2012) have noted, however, the low dynamism of so-called intermediate federal consumption (total consumption expenditures of federal government, excluding servants wages). This would be the result of the federal government's progressive reluctance to directly contract services in health and education, transferring a growing sum of resources so that these services might be carried out by the states and municipalities – thus increasing expenses on “intergovernmental transfers.”

In this vein, Gobetti and Orair (2010) reference the increase in transfers to the Unified Health System (SUS) from 2001 to 2011, the Basic Health Care Package and the Family Health Program, Pharmaceutical Assistance, Health Surveillance, AIDS Prevention, Mobile First Aid Service (SAMU), complements to the Development Fund for Basic Education and Development of Teaching (FUNDEF) and Primary and Secondary Education Maintenance and Development Fund (FUNDEB), school meals, the Money Straight to Schools Program (PDDE), and school transport. The authors show that intergovernmental transfers for health and education grew in real terms at a high average rate of approximately 10.7% p.a. As mentioned previously, the government's aggregate consumption measured through national accounts grew at an average rate of 5% p.a. between 2001 and 2011. By cross-referencing this information, one may conclude that a significant part of that consumption was dedicated to maintaining two sectors (health and education) that attend to the basic needs of the neediest, supporting them through federal transfers to other levels of government.

To sum up the expansionary and redistributive mechanism wage expenses and intermediate consumption at the federal and state levels have been relatively stable from 2003-2011 when measured as a percentage of GDP, with a tendency for low dynamism for federal data. However, expenditures on municipal consumption reveal another dynamic. In terms of percentages of GDP, they increased roughly 0.5% between 2002 and 2010. This behavior may be explained by transfers of resources linked to health and education from the federal and state government to municipalities, as previously mentioned. Santos (2012) affirms that municipal expenses on health and education represented 1.3% of GDP in 2002 and rose to occupy 2.1% by 2010.

Since the execution of health and education programs raised expenses on wages, as the vast majority of expenditures in these two sectors go to paying public professionals, the impact on the economy begins with households consumption. The high propensity to consume, given that wages in these sectors are traditionally low, elevates the multiplier effect of municipal spending and injects dynamism into the local economy. In addition, government purchases rise, as intermediate consumption to municipal governments grows. This is not merely a matter of creating demand, however. An array of public services is generated that may sow abilities and skill sets in individuals and social groups, making them more productive, setting off effects on productivity of aggregate labor force and thus improving employees' income.

–Public investment–

From 2004 to 2008, the Brazilian economy underwent a period of rising investment in industry and infrastructure, driven by worldwide demand, which affected the steel, paper, cellulose, and mining industries, and was accompanied by an expansion in domestic credit and capital markets. By 2008, the investment cycle had grown beyond exporting sectors, also taking in those focused on the domestic market and infrastructure (Puga et al., 2010). With the deterioration of the international scenario in the 2009 crisis, this movement was interrupted. Nevertheless, in 2010 the internal market, pushed on by expansionist macroeconomic policy, managed to compensate for

the weak performance of external demand. In the two-year period 2011-2012, however, investments did not manage to recover their former vigor – see Table 2.

Brazilian fiscal policy would seem to be an exemplifying mechanism for “crowding-in.” Government consumption did not need to fall so make public investment grow from 2003-12, and both drove the expansion of private investment, although from 2011-12 the latter was less active.

The high level of public goods and services being offered through government consumption brought with it the necessity to maintain and renew facilities such as schools, hospitals, health centers, etc., which further increased government investment and induced growth in a number of branches of the private sector. In addition to this driving mechanism, fiscal strategy turned to the infrastructure and logistical constructions included in the PAC, petroleum investments in the pre-salt layer, and the various projects meant to prepare the country for global events such as the World Cup and Olympics, to such an extent that one may state that, from 2006 on, growth was progressively led by household and government consumption, and by public investment.

Indeed, the Brazilian economy’s gross fixed capital formation (GFCF) rose in the period being examined, going from 15.3% of GDP in 2003 to 18.2% in 2012, having reached 19.5% in 2010 (Table 2). It is important to note that GFCF rose at an average rate of 6.4% p.a. from 2005-2012, far outstripping the GDP growth rate in this period, inverting a tendency towards low growth (an average of 1% a.a.). It is worth repeating that since 2009, the investment rate has maintained a slower and less stable rhythm, with the exception of 2010; in 2012, it saw a swift fall of 4% (Table 2), settling at 18.1% of GDP.

Santos (2012), Orair and Gobetti (2010), and Orair (2011) clarify the magnitude of public investment in the national economy, resolving long-standing methodological problems of distortions, inconsistencies, and a lack of information.¹¹ Working off of these authors, if one adds up federal, state, municipal, and federal state-owned enterprises investments, it becomes evident that government investments grew progressively, moving from around 2.5% of GDP in 2004 to 4.7% of GDP by late 2010 (Gobetti, 2010). This movement was temporarily interrupted by a hefty reduction in this variable, driven by the 0.4% fall in federal investment in the year 2011 (Ministério da Fazenda, 2012, p. 28), partly a consequence of the restrictive macroeconomic policy that followed the rapid expansion of 2010.

Table 3 presents disaggregated data on investments by government and federal state-owned companies. The following relevant trends become evident: a) there was a return to public investment after 2005, led by infrastructural interventions; b) investments by federal state-owned enterprises expanded rapidly, especially those of the Petrobrás Group, which came to represent 54% of all government investments; these investments grew, influenced by an increase in the production of petroleum and gas through large-scale Petrobrás initiatives (the construction of refineries in Pernambuco, Maranhão, Ceará, and Rio de Janeiro) and the start of petroleum extraction from the pre-salt layer in 2008; c) federal investments in transport infrastructure (highways above all) and federal state-owned companies’ investments in electricity tripled

¹¹ Federal investments are considered to be those carried out directly by the federal government, its capital transfers to states and municipalities, and the investments of federal state-run companies. In terms of a source of data on federal investments, the cited authors use the information from SIAFI (programmatic functional classification), and used DEST’s Budget of State-Run Company Investments for the state-run firms. The data on public investment correspond to the effective sums paid each year, including payments on the current budget plus effective payments on sums from previous years (excluding the sums yet to be paid and still not processed). The choice to opt for these data was led by the greater precision of this methodology, which generates data closer to reality than IBGE’s National Accounts; the latter tend to produce overestimates, among other reasons, for including in the federal level’s GFCF the still-pending sums to be paid (that is, expenses that are undertaken and not paid, and which may never be paid or only come through in later years).

between 2005 and 2011 (going from R\$ 6.8 bn to R\$ 20.5 bn) and, d) federal investments in health and education quintupled, with a total sum going from R\$1,2 bn in 2005 to R\$ 7,1 bn in 2011.

One important aspect of this period is that growth of government investment in infrastructure operates simultaneously with a trend towards the spread of concessions for airports, highways, railways, ports, electricity, and high-speed trains, and auctions in the oil and gas sector. The terms of these concessions varied, but in general they provided conditions favorable to private investment, involving subsidized resources from the BNDES. The State creates spaces for private capital in order to generate a new cycle of sustainable economic growth. Thus, despite possible problems related to the specific terms of these concessions, State action through this channel contributes to generate a crowding-in effect.

One might note that the design of the expansionary cycle supported by consumption and public investment is reaffirmed by Petrobrás' withdrawal of the calculations for the federal primary budget surplus goal in 2008, with Eletrobrás following suit in 2009. This new flexibility in fiscal policy seems to reflect a change in direction for the government, however timid (since the measure does not affect the whole of public investments), in the sense of strengthening the role of the State in the planning and guidance of the economy. The primary budget surplus was reduced from 2009 onward, remaining around 2.5% of GDP, on average, from 2009-12, a level befitting the lower growth rates of the post-global crisis phase, as compared to the 3.5% of GDP primary budget surplus of the 2004-08 phase (Table 1).

Table 3
Public Investment in Brazil - Government and State-Owned Enterprises
2005-2011 (Current R\$ Millions)

Year	2005	2006	2007	2008	2009	2010	2011
Economic Infrastructure	23.410	27.102	34.157	48.024	67.635	83.911	80.403
Petrobrás Group	16.567	18.050	24.066	36.264	51.204	63.211	59.859
Eletrobrás Group	3.208	3.204	3.104	3.878	5.212	5.279	5.157
Transport Sector	3.635	5.848	6.986	7.882	11.219	15.421	15.387
Infraero and Air Transport	566	1.165	1.006	995	1.105	1.306	1.567
Highway Transport	2.593	4.111	4.994	5.107	7.817	10.260	11.212
Railway Transport	236	335	508	923	994	2.549	1.558
Ports and Waterway Transport	240	236	478	857	1.303	1.306	1.050
Other Investments	8.718	11.528	14.318	20.877	24.332	33.335	30.373
State-Owned Enterprises - Financial Sector	1268	1034	1114	1691	2015	2463	2209
State-Owned Enterprises - Other Sectors	406	391	401	398	803	739	646
Government	7.044	10.103	12.803	18.788	21.514	30.132	27.518
Urban and Sanitation Infrastructure	594	1.679	2.359	5.341	5.247	5.353	4.922
Hydric Infrastructure	401	482	559	965	1.749	2.201	1.500
Education and Health Infrastructure	1.225	1.870	2.130	3.124	3.868	7.109	7.060
Other - non-classified	4.824	6.073	7.755	9.359	10.650	15.470	14.036
Total Federal Public Investments	32.127	38.630	48.475	68.901	91.967	117.246	110.776
Total in % of GDP	1,6	1,6	1,8	2,3	2,8	3,1	2,7

Source: Elaborated by Santos (2012) on the base of atualized data of Orair and Gobbet (2010).

–Public spending on income transfers–

–Social spending and its direct effects on income–

One of the defining characteristics of fiscal policy from 2003-2012 lies in the importance taken on by income transfer expenditure. Social Security Transfers and Subsidies (known as TAPS) are, in the IBGE national accounts' definition, public resources meant for the private sector, with no equivalent counterpart, and which do not weigh in the government's offering of public goods and services.

The study of the impact of income transfers as a strategic element of the Brazilian economy's new pattern of growth may create a number of connections, as indicated in Section 2. The first connection, between autonomous spending in the social sector and the level of economic activity, is decisive in directly driving household consumption. The elevated magnitude of this spending and its trend towards monetary income for a population with a high propensity to consume (needy seniors, pensioners, the sick, accident victims, low-income households, and the unemployed) transformed it into an important autonomous component of aggregate demand, influencing the rhythm of economic growth over the past decade and creating a powerful domestic mass consumer market.

The second connection is drawn between income transfers and incentive to private investment – capital formation, in other words. And the most important reason for this, as Keynes (1936) pointed, is that capital is not a self-sufficient entity, existing independently of consumption, and any bolstering of the propensity to consume, which may be considered a permanent phenomenon, bolsters the demand for capital. The third connection is formed between income transfers and the reduction of poverty and social inequality. This was likely one of the most important characteristics of the 2000s – when, according to CEPAL, a period of growth was accompanied by income distribution for the first time in the economic history of Brazil and South America as a whole (CEPAL, 2010; 2012).

First of all, it is convenient to clarify the definition of income transfers. According to Santos (2012), TAPS comprise nine items: 1) benefits from the General Social Security Regime (RGPS); 2) the TAPS paid by state and municipal governments to retired public servants; 3) federal payments to retired federal public servants; 4) withdrawals from the Employment Time Guarantee Fund (FGTS); 5) expenses on unemployment insurance and wage bonuses, financed by the Workers' Support Fund (FAT); 6) benefits associated to the Organic Law of Social Assistance (LOAS); 7) public transfers made to private nonprofit institutions (TIPSFL); 8) benefit payments from the Bolsa Família Program; and 9) subsidies to the private sector.

The TAPS data used in Table 4 correspond to the figures from IBGE's National Accounts from 2003-2009, and calculations by Santos (2012) for the same period, as well as projections for 2010 and 2011. The information shows a slight ascendant tendency for TAPS, which rose from a level of 14.5 of GDP in 2003 to 14.95% in 2011. In 2009, in an effort to compensate for the slowdown of the domestic economy in the face of the global crisis, TAPS grew to 15.21% of GDP. In recent years, TAPS seem to have leveled out at around 15% of GDP.

What is truly relevant is that the composition of TAPS has changed; transfers sent directly to lower-income households have taken on greater weight. As may be seen in Table 4, expenses on benefits from the Organic Law of Social Assistance (LOAS), along with Bolsa Família Program and benefits financed with resources from FAT (unemployment insurance and wage bonuses) were expanded. Smaller but significant increases were seen in retirement benefits, pensions, and other benefits from the General Social Security Regime (RGPS). Meanwhile, FGTS withdrawals and subsidies to companies remained stable over the past decade; and transfers to federal, state, and municipal public servants fell (columns 2 and 8 of Table 4).

The real increase in the minimum wage had a strong impact on benefits' rise in value, given the legal connection between them, which contributes to increase the disposable income of those who request the State aid (IPEA, 2010, p. 63). The benefits from LOAS are equivalent to a minimum

wage, as are benefits financed by FAT resources (unemployment benefits and wages bonuses), and nearly 60% of the welfare benefits offered by RGPS. The policy of increasing the purchasing power of the minimum wage explains much of the expansion of TAPS during the period at hand.

The rise in expenses on transfers was also tied to a growth in coverage. In 2002, there were 20,752,506 active recipients of welfare benefits. By 2011, this figure had grown to 28,909,419 an increase of around 40%, with 8,156,913 more recipients included. As for the value of these benefits, one sees that in 2002 it came to R\$ 6,871 million, whereas by 2011 it had risen to R\$ 23,154 million, a nominal increase of 237% (Historic Data Base of RGPS). According to Fagnani (2012), current coverage extends to over 110 million people, including indirect beneficiaries (family members).

Table 4

Evolution of TAPS in Brazil (% of GDP) - 2002-2011

Year	Retirements and Pensions of Federal Government Servants	RGPS	FAT	LOAS	FGTS	Bolsa Família Program	Retirements and Pensions of State and Municipal Government Servants	TIPSFL	Subsides to Private Sector	Errors and Omissions (2)	TOTAL (1)
2002	2,1	6,0	0,5	0,2	1,3	0,1	2,7	0,4	0,2	0,5	14,1
2003	2,2	6,3	0,5	0,3	1,2	0,1	2,6	0,4	0,2	0,8	14,6
2004	2,1	6,5	0,5	0,4	1,1	0,2	2,5	0,5	0,1	0,3	14,1
2005	2,0	6,8	0,6	0,4	1,2	0,3	2,4	0,5	0,2	0,1	14,5
2006	2,0	7,0	0,7	0,5	1,3	0,3	2,4	0,5	0,2	0,1	14,9
2007	2,0	7,0	0,7	0,5	1,4	0,3	2,4	0,5	0,2	-0,2	14,8
2008	2,0	6,6	0,7	0,5	1,4	0,4	2,3	0,5	0,1	-0,1	14,4
2009	2,1	6,9	0,9	0,6	1,5	0,4	2,4	0,6	0,2	-0,3	15,2
2010	1,9	6,8	0,8	0,6	1,3	0,4	2,2	0,6	n.d.	n.d.	14,8
2011	1,9	6,8	0,8	0,6	1,4	0,4	n.d.	0,6	n.d.	n.d.	15,0

Source: Santos (2012), based on data from : Banco Central do Brasil, Caixa Econômica Federal, Execução Orçamentária dos Estados e Municípios (STN), Finanças do Brasil (STN), IBGE, Base SIGABRASIL, Resultado Fiscal do Governo Central (STN), Contas Nacionais (IBGE), SIAFI/STN.

TAPS = Social Security Transfers and Subsidies to the Private Sector.

RGPS = General Social Security Regime.

FAT = Workers' Support Fund.

LOAS = Organic Law of Social Assistance.

FGTS = Employment Time Guarantee Fund.

TIPSFL = Transfers to Private Nonprofit Institutions.

TAPS did, indeed, grow and positively affect personal income distribution. In targeting a broad swath of the population, with lower income and an elevated propensity to consume, they offer a potent multiplier effect on GDP and income. Simulations run by Silveira et al. (2011) for the period 2008-2009 (Table 5) demonstrate that spending on social policy principally alter the income of the segment with least purchasing power (1st quintile). The original earnings of this sector (prior to State intervention) came to just 1.0% of total income. After retirement benefits, pensions, support, Bolsa Família Program, unemployment insurance and other benefits, the percentage rose to 2.4%. But income after government transfers, when added to social spending on education and health and deducted from indirect and direct taxes, rises to around 4.2% of total income for the 20% poorest, a higher sum than the original income (without State intervention). The same table also shows that the second quintile has attained a notably higher income after government intervention, from an original level of 4.6% to a new high of 7.2% of total income after transfers and health and education spending.

Another recent study, this by IPEA, introduced important results in the move to capture the effects of government spending on economic growth (GDP) and household income (IPEA, 2010). The

study in question simulated shocks in a number of types of autonomous spending and reconstructed the economic cycle, using the National accounts and a Social Accounting Matrix for Brazil in the year 2006. It concluded that, in 2006, the average multiplier effect of autonomous spending in general (investment, exports, and government spending) was 1.57 – that is, for every R\$ 1.00 spent, sent abroad or spent by the government, an additional R\$1.57 of GDP would be generated. As for aggregate household income, which is a more appropriate income concept for measuring well-being, the average multiplier of autonomous spending is 1.17 – that is, for every new 1% of GDP in investments, exports, or government spending, households would see their income increase, on average, by 1.17%.

The use of the IPEA methodology mentioned above (2010) allowed for a better understanding of the specific multiplier effect exerted by social spending on GDP, and on income over the course of the economic cycle; it indicated that the shock of a hypothetical increase of 1% in GDP on social spending would bring a multiplier of approximately 1.37. However, certain sectors of social spending hold significantly higher GDP multipliers than others. For example, education and health have the greatest multipliers of GDP (1.85 and 1.70, respectively), while expenses on Bolsa Família Program brought a multiplier of 1.44, the Continued Payment Benefits (BPC) came to 1.38, and welfare benefits from RGPS came to 1.23.¹² Moreover, the study shows that spending on social programs is just as important for GDP growth than commodity exports, which have a multiplier of 1.40.

Table 5
Per Capita Distribution of Nominal Household Income, by Income Strata (2009)

Estatisitcs	Income Share of Each Quintile (%)				
	Original Income (1)	Initial Income (2)	Disposable Income (3)	Post-Tax Income (4)	Final Income (5)
1° Quintile	1,0	2,4	2,6	2,2	4,2
2° Quintile	4,6	5,9	6,2	5,7	7,2
3° Quintile	9,4	10,4	10,9	10,3	10,4
4° Quintile	18,1	18,3	18,8	18,3	14,7
5° Quintile	67,0	63,0	61,6	63,5	63,5
Gini Coefficient (%)	64,3	59,1	57,6	59,8	50,0
Average (R\$ - January 2009)	596,5	733,0	662,4	561,6	663,5

Fonte: Silveira et.al. (2011). Apud Castro, 2013.

(1) Original income earning from labor, sells, interests, rents, grants, etc (before State intervention).

(2) Initial income = original income plus retirements, pensions, social assistance transfers, unemployment insurance, etc.

(3) Disposable income = initial income minus income taxes.

(4) Post-tax income = disposable income minus indirect taxes.

(5) Final income = post-tax income plus education and health spending.

The IPEA study in question (2010) indicates that the effect of social spending on household income is more relevant than its effect on GDP. A one-percentage increase of GDP in social spending raises household income by 1.85%, on average. In this case, income transfers have a heftier impact on household income when compared to other social spending; expenses on Bolsa Família Program, BPC, and RGPS have a multiplier effect of 2.25, 2.20, and 2.10, respectively, while the multiplier of education spending is 1.67, with 1.44 for health.

–The flip side: social spending and tax collection–

Another important result of the same IPEA study (2010) speaks to the effect of social spending on the growth of revenue from taxes, fees, and social contributions, given their positive impact on household and firms incomes. The social accounting matrix revealed that 56% of the value of social spending returns to the Treasury in the form of taxes and social contributions, after passing

¹² As the IPEA author clarifies (2010), the lower GDP multiplier for income-transfer expenses is tied to the lower number of times that the resource circulates in the economy, as indicated by the Social Accounting Matrix and National Accounts. Education spending, on the other hand, circulates more in the economy than a direct income transfer to families.

through the entire process of income multiplication generated by those very expenditures. Thus, the multiplier effect in subsequent exercises guarantees a tax return to the government, letting social spending finance itself in future.

Without a doubt, the improvement in income distribution born of social policies – and, above all, from the expansion of the labor market – had a positive effect on the contributive capacity of a population previously excluded from the system. The post-2004 landscape marked the start of a period of much steeper growth in the collection of social contributions that finance Social Security, corroborating the thesis that the Brazilian social protection system becomes financially viable when fiscal policies of raising social spending kick off the process of boosting aggregate demand; later, and consequentially, revenue from social contributions rises, allowing the policy of progressive spending to continue.

Studies like those by Orair (2012) and Santos and Costa (2008) identify the specificity of the change in the tax burden after 2004, a period that saw greater tax breaks alongside a rise in the gross tax burden, from 31.7% of GDP in 2003 to 35.3% in 2011. The authors claim that the rise in the tax/GDP ratio sprang from the increase in income from labor and profits, bases for taxation and social contributions which grew faster than GDP.

According to Orair (2012), tax revenues from labor income expanded with the increased formalization of the labor market after 2004. The regressive nature of the tax system was only exacerbated. Personal income taxes, payroll taxes, and social contributions rose as a percentage of GDP, from 9.5% in 2002 to 10.6% in 2007; after the economy's slowdown, they rose again to a high-water mark of 12.2% in mid-2012. The increases provoked by these taxes came to nearly three-quarters of the total growth in the tax burden over the period 2002-2012. Of the 3.5% increase in the total tax burden, 2.6% came from taxes on labor income, and 0.9% from taxes on profits. The main source of funds for welfare, the Social Contribution to the General Social Security Regime (RGPS) grew at an average rate of 13.9% p.a. from 2004-2009, tracking along with the average increase of 13.2% p.a. in wages.

The other sources of revenue meant to finance social security – the Social Contribution on Net Profits (CSLL) and the Contribution for Social Security Financing (COFINS) – also saw significant growth from 2002-2012, which only increased after 2004. COFINS grew 1.7 p.p. above GDP over the whole period, while CSLL grew 0.6 p.p. Although the Provisional Contribution on Financial Flows (CPMF), created to finance the social security system in Brazil, was eliminated in 2007, collections for the social security system continued to expand.

It has become clear that, while the government has managed to balance revenues and expenditures on the social side, the multiplier and redistributive effects of this policy, while significant, become limited by the weight and regressive nature of the tax burden.

–Public expenditures on interest payments–

Expenditures on interest payments contribute little to GDP growth, and plenty to the concentration of wealth.

In 2003, public spending on interest payments reached the high mark of 8.5% of GDP; but this has been followed by a continual tendency towards a fall in this indicator, which has stabilized around, on average, 5.25% of GDP from 2009-12 (Table 1). Historically, public sector expenditures on debt service have grown sharply in periods of severe currency turbulence – notably in 1999, 2002, and 2003 – but the international financial crisis that struck the country in the last trimester of 2008 did not lead to a rise in interest rates. Unlike previous critical periods, the federal government

reacted by pulling back both on monetary policy (in reducing the base interest rate) as well as fiscal policy (reducing the primary surplus).

One might note that this behavior – and, along with it, the reduction in the government’s financial expenses – was facilitated by a long-standing policy initiated in 2004, meant to change the management of the federal public debt. Since then, the debt indexed to the most volatile variables in the market – exchange and interest rates – has been gradually substituted by pre-fixed debt, or inflation-indexed debt (indexed to IPCA). Given the favorable outcome for the Brazilian economy post-2004, this management strategy seems to have proved itself less onerous for the public sector, as well as making government financial expenditures more predictable and manageable.

Macroeconomic Constraints on Social Policy: Synthesizing Trends under the Lula and Dilma Administrations

Theoretical analyses have shown that, from a Keynesian approach, the distributive effectiveness of social policies rises along with the macroeconomic impact of public spending as a *whole* – not just on social expenditures – given the combination of three effects: the multiplier effect, which acts on household consumption, and the crowding in and crowding out effects (CIE and COE), which act on private investment. These effects, meanwhile, are constrained by a broad array of variables, both structural and macroeconomic, as well as the nature of fiscal policy regarding two elements: the allocation framework and the financing of public spending.

In analyzing these constraints, one may argue that the redistributive effects of social policies tend to be amplified by the following conditions: a) the higher the total level of public spending; b) the higher the propensity to consume of the groups being benefited by public spending; c) the lighter the tax burden; d) the lower the economy’s propensity to import; e) the greater the prevailing degree of confidence (or optimism) in the economy; f) the lower the prevailing interest rates on the domestic asset market. The latter two act favorably on the CIE and COE, magnifying the first and containing the second. The rest contribute to increase the multiplier effect of public spending.

As for spending allocation, we return to the necessity to reconcile social policies based on income transfers (with a high multiplier effect, given their direct beneficiaries’ high propensity to consume) with a broader and more consistent policy of economic development. In step with the reduction of poverty and income inequality, it is key to attenuate the economic underdevelopment of the nation itself, which underscores the need for income-transfer policies. This calls for a public spending structure with more space for expenditures on investments (in infrastructure and public services, among other sectors) and even government consumption to allow for permanent programs to support research, innovation, education, etc. Given the government’s budgetary restrictions, as set by the tax burden and its borrowing capacity, a policy along these lines would require some degree of sacrifice on the part of “strictly social” policy – and hence its multiplier effect as well – in the short term. In a longer view, however, this tack tends to increase the distributive effectiveness of public spending through the crowding-in effect.

As for how to structure the financing of these expenditures, it is difficult to point to an “ideal” structure, given a clear tradeoff between two viable sources. On one hand, the lighter the tax burden, the greater the multiplier effect of spending – which, in principle, would favor its redistributive effect and possibly the CIE as well. On the other hand, a lower taxation level may restrict the government’s ability to implement social policies, in limiting the total amount of spending possible. This limit may be attenuated by borrowing, a resource potentially restricted by the COE.

As shown, unlike the multiplier and crowding-in effects, the crowding-out effect depends less on the specific conditions around public spending policy – the sum of G , its allocation, or even, to a

certain extent, the magnitude of the deficit to be financed. The same level of spending and deficit that produces a COE in a period of monetary tightening and/or of high liquidity preference would not produce this effect in a more favorable environment. In short, the COE is not a direct consequence of the deficit, nor of the spending itself, but rather a possibility influenced by the monetary environment in which the deficit is being financed. This environment is regulated by monetary policy, and not by the fiscal measures. As such, an occasional reduction in the distributive effectiveness of a given public expenditure policy resulting from the crowding-out effect ought to be more appropriately attributed to a lack of coordination between this policy and the monetary policy.

Having considered all these conditions, an analysis of the Brazilian case shows that, in the field of macroeconomic policy, a defining characteristic of the Lula and Dilma administrations has been the conciliation of an orthodox (non-Keynesian) model of macroeconomic policy with the use of developmentalist policies (generally attuned to a Keynesian approach), which had been banned from any prescription for State action in Brazil since the early 1990s.

The reigning conservatism in the management of fiscal and monetary policy, though weakening over the course of the 2nd Lula administration, certainly operated as a brake on what might have been the greater distributive impact of the Lula and Dilma administrations' social policies, by virtue of three macroeconomic effects: a) restricting the multiplier effect of public spending through a moderate increase in the tax burden, linked to a rise in the regressivity of its distribution between wages and profits; b) restricting its crowding-in effect, apparently confirmed by the stability of the economy's investment rate, hovering around a pitiful 16% of GDP before 2006, and its moderate climb to 18% from 2007-12, which was a period of a greater expansion in public investment; c) favoring the crowding-out effect, given restrictions on liquidity generated by policies under Lula's first administration that kept real interest rates high.

On the other hand, the developmentalist bent of this "hybrid" model of macroeconomic policy lessened the restrictive effects on social policy's distributive effectiveness, constraints that was imposed by the conservatism of fiscal and monetary policy. In addition to the emphasis on social programs, the developmentalist policy pursued under Lula and Dilma was guided by a return to public investment, not just from the public administration itself but also through federal state-owned companies; by programs meant to stimulate private investment and innovation, with a strong boost for federal public credit, especially through the BNDES; by policies of "financial inclusion," such as consigned credit, microcredit, and housing credit, all led by federal banks (the BB, BNB, and CEF, respectively); and by the policy of a continual real increase in the minimum wage. At the same time, these policies contributed to increasing the multiplier and crowding-in effects of public spending, partially compensating for fiscal and monetary restrictions.

Though generally beneficial for economic development, this policy strategy seems to have been relatively inefficient in terms of promoting a significant change in the conditions of external competitiveness, and thus in the country's position on the international commercial stage as a whole. From the perspective of the macroeconomic and distributive effects of the public expenditures at the base of this developmentalist policy, it is important to note that, in addition to increasing domestic income, it must be able to keep this income from flowing out via imports, which reduce its multiplier effect and possibly the CIE as well. Table 2 demonstrates that this was not the case in Brazil from 2003-12, a period in which imports grew, on the whole, at a higher rate than GDP, as well as household and government consumption and investment. The only exceptions were the years 2003 and 2009, which saw a sharp deceleration in economic activity domestically and abroad. If this strategy of foreign positioning is maintained, a large part of the developmentalist efforts of the Lula and Dilma years will be for naught.

Finally, a disaggregated analysis of public spending shows that, while restricted by the policy of high primary budget surpluses during the period, public expenditures also served a compensatory

and largely favorable function in the redistribution of income, given the following: a) though stable as a proportion of GDP, total public spending expanded in absolute terms over the course of the whole period; b) the expansion of government consumption was led by health and education; c) public investment grew significantly, both in absolute terms and as a percentage of GDP – that is to say that this investment expanded, on average, at a higher rate than the economy as a whole; d) expenditures on transfers rose little in relation to GDP, but their composition was altered to favor income redistribution – that is, reoriented towards the lower income levels; e) expenditures toward interest on the public debt tended to decrease during the period, while remaining a major restriction on nonfinancial public-sector expenditures.

Conclusion

Having noted that social policy is not created in a vacuum, but rather as a subset of fiscal policy and hence of macroeconomic policy as well (which are also ruled by other goals), this article analyzed the nature of these constraints in Brazil during the years 2003-2012, seeking to evaluate their possible contribution to the redistributive effectiveness of social spending under the Lula and Dilma administrations.

Without failing to acknowledge the successes of the Lula and Dilma administrations' spending policies, one must conclude that, in spite of the rising significance of expenditures on income in Brazil, and despite the fall in inequality, income distribution remains brutally unequal: 63.5% of all income is still in the hands of the 20% wealthiest in the country (data from 2009). Reconciling greater economic growth with lower income inequality demands that government spending policies address income distribution more fully. To this end, two strategies are crucial: a) raising per capita social spending, increasing the number of income transfer beneficiaries and universalizing the services offered by the State; b) attenuating, insofar as possible, the structural, fiscal, and monetary restrictions on the distributive effectiveness of public spending policy, particularly the propensity to import, the regressive tax system, and the policy of high interest rates – which, beyond the crowding-out effect, impedes a more notable reduction in the government's financial expenditures.

Tax policy, for example, had room to be less conservative, given the continuous fall in the net public debt and the prevailing greater economic growth, which favored an increase in government revenues. Tax breaks could have been broader, and distributive adjustments in the burden could have been deeper.

Monetary policy also had the opportunity to be less restrictive. The period 2003-12 was marked by ample liquidity and low interest rates on the international market, sparking a strong influx of capital to Brazil (FDI and portfolio investment), the accumulation of international reserves, and an appreciation of the exchange rate, which favored control of inflation. Under the Lula and Dilma administrations, monetary policy ran in opposition to fiscal policy, limiting its distributive effects. It is no coincidence that its results in terms of economic growth and of income distribution pale in comparison to the sharp rise in public spending. In short, the Brazilian economy's solid fundamentals during the period indicated that it would have been possible to stimulate greater growth and income distribution under current fiscal policy.

Facing the problem of social inequalities in Brazil will undoubtedly demand actions that go beyond social spending policy. Overcoming the centuries-old social wounds that have followed the evolution of the Brazilian economy calls for an active, prolonged, and systematic policy of spending over a variety of sectors and State functions, the final extent of which must be driven by the goal of full employment. In turn, income redistribution policy will demand changes in the tax structure, inverting the direction of the tax burden so that workers and the needy do not carry the

weight of a more progressive social spending policy. A more incisive framework for taxing high profits, large estates, speculative earnings, and financial wealth has become quite a political liability in recent years. Taxation and spending must be coordinated and complementary so that active fiscal policy's redistributive efforts are not simply limited to spending, hampered in its efficacy by the staggeringly regressive tax burden.

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