Brazilian countercyclical economic policies as a response of the 'great recession': a critical analysis and an alternative proposal to ensure macroeconomic stability

André Moreira Cunha[*]

Fernando Ferrari-Filho[**]

Julimar da Silva Bichara[***]

Abstract: This paper analyses the Brazilian macroeconomic policy and its economic performance as a response of the 'great recession'. First, we present the theoretical analysis of the Keynesian economic policies to coordinate and stabilize the dynamic of monetary economies. Secondly, we analyse the Brazilian macroeconomic policy efforts to overcome the 'great recession' impacts, as well as we show the relationship between this policy and the main economic indicators, such as GDP and inflation. In doing so, we argue that, despite the fact the Brazilian economic policies response to the global financial crisis and 'great recession' seem remember Keynesian economic policies, it is not possible to argue that Brazilian economy can be considered a Keynesian showcase. Finally, we present, in the light of the Keynesian theory, a coherent economic strategy to sustain the dynamism of the Brazilian economy.

Key Words: Great Recession, Brazilian economy, Keynesian theory.

JEL: O2; O11; O54.

1. Introduction

Since the 1990s the globalization process – that is to say, the increased international mobility of goods, services and capital and trade and financial liberalization – and the conventional economic wisdom, based on the New Consensus Macroeconomics (NCM) framework – i.e., inflation targeting regime, fiscal surplus regime and flexible exchange rate regime – has been challenged by the increasing instability of the exchange rate markets, especially in emerging countries, such as the Mexico peso crisis in 1994-95, the Asian crisis in 1997, the Brazilian crisis in 1998-99 and the Argentinean crisis in 2001-02, and financial markets, more specifically the subprime crisis in the United States in 2007-08.

As is well known, the effects of these crises are not neutral in economic and social terms. Moreover, focusing attention on the current global financial crisis (GFC), which began with the subprime crisis, and, as a consequence, the 'great recession' (GR), we observe that the GFC and GR have substantially altered the dynamic process of the international economy and represented a major turning point. Governments of both the G7 countries and the emerging countries have responded to the GFC and GR with massive fiscal and monetary stimulus, by rescuing financial and non financial corporations and by reintroducing a more hands on approach to deal with the economic problems (Griffith-Jones, Ocampo and Stiglitz, 2010; Arestis, Sobreira and Oreiro, 2011). Brazil was not an exception. Alongside with the countercyclical economic policies aimed to mitigate the impacts of the international crisis, in the last years the Brazilian government

[*] Associate Professor at Federal University of Rio Grande do Sul and Researcher at National Research Council, Brazil.

[**] Full Professor of Economics at Federal University of Rio Grande do Sul and Researcher at National Research Council, Brazil

[***] Associate Professor at Autonomous University of Madrid, Spain.

has implemented a sequence of heterodox economic policy that seems to replace the NCM's economic policy adopted in 1999.

This paper analyses the Brazilian macroeconomic policy and its economic performance as a response of the GFC and GR. We argue that Brazil has to face at least two interconnected major issues: first, it must re-orient its macroeconomic policy in line with the new global environment of higher financial instability and less buoyant markets; and, secondly, it has to implement a macroeconomic model and some structural reforms to ensure price stabilization, economic growth and full employment.

Arguments and evidences are organized as follows: first, we present the theoretical analysis of the Keynesian economic policies to coordinate and stabilize the dynamic of monetary economies; secondly, we analyse the Brazilian economic performance and the macroeconomic policy efforts to overcome the GFC and GR impacts. In doing so, we argue that, since 2008, Brazil has experienced a period of transition, where the return of Keynesian policy elements has not been strong enough to overcome previous neoliberal (NCM framework) tendencies; thirdly, we present, in the light of the Keynesian theory, a coherent economic strategy to sustain the dynamism of the Brazilian economy; and, finally, we summarize our arguments.

2. Keynesian economic policies for coordinating the dynamics of the monetary economies[1]

We argue in this section that the Keynesian paradigm offers an alternative rationality to the reconstruction of a coherent set of short-run economic policies – these policies aim at stabilizing effective demand in order to guarantee full employment – and long-run structural policies – that is to say, development policies to create a social and economic environment in which wealth creation is compatible with a reasonable pattern of income distribution – a designed to develop an emerging country, such as Brazil. In other words,

In *The General Theory of Employment, Interest and Money* [General Theory], Keynes (1964) proposed some economic policies, such as fiscal, monetary and income, in order to address the fact that "[t]he outstanding faults of the economic society in which we live are its failure to provide for full employment and its arbitrary and inequitable distribution of wealth and incomes" (Keynes, 1964: 372). Besides, in his *International Clearing Union* Keynes (1980a) presented an international monetary agreement based on (i) an international currency, *bancor*, (ii) a fixed, but adjustable, exchange rate, and (iii) the control of capital movements to reduce the entrepreneurial uncertainties of international monetary economies.

Keynesian economic policy, in both conception and practice, aims at maintaining levels of effective demand for the purpose of mitigating involuntary unemployment by stabilizing business peoples' state of

[1] This section is based on Cunha, Ferrari-Filho and Prates (2011) and Terra and Ferrari Filho (2012).

confidence.[2]

The focus of Keynes proposal was the power that the State should hold to steer the economic system, given that, if left to the free workings of market, the economic system and economic policies themselves – unless there was coordination among them – would contribute not to solving, but to enlarging the main problems of monetary production economies.

In this regard, the role of the State is fundamental to restoring macroeconomic stability, that is to say, to keep inflation under control, to assure sustainable economic growth and to maintain equilibrium in the balance of payments. For that purpose, the Keynesian macroeconomic policy should be coordinated in such a way as to (i) operationalize fiscal policies designed to expand effective demand and reduce social inequalities, (ii) make for more flexible monetary policy so as to galvanize levels of consumption and investment and (iii) coordinate and regulate financial and foreign-exchange markets in order to stabilize capital flows and exchange rates. In short, taking up the idea of Minsky (1986), there is a need for State intervention and regulation through *Big Government* and *Big Bank*.

Keynes (1964) was aware that (i) there are causal relations among monetary, fiscal and exchange rate policies, (ii) the cyclic instabilities in monetary economies have unpredictable effects on the state of entrepreneurs' confidence, leading to stagnation in employment and income creation, and (iii) uncoordinated economic policies, by failing to bolster agents' confidence in effective demand for their products, intensify the potential amplitude of economic system fluctuations. Thus, he accordingly prescribed ways of conducting/coordinating economic policies so that they would assure the smooth functioning of the economic system. In this way, Keynes (1964: 378)' idea of 'socializing investment' should be understood, as can be inferred from Ferrari-Filho and Conceição (2005), as the State's participating actively in the economy, through economic policies that signal to entrepreneurs the existence of effective demand for their production.

Moreover, such conduction/coordination does not entail a planned economy, for that would eliminate entrepreneurial action and transfer it to the agencies in command of central planning; in such circumstances, all that would remain to the entrepreneur would be to carry out the planners' decisions. What Keynes proposed as economic conduction/coordination is economic policy action closely attuned to whatever "will co-operate with private initiative" (Keynes, 1964: 378). This complementation between State and private initiatives is also underlined by Minsky (1986: 295-296):

> "once we achieve an institutional structure in which upward explosions from full employment are constrained even as profits are stabilized, then the details of the economy can be left to market processes".

---

[2] For instance, nowadays, in which the globalization process tends to disrupt not only domestic markets but also whole countries by establishing an extended financial casino, Keynesian economics has provided the theoretical underpinning for economic policies undertaken in response to the GFC and GR. For details, see Arestis, Sobreira and Oreiro (2011).

How is the *modus operandi* of the State intervention? Keynes (1964) stresses that monetary and, especially, fiscal policies are most important for State intervention to exercise proper guidance, along with the prominent role of exchange rate policy.

On this particular, Keynesian economic policies are structured so as to make it possible to manage endogenous features in monetary, fiscal and exchange rate policies (Skidelsky, 2009). Nowadays, the globalization process tends to disrupt not only domestic markets but also whole countries, especially emerging countries, by establishing a kind of extended financial casino; the current international financial crisis is a good example to the nature and problems of the globalization process.[3]

Keynesian fiscal policy has direct impact on aggregate demand – more specifically on consumption and investment – and constitutes the main instrument of state intervention. It is anchored in tax policy and in administering *public expenditure* (importantly, a completely different category from *public deficit*).

Tax policy is intended, on the one hand, to enable unequally distributed income to be reallocated, either by income tax or inheritance taxes. By expanding the State's spending capacity, on the other hand, it allows aggregate demand to be boosted in the economic system. Lastly, as Keynes (1972) points out, tax policy can also serve to increase available income, thus fostering expansion of effective demand.

Meanwhile, administration of public spending, from Keynes (1980b)' original perspective, centers on constituting two budgets: the "ordinary" or "normal" (current) budget and the capital budget. The current budget relates to the funds necessary to maintain the basic services that the State provides to the general public. Although, as explained by Kregel (1985), Keynes believed in the importance of these current expenditures, particularly social insurance transfers, as automatic stabilizers of economic cycles, the current budget should always be in surplus.

To illustrate this concern with budget balance, Keynes (1980b: 204-205) argues, as part of discussions over what kind of social security system should be built in England after World War II, that it would constitute "a severe burden to meet simultaneously pensions against which no funds have been accumulated and to accumulate funds for future pensions".

How then would countercyclical fiscal policies be achieved? Keynes (1980b: 278) says that

> "[i]t is probable that the amount of [current budget] such surplus would fluctuate from year to year for the usual causes. But I should not aim at attempting to compensate cyclical fluctuations by means of the ordinary budget. I should leave this duty to the capital budget."

To Keynes (1980b) the other component of the public budget was the capital budget. This discriminates public expenditures relating to productive investments made by the State in order to maintain stability in the economic system. Such investments should be made by public or semipublic bodies,

---

[3] For a more detailed discussion of the globalization process and the global financial crisis, see: Griffith-Jones, Ocampo and Stiglitz (2010) and Arestis, Sobreira and Oreiro (2011).

providing this was done with the clear intention of regulating the economic cycle by supporting entrepreneurs' expectations of effective demand for what they decided to produce in the present.

The Keynesian capital budget could run into deficit, but the surpluses necessarily obtained on the current budget would finance this. Accordingly, any debt occasioned by the capital budget deficit would relate not to State borrowing activities on the financial markets – which might arouse agents' doubts as to the State's solvency and, consequently, its ability to continue fostering entrepreneurial expectations – but rather "thus gradually replacing dead-weight debt by productive or semi-productive debt" (Keynes, 1980b: 277).

In this way, Keynesian public expenditure policy hinges on balancing the overall budget, even though this may be achieved in the short term by a surplus in the current budget and deficit in the capital budget.

An important rule about operationalizing the capital budget is that the public investments must not rival private investments, but must be complementary to them (Carvalho, 1999). Also, the public investments are normally related to social investments, and "[their] decisions (…) are made by *no one* if the State does not make them" (Kregel, 1985: 37, emphasis in the original).

Minsky (1986), without resorting to the Keynesian notion of segregated budgets and even underlining the importance of occasional short-term budget deficits, argues that private investment deficiencies need to be balanced by *Big Government* public spending. In monetary economies, he explains, declining profits mean frustrated entrepreneurs and may trigger a whole chain of non-payment of financial liabilities, tending to lead to a critical situation among the institutions operating on financial markets. In this intricate and unstable scenario, where the real and monetary-financial dimensions of the economy are inseparable and mutually dependent, "Big Government must be big enough to ensure that swings in private investment lead to sufficient offsetting swings in the government's deficit so that profits are stabilized" (Minsky, 1986: 297).

Minsky (1986) also proposes that action by *Big Government* should coordinate with action by a permanent *Big Bank*, on the one hand, regulating the activities of monetary and financial institutions (which, incidentally, are operating with much more unstable financial innovations than those contemplated by Keynes in the first half of the 20th century) so as to deter them from constructing increasingly fragile positions and, on the other hand, at the first sign of loan defaults, acting as lender of last resort. In this way, the *Big Bank*'s monetary policy should maintain the monetary-financial system in sound, credible financial positions, so that, should a mounting lack of confidence among entrepreneurs lead to unemployment and income stagnation, no spate of bankruptcies will ensue and lead the economic system into a major depression.

If conducted continuously, automatic stabilization will not focus on containing moments of economic crisis; rather, whenever signs of surplus aggregate demand are perceived, capital budget investment projects will be postponed so that expanding national income is not corroded by any inflation resulting from scarce supply. Therefore, action to contain short-term fluctuations should not be limited to fostering periods of expansion, but should also be applied to avert episodes of surplus aggregate demand.

Returning to Keynes, his proposal of a capital budget rests on the principle that, by fostering productive institutions, it is responsible for generating its own surplus in the long run. In order to balance public finances, it is enough in the short term not to incur a current deficit, given that surpluses called for in the current budget finance any deficits in the capital budget. On the other hand, return on public investments tends, in the long term, to balance the capital budget itself. In Keynes' (1980b: 319-320) words, the "capital expenditure would, at least partially, if not wholly, pay for itself".

The basic interest rate set by the Monetary Authority should be fully public knowledge and be held to a level considered *normal* by that public, true to its conventions, because as pointed out by Carvalho (1999: 275, translated by the authors and emphasis added) "people form an expectation of the *normal* interest rate and expect current rates to gravitate around it". Accordingly, as the future is incalculably unknown, agents will always attempt to anticipate the interest rate, which they monitor closely so as not to incur high investment opportunity costs.

Any suspicion of oscillation in the interest rate from what is regarded as normal will produce modifications in investors' spending decisions as they stake their wagers for best monetary profit. That is why there should be no secrecy on the part of the Monetary Authority as to interest rate levels over time. Also, there should be no unexpected, significant alterations in the basic interest rates in the economy, so that constancy is credible and agents' preference for liquidity will thus demand lower premiums.

Monetary policy acts indirectly on economic activity, initially impacting liquidity levels on the monetary and financial markets. By affecting the liquidity of the various different monetary and financial assets, monetary policy has repercussions on interest rates in the economy and thus influences the real side of the economy (Minsky, 1986).

In this way, low interest rates stimulates investment and promotes "the euthanasia of the rentier" (Keynes, 1964: 376).

At times of a widespread lack of confidence among economic agents, monetary policy can contribute little to balancing the economic cycle, as seen in the illustration represented by the familiar *liquidity trap*. For this reason, Keynes (1980b: 350) argues that

> "[i]t is not quite correct that I attach primary importance to the rate of interest. What I attach primary importance to is the scale of investment and an interested in the low interest rate as one of the elements furthering this. But I should regard state intervention to encourage investment as probably a more important factor than low rates of interest taken in isolation."

The following quotation of the General Theory emphasizes this idea:

> “I expect to see the State, which is in a position to calculate the marginal efficiency of capital-goods on long views (…) taking an ever greater responsibility for directly organizing investment” (Keynes, 1964: 164).

As for exchange rate policy, throughout his work, Keynes’ exchange rate policy thinking and proposals point towards arranging a managed exchange rate regime in order to assure external balance and, particularly, price stability (Ferrari Filho, 2006: Chapter 3). In his *International Clearing Union* (Keynes, 1980a), Keynes makes this idea clear by signaling that one of the aims of having a fixed exchange rate that is nonetheless alterable to suit circumstances should be to reduce uncertainties about future prices of assets and tradable goods when economic agents take decisions to close exchange contracts.

Moreover, Keynes was concerned about pointing out that the external dynamics of monetary economies could not do without an instrument to permit balanced symmetries in trade relations between countries. In that connection, Keynes proposed the creation of a multilateral coordinating body that would work to ensure that trade imbalances were cleared automatically, so that deficit countries would not be hostage to the need to attract capital in order to finance their balances of payments.

Keynes regards a managed exchange rate, automatic clearance of trade imbalances and permission for capital controls as fulfilling two fundamental purposes: (i) they make entrepreneurial expectations less uncertain and (ii) they afford greater freedom to pursue monetary policy, both by hindering exchange rate pass-through effects on domestic prices, as well as by making it possible for the interest rate not to be used the whole time to attract external speculative capital, which can inhibit productive investments. In short, exchange rate policy in Keynes is designed to establish, in the long run, balanced external accounts and the greatest possible autonomy for monetary policy.

To sum up, in an uncertain world, where agents risk their power of command over social wealth in order to gain more such power in the future, Keynesian economic policy, in both conception and practice, should be intended to maintain levels of effective demand for the purpose of mitigating involuntary unemployment by stabilizing business peoples’ state of confidence. To emphasize this point, Marcuzzo (2005: 2) argues that Keynes’ theory proclaims the whole time what needs to be done in order “to sustain the level of investment, but it should be interpreted more in the sense of ‘stabilizing business confidence’”.

3. The recent performance of Brazilian economy and the Brazilian government’s reaction to the GFC and GR

As is well known, since 1999 the Brazilian macroeconomic policy has been characterized by the NCM framework. During the period of the macroeconomic policy based on NCM framework, Brazil’s GDP performance has been poor: from 1999 to 2012, the average growth rate was around 3.2% per year. Moreover, the inflation rate remained relatively high in relation to other inflation targeting countries: in the same period, the annual inflation rate was 6.7%.[4] Despite these figures, surprisingly, since 2003 Brazil has showed a positive combination of macroeconomic resilience, basically due to fiscal and external 'fundamentals', sustained job creation, income redistribution and poverty reduction.[5]

Box 1 shows the main economic and characteristic policies and results of the last Brazilian governments (Fernando Henrique Cardoso, Lula da Silva and Dilma Rousseff). For a lack of space we focus on the coherence, or lack of it, between macroeconomic and development policies, instead of a detail analysis of each policy.[6] We found that the second term of Fernando Henrique Cardoso government (1999-2002) was broadly coherent, pursing a Washington Consensus (WC) type of strategy. The first Lula da Silva's term (2003-2006) was marked by the continuation, and in some aspects radicalization, of Fernando Henrique Cardoso's government in macroeconomic policies, while in his second term (2007-2010) the economic policies – particularly fiscal policy – underwent a slight change of course. In 2011 and 2012, it is possible recognize that the Dilma Rousseff government has adopted a sequence of heterodox economic policy.

To analyse the impact of the GFC and GR under the Brazilian economy, it is important to mention that at the beginning of the Lula de Silva's second term, despite the fact Brazilian Central Bank (BCB) continued to operate monetary policy in such a way as to meet inflation targets, the Brazilian government adopted some structural initiatives – as the expansion of the social protection and income transfer programs, the real increase in the minimum wage and the expansion of public investment, specifically the implementation of the *Programa de Aceleração do Crescimento* (PAC)[7] – that contributed to prevent a greater drop in economic activity and also facilitate the policy response to the crisis. In addition, on the one hand, in the period 2007-08 the primary budget was around 4.0 per cent of GDP (Table 2) and, on the other hand, Brazil and most other emerging countries benefited from higher commodity prices, basically as a result of a positive external environment created by Chinese economy, which contributed both to their achieving significant current account surpluses and accumulating international reserves; at the end of 2008 they were approximately USD 193.8 (Table 3). In this way, before the GFC, Brazil was much better

---

[4] Author's elaboration based on Table 1.

[5] For instance, on the one hand, in terms of income distribution, the Gini Index dropped from 0.589, in the beginning of the 2000s, to 0.541, at the end of 2011, while the poverty line, considering the same period, was reduced from 26.7% to 12.8%. On the other hand, unemployment rate dropped from 8.3% in 1999 to 5.5% in 2012. For details, see Ministry of Finance (2012a and 2012b) and IBGE (2013).

[6] For details see, among others, Arestis and Saad-Filho (2008) and Bresser-Pereira (2009).

[7] PAC (*Growth Acceleration Program*), launched by the Brazilian government on January 2007, has three main objectives: stimulate private investment; increase government investment in infrastructure; and remove the main obstacles to economic growth (bureaucracy, inadequate norms and regulation). When it was released, the total forecasted infrastructure investment was USD 235.0 billion between 2007 and 2010, among which USD 205.0 billion would be provided by state-owned companies and the private sector, while the rest would come from the federal government. Three areas are prioritized: logistics; energy; and social and urban infrastructure. Actually, however, the annual investments within the PAC were much smaller than the forecast. For more details on PAC, see http://www.brasil.gov.br/pac.

protected than in other moments of external turbulence. In other words, at that time, Brazil had macroeconomic, fiscal and external, 'fundamentals'.

Box 1. Main Economic Policies and Outcomes in Brazil, from 1999 to 2012

Presidency	Policies	Economic Performance
Fernando Henrique Cardoso (1999-2002) **Main characteristic:** Macroeconomic policies following the WC paradigm and NCM framework	**Macroeconomic Policy:** Mainly orthodox (NMC), IMF stabilization plans (1999-2002) and pro-cyclical policies during financial crises. **Development Policy**: WC type of structural reforms, deregulation, capital account liberalization and fiscal responsibility law, among others measures.	**Main outcomes:** Average GDP growth: 2.1% per year; Average Inflation rate (IPCA): 8.8% per year; Average Unemployment rate: 7.7% per year; Average Basic Interest Rate: 19.8% per year; Net Public Debt/GDP (2002): 51.3%; Primary Fiscal Budget/GDP (2002): 3.5%; Accumulated Trade Balance: USD 13.8 billion; Accumulated Current Account: - USD 80.3 billion; Foreign Reserves (2002): USD 37.8 billion.
Lula da Silva (2003-2010) **Main characteristic:** Lack of coherence between macroeconomic and development policies	**Macroeconomic Policy**: Mainly orthodox (NMC) and from 2007 to 2010, after the GFC and GR, pragmatism and countercyclical policies. **Development Policies:** Income distribution (*Bolsa Família*, real increase in minimum wage and job creation), recovery in public investments (PAC and *Minha Casa, Minha Vida – My House, My Life*), proactive external policy and credit expansion, particularly through state owned banks.	**Main outcomes 2003-2010** Average GDP growth: 4.0% per year; Average Inflation rate (IPCA): 5.8% per year; Average Unemployment rate*: 9.5% per year; Average Basic Interest Rate: 14.7% per year; Net Public Debt/GDP (2010): 39.1%; Primary Fiscal Budget/GDP (2010): 2.8%; Accumulated Trade Balance: USD 259.9 billion; Accumulated Current Account: - USD 54.9 billion; Foreign Reserves (2010): USD 288.6 billion.
Dilma Rousseff (2011 and 2012) **Main Characteristics:** In search for coherence between macroeconomic and development policies	**Macroeconomic policy:** Coordination between monetary and fiscal policy, pragmatism within the police framework inherited from Fernando Henrique Cardoso and Lula da Silva's governments, macroprudential measures and capital controls. **Development policy**: More activism, widening and deepening of Lula da Silva's policies and industrial, innovative and trade policies (*Plano Brasil Maior*).	**Main outcomes 2011-2012** Average GDP growth: 1.8% per year; Average Inflation rate (IPCA): 6.2% per year; Average Unemployment rate: 5.7% per year; Average Basic Interest Rate: 10.2% per year; Net Public Debt/GDP (2012): 35.1%; Primary Fiscal Budget/GDP (2012): 2.4%; Accumulated Trade Balance: USD 49.2 billion; Accumulated Current Account: - USD 102.6 billion; Foreign Reserves (2012): USD 373.2 billion.

Notes: (*) In 2003 the unemployment rate methodology was changed.
Source: Author's elaboration based on BCB (2013) and IPEADATA (2013).

Lula da Silva's response to the GFC represented an important shift from previous episodes of crises, where central government pursued pro-cyclical policies, usually within the framework of the International Monetary Fund (IMF) stabilization programs, hoping to stabilise the humours of financial investors. The central government responded to the contagion effect of the systemic crisis with a broad variety of counter-cyclical economic measures. The BCB eased monetary policy by lowering the basic interest rate – Selic rate was lowered by 5 per cent, from 13.75% in January 2009 down to 8.75% in September 2009 (Table 4) – and by increase liquidity in the interbank market, such as the BCB postponed the timetable for implementation of the increase on reserve requirements of leasing companies and created a new liquidity fund to acquire credit portfolios from financial institutions. Moreover, stated owned banks – Banco Nacional de Desenvolvimento Econômico e Social (BNDES), Banco do Brasil (BB) and Caixa Econômica Federal (CEF) – were oriented to irrigate the economy, in a context where private banks (national and foreign) decided to not expand credit facilities to consumers and corporations. Fiscal policy was expansionary, with a combination of tax reductions and spending increasing. It aimed at boosting aggregate demand and mitigating the negative impact of the crisis on the labour market and on the economic activity through three major channels, namely, additional government spending, tax cuts[8] and subsidies.[9] The rise in government spending covered, among other things: (i) an expansion of the PAC; (ii) the start up of a program of government incentives and subsidies for housing construction, called *Minha Casa, Minha Vida* (*My House, My Life*), targeted at low and middle-income households; (iii) budget transfers to municipalities; (iv) extension of unemployment insurance benefits; (v) real increase in minimum wage; and (vi) increased benefits for the *Bolsa Família*.[10]. Beyond the stimulus package, the Brazilian government also adopted others countercyclical macroeconomic policies[11] (monetary, financial and exchange rate), as well as it was implemented labour policies.[12]

---

[8] Among others, (i) the tax on financial operations was cut from 3.0% to 1.5% for direct consumer credit operations and the overdraft credit line, (ii) income tax brackets for physical persons were revised, which favour the middle class families, that is, those who earn up to USD 875 per month, (iii) the tax on manufactured products was temporarily cut and (iv) the Tax on Industrial Products (IPI) was cut for motorcycles, trucks and automobiles.

[9] The government subsidized, especially, the agricultural sector by reducing the cost of loans to this sector.

[10] *Bolsa Família* is a government program that transfer income to poor families with young children. According to the program, each family below a certain income level receive around R$ 70.0 (USD 35.0) per month for each child aged 0 to 6.

[11] On fiscal front, the government extended payment deadlines for various federal taxes, thus easing pressure on corporate cash flows, such as withholding income tax (IR), social security tax (COFINS), tax on industrial products (IPI). Moreover, the creation of a sovereign fund was agreed, with an initial amount of 0.5% of GDP (around USD 5.0 billion). The government intends to use these funds to provide the country with savings to compensate for any future economic fluctuations and finance the internationalization of Brazilian companies. It was announced that USD 2.5 billion will be released for infrastructure investments.

[12] The labour policies were focused on the creation of employment and wealth to young, poor and less skill workers. To deal with this objective several programs were created, such as: fiscal incentives to formalize employment in micro-firms (*Super Simples*) and to young people (*Programa Nacional de Primeiro Emprego*) and fiscal incentives to the training process (*Programa de Aprendizagem Professional*). The main results of those policies were: reduction of unemployment rate, reduction of informality and creation of more than 10.0 million of employment during the Lula da Silva government (IBGE, 2013).

Although late, the Brazilian government's reaction, essentially fiscal and monetary stimulus, to the GFC was successful and, as a consequence, the economic growth, after the recession in 2009, was strong in 2010: GDP increased 7.5% (Table 1). This growth rate was determined, basically, by the expansion of household consumption, manly through the increase of domestic credit (Graph 1), and public spending, current consumption and investment.[13] Regarding the inflation rate for the same period, it was 4.3% in 2009 and 5.9% in 2010.

Concerning public spending, it is important to mention that, immediately after the onset of the GFC and GR, policymakers around the world adopted expansionary fiscal policy as the major economic policy tool for recovering GDP growth and mitigating unemployment rate, especially in a context in which monetary policy proved ineffective.[14]

Going into this direction, according to Pires (2012), the Brazilian economic performance, after the second quarter of 2009, was determined, manly, by fiscal policy. Analyzing the impacts of fiscal stimulus on aggregate demand in Brazil through a Vector Auto-Regressive (VAR) model, during the GFC, he concludes that the fiscal multiplier was greater than one. Besides, he argues that the fiscal multiplier was expansionist because the decreased of Selic did not generate a crowding-out effect of the private sector.

In late 2010 and in 2011, the first year of Dilma Rousseff's term, to avoid inflationary pressures arising from the strong Brazil recovery in 2010, the central government had faced the dilemma to moderate economic growth to face inflationary pressures. In this way, to contain inflationary pressures, the monetary and fiscal policies were reverted to previous conventional line to contain inflationary press. Thus, in 2011, Selic increased from 10.75% in January to 12.0% in September and primary surplus target increased to 3.1%.

At the same time, the volatility in financial markets due to the European crisis, the competitive pressures from Chinese manufactured products in domestic and external markets, the lack of strength in manufacturing sector, the appreciation of domestic currency (Table 4), the major deficiencies in infrastructure and the poor quality of public services and institutions, among other things, have raised doubts about the prospects of Brazilian economy.

However, when the European crisis and GR recession affected Brazilian economy, the BCB introduced several macroprudential measures[15] to maintain its financial sector (banks, capital market,

[13] On the one hand, Table 2 shows that primary fiscal budget was reduced to 2.1% of the GDP in 2009. On the other hand, according to Pires (2012), during the period 2007-2010 the average rate of investment was 2.2% per quarter, while from 1995 to 2006 it was around 0.14% per quarter.

[14] Dutt (2013), for instance, develops a growth model to show the implications of expansionary fiscal policy in the economy.

[15] According to Silva and Harris (2012: 22), the main macroprudential measures introduced by the BCB were: "(a) increased bank reserve requirements to dampen the transmission of excessive global liquidity to the domestic credit market; (b) increased capital requirements for specific segments of the credit market (essentially consumer loans) aiming at correcting a deterioration in the quality of loan origination; and (c) new reserve requirements on banks' short spot foreign exchange positions and taxation of specific inflows to correct imbalances in the foreign exchange market and to dampen the intensity and volatility of capital flows." In this way, these measures were relevant to reduce systemic financial risk due to the growth of international liquidity and capital inflows.

insurance and private plans, among others) regulation and supervision to deal with the international financial markets instability, particularly the potential disruptive effects of an excessive absorption of capital flows/liquidity caused by the 'quantitative easing' in 2010-11, and also decided to reduce Selic from 12.0%, in October 2011, to 7.25%, in December 2012; thus, it was lowered by 4.75 per cent. In addition to the BCB measures, a fiscal stimulus package included government spending, tax cuts and subsidies. Moreover, in order to face the development challenge, Dilma Rousseff launched her own programs, which apparently were set to deepen Lula da Silva's previous efforts, such as PAC phase 2[16] (with planned investments close to USD 500.0 billion within the 2011-2014 period) and the *Plano Brasil Maior*, the new industrial policy.

At that time, however, the economic measures failed to boost the economic activity and, as a result, the Brazilian economy experienced a low growth process: in 2011 and 2012 the GDP increased 2.7% and 0.9%, respectively. In turn, the macroprudential measures adopted by the BCB were important to stabilize the exchange rate and private credit operations.[17]

At this point, a question arises: Why economic policies that look like being the same in 2011-12 as they were in 2008-09 had no positive impact so far on the performance of the Brazilian economy? We can highlight, among others, the following:

- It is reasonable to argue that one main feature of the period 2007-2012 is the lack of coherence between macroeconomic and development policies, because it became more ambitious and heterodox in nature, while the period 1999-2006 was mainly rotted in an orthodox framework. In order words, the Brazilian economic policy is still based on monetary regime dominance (it means, inflation targeting regime). This explains why in 2010 and 2011 the BCB increased Selic to avoid inflationary pressures, the government decided to increase primary surplus target and the Brazilian currency, *real*, continued its appreciation process;
- Going in the same direction, considering the Pires' (2012) idea, in 2011-12 the fiscal multiplier was less than one because there was a reaction of the BCB, in terms of tight monetary policy, to keep inflation under control;
- While credit and household consumption were essential to recovery the Brazilian economy in 2009-10, in 2011-12 default rate (Graph 2) increased (both for consumers and for corporations) and the

[16] The PAC 2 will invest R$ 1.0 trillion (around USD 500.0 billion) within 2011-2014 in infrastructure projects, where nearly 50.0% of the total will be directed to the energy sector and 30.0% housing (*Minha Casa, Minha Vida*). In 2011, the amounts committed to PAC reached R$ 35.4 billion (approximately USD 17.0 billion), which represents a 20% increase when compared to 2010, and a 121.3% expansion between 2007 and 2011. In 2012 it is expected to reach R$ 42.6 billion (around USD 21 billion) (Ministry of Finance, 2012a).

[17] It is important to mention that, during the 2007-08 crisis, there was a strong contraction of the liquidity on the interbank market and an overshooting devaluation of the *real* (Table 4) due to the losses from exchange derivatives by many companies (mostly, exporters).

demand-side components, especially household consumption and investment, were not strong enough to sustain a higher pace of economic growth[18] (Graph 3);

- Focusing more closing in the previous point, since 2011 the countercyclical policies, especially, monetary, instead of boosting private investment, have encouraged private debt to support household consumption. According to Graph 3, the investment/GDP ratio dropped from 19.5%, in 2010, to 18.1% in 2012;
- The GR and the Euro crisis, comparing to the GFC, affected, strongly, the Brazilian economy, since the main trade partners of Brazil, United States, Euro zone and China, are in recession or in process of decelerating trend in GDP. Thus, as Table 3 shows, the Brazilian net exports dropped almost 35.0% from 2011 (USD 29.8 billion) to 2012 (USD 19.4 billion);
- In 2010, Brazilian economy grew 7.5% GDP due to, mainly countercyclical economic policies, and also because in the previous year GDP decreased 0.3%. Taking into consideration the second reason, in 2011 and 2012 the GDP performance was poor (Table 1) because GDP in 2010 was very high.

To conclude this section, it must be recognized that the economic policy introduced by Dilma Rousseff government since the early 2011 is different from those adopted during the Lula da Silva government. The new government has tried to coordinate fiscal and monetary policy to increase the pace of interest rate reduction. It has also used State owned banks more aggressively to boost competition in credit markets and, therefore, to reduce interest rates to consumers and corporations. Moreover, the monetary authorities have adopted broader strategic capital controls to avoid the appreciation of the *real*, and the new industrial policy seems to be more ambitious and reliable and it aims at promoting strategic economic sectors and the country’s investment on innovation, research and development.

Nevertheless, it is still not clear if Dilma Rousseff government will be able to deal with the contradictions of pursuing a heterodox strategy without major changes in the underlying macroeconomic policy framework. This is an important task, considering that Brazil still faces major development challenges.

4. Possible economic policies to ensure macroeconomic stability

As section 2 shows, according to Keynes, macroeconomic stability is a combination of full employment and stable price. For developing countries, according to the new developmentalism perspective (Bresser-Pereira, Oreiro and Marconi, 2012) macroeconomic stability also means long-term fiscal and external equilibrium and social development, among others.

[18] Looking at the household consumption figures, in 2010, when the GDP grew by 7.5%, household consumption contributed with 4.2%, in 2011, for a GDP growth around 2.7%, household consumption contribution was 4.2% and, in 2012, until third quarter, household consumption contributed with 1.6% to a GDP growth of 0.9% (Ministry of Finance, 2012b).

In this way, we present a proposal to change the course of economic policies in Brazil, especially because the main results of the Brazilian economy, since the implementation of the NCM framework, show that the chosen policies are not in fact consistent.

On the macroeconomic side, it is necessary to wake up and stimulate the 'animal spirits' of the entrepreneurs, by signalling that economic policies supporting aggregate demand would be pursued, as well as the economic policies must be focused on reversing the macroeconomic constraints, both fiscal and external.

Bearing this in mind, the following measures have to be implemented:

(i) In terms of fiscal policy, first, it should not sacrifice all other objectives simply to guarantee the service of public debt at any cost. For instance, Carvalho and Ferrari-Filho (2007: 63) present some alternatives "to reduce the burden of debt on fiscal expenditures, ranging from the more market-friendly use of options to reduce interest rates, to more aggressive initiatives of debt restructuring". Second, fiscal policy must be operated to implement social programs and to promote public investments, especially, to rebuild infrastructure needed to boost production. Accordingly, public-private partnerships must be encouraged. Third, government should adopt fiscal responsibility, instead of fiscal austerity – it means public spending reductions in response to almost every difficulty. In other words, countercyclical fiscal policy: in times of crisis and recession, fiscal policy has to be expansionist, while in times of prosperity it has to be contractionist to balance the public budget;

(ii) Monetary policy should be oriented, mainly, by employment and should be operated discretionarily. It does not mean that BCB should neglect inflation pressures. The idea is to increase the autonomy of the BCB to set nominal interest rates according to domestic objectives, basically to promote a robust and sustainable growth. It should be noted that, in our view, the Brazilian inflation has the following components: supply bottlenecks, inertial behaviour and exchange rate pass-through.[19] Thus, if inflation has these components, it does not make sense to increase interest rate to contract demand and, as a result, to control inflation. Moreover, macroprudential measures to mitigate the risk of the financial system and the action of the federal public bank, especially BNDES, are fundamental to expand the credit and to play a countercyclical role in a context of tightening credit conditions by private banks. To sum up, the objectives of the BCB have to include high and sustainable levels of employment and economic growth, financial stability and, last but not least, price stability;

(iii) As is well known, due to the excessive capital inflow and high interest rate to keep inflation under control, the exchange rate tends to be cyclically overvalued. To avoid this process, the BCB should manage the exchange rate every time speculators want to manipulate the market. In other words, the exchange rate

[19] It is important to mention that some heterodox economists, such as Setterfield (2006), believe that inflation targeting is compatible with Post Keynesian economics, while others, such as Oreiro and Rocha (2011) suggest that some flexibility could be introduced in the inflation-targeting regime (for instance, the use of a core inflation index of the headline consumer index).

regime must be similar to a managing floating exchange system, which would aim, at the same time, to preserve some flexibility/volatility in the short-term nominal exchange rate and to reach a stable and competitive effective real exchange rate (ERER). Going into this direction, Bresser-Pereira (2012: 6) suggests a competitive exchange rate in which, on the one hand, the market would tend to lead the exchange rate to balance, intertemporarily, the current account, and, on the other hand, the monetary authorities would act to determine the 'industrial equilibrium exchange rate', that is, "the exchange rate that allows tradable industries to be competitive utilizing state-of-the-art technology". To ensure the stability of the ERER, Ferrari Filho and Paula (2012) propose the creation of an *Exchange Stabilization Fund*. The idea is similar to the Federal Reserve Bank: the Brazilian National Treasury would buy and sell foreign currency to promote exchange rate stability and counter disorderly conditions in the foreign exchange market. In addition, capital controls should be used in order to increase the autonomy of the BCB to set nominal interest rate according to domestic objectives, to avoid the appreciation of the *real* and to prevent financial and exchange crises.

In terms of structural measures, to expand the supply capacity and potential GDP, the government should, among others: (i) implement a progressive income tax reform; (ii) continue increasing the real minimum wage and social program, such as *Bolsa Família*, with the objective to improve the standard of living of poor people; (iii) adopt income policies to regulate wages and prices; (iv) enlarge the industrial policy program (*Plano Brasil Maior*) to coordinate private and public efforts to insert the Brazilian economy in the international scenario in a context where Brazil can incorporate the structural and technological changes occurring in the world and attract foreign direct investment that would expand the size of domestic market and add aggregate value to exports; (v) implement trade agreements with other emerging countries, such as Latin American, Asian and BRICs countries; and (vi) invest on innovation, research and development and education essential for the productive sectors have productivity gains.

In conclusion, on the one hand, during the neoliberal era, from the 1990s to 2007, macroeconomic and development policies were coherent in the sense that they followed the WC and NCM. On the other hand, despite the fact that, due to GFC and GR, Brazilian economic policies have experienced a period of transition, where some economic policies implemented to overcome previous neoliberal period seem remember Keynesian economic policies, we are not convinced that they really were and, for this reason, we believe that the challenge of the Dilma Rousseff government is to keep Keynesian and structuralism economic policies, not only in response to internal and external crises, but, mainly, in normal times. Thus, we support the idea that Brazil needs coherence and strength in its Keynesian economic policies, eventually extended by other heterodox traditions[20], to promote stability and growth. In other words, the Brazilian economic policy should be focused on *economic growth targeting* (EGT) to ensure full employment.

[20] See, for instance, in a Post-Keynesian perspective, Davidson (2009) and Minsky (1986), and, in a Latin American view, Ocampo and Ros (2011).

5. Conclusion

Since 1999, Brazil has adopted macroeconomic policies characterized by their coherent and convergence to the NCM framework. During this period, instead of having sustainable economic growth and stability, in which the supply-side determines the level of economic activity and which corresponds to non-accelerating inflation rate of unemployment, the country has experienced semi-stagnation and macroeconomic instability. However, after 2007 a positive combination of growth acceleration, macroeconomic resilience, income redistribution and poverty reduction created a new socio-economic environment: Lula da Silva second term (2007-2010) and Dilma Rousseff (2011 until now) government introduced, mainly in response to the GFC and GR, some economic policies and structural measures that seem to be Keynesian and heterodox policies.

However, in the light of the Keynesian analysis, their governments faced huge contradictions. On the one hand, macroeconomic policy is still based on monetary regime dominance (i.e. an inflation-targeting regime) and the countercyclical economic policies have been pragmatically managed due to the GFC and GR. On the other hand, the leftist governments (Lula da Silva and Dilma Rousseff) did not seem to have any project for the country, especially because, to ensure governance, several parties of very different ideological lines are part of the Government[21].

In this context, we proposed some economic policies to ensure macroeconomic stability. Following Keynesian theoretical analysis, the proposal, to face the task of revert previous flaws of the policy framework inherited of the neoliberal period, WC and NCM, aims at: (i) using fiscal policy to stimulate income growth and distribution, which means to promote investments in public utilities, to adopt progressive taxation and to implement social programmes to reduce inequality; (ii) reducing the deflationary impacts of monetary policy; (iii) managing exchange rate, controlling capital flows and regulating financial sector in order to limit currency overvaluation pressures and boom and bust credit cycles; and (iv) implementing structural measures, such as industrial, innovation and educational policies to improve competitive capabilities of the manufacturing sector, and encouraging public-private partnerships. To sum up, from the Keynesian perspective of macroeconomic stability, the Brazilian economic policy should be coordinated according to the EGT.

We hope that Dilma Rousseff administration and other governments pursue this direction.

References

ARESTIS, P.; SAAD-FILHO, A. (Eds.). *Political Economy of Brazil*: *recent economic performance*. Basingstoke, Palgrave Macmillan, 2008.

---

[21] For instance, Carvalho (2007) presents a critical analysis of the policy strategy and political dimension of the Lula da Silva first administration.

ARESTIS, P.; SOBREIRA, R.; OREIRO, J. L. (Eds.). *The Financial Crisis – Origins and Implications*. Basingstoke, Palgrave MacMillan, 2011.

BRAZILIAN CENTRAL BANK (BCB). *Séries Temporais*. http://www.bcb.gov.br, accessed on 21/01/2013.

BRESSER-PEREIRA, L. C. *Developing Brazil*: *Overcoming the Failure of the Washington Consensus*. Boulder, Lynne Rienner Publishers, 2009.

BRESSER-PEREIRA, L.C. *The New Developmentalism as a Weberian Ideal Type*. Paper in honor of Robert Frenkel, September 2012. http://www.bresserpereira.org.br, accessed on 21/01/2013.

BRESSER-PEREIRA, L.C.; OREIRO, J.L.; MARCONI, N. *A Theoretical Framework for a Structuralist Development Macroeconomics*. Paper presented at the 9th International Conference Developments in Economic Theory and Policy to be held at the Universidad del País Vasco and University of Cambridge, Bilbao/Spain, June 28-29, 2012.

CARVALHO, F.J.C. Políticas econômicas para economias monetárias. *In*: Lima, G.T.; Sicsú, J.; Paula, L.F. *Macroeconomia Moderna: Keynes e a economia contemporânea*. Rio de Janeiro, Campus, pp.258-283, 1999.

CARVALHO, F.J.C. Lula's government in Brazil: a new left or the old populism? *In*: Arestis, P.; Saad-Filho, A. (eds.). *Political Economy of Brazil: recent economic performance*. Basingstoke, Palgrave Macmillan, pp.55-72, 2007.

CARVALHO, F.J.C; FERRARI-FILHO, F. The twilight of Lula da Silva's government: another failed experiment with left wing administrations? *In*: Arestis, P.; Saad-Filho, A. (eds.). *Political Economy of Brazil: recent economic performance*. Basingstoke, Palgrave Macmillan, pp.24-41, 2007.

CONCEIÇÃO, O.A.C.; FERRARI-FILHO, F. The concept of uncertainty in Post Keynesian theory and in Institutional Economics. Ferrari Fº, F. *et al*. *Journal of Economic Issues*, vol.XXXIX, nº3, pp.579-594, September 2005.

CUNHA, A.M.; FERRARI-FILHO, F.; PRATES, D.M. Brazil responses to the international financial crisis: a successful example of Keynesian policies? *Panoeconomicus*, vol.58, nº5, special issue, pp. 693-714, 2011.

DAVIDSON, P. *The Keynes Solution: the path to global economic prosperity*. London, Palgrave Macmillan, 2009.

DUTT, A.K. Government spending, aggregate demand , and economic growth. *Review of Keynesian Economics*, vol.1, nº1, Spring 2013, pp.105-119.

FERRARI FILHO, F. *Política Comercial, Taxa de Câmbio e Moeda Internacional: uma análise a partir de Keynes*. Porto Alegre, UFRGS Editora, 2006.

FERRARI FILHO, F.; PAULA, L.F. Avaliação do regime cambial brasileiro pós-1999: análise crítica e prospective. *In*: Oreiro, J.L.; Paula, L.F.; Basilio, F. (orgs.). *Macroeconomia do Desenvolvimento:*

ensaios sobre restrição externa, financiamento e política macroeconômica. Recife, Editora da UFPE, pp.317-354, 2012.

GRIFFITH-JONES; OCAMPO, J. A.; STIGLITZ, J. E. *Time for a visible hand: lessons from the 2008 World Financial Crisis*. New York, Oxford University Press, 2010.

INSTITUTO BRASILEIRO DE GEOGRAFIA E ESTATÍSTICA (IBGE). *Indicadores Conjunturais*. http://www.ibge.gov.br, accessed on 21/01/2013.

INTERNATIONAL MONETARY FUND (IMF). *World Economic Outlook*. Washington, D.C., 2012. http://www.imf.org, accessed on 21/01/2013.

IPEADATA. *Séries Históricas*. http://www.ipeadata.gov.br, accessed on 21/01/2013.

KEYNES, J. M. *The General Theory of Employment, Interest and Money*. New York, HBJ Book, 1964.

KEYNES, J.M. *Essays in Persuasion*. London, Macmillan, 1972.

KEYNES, J.M. *Activities 1940-1944: Shaping the post-War World, the Clearing Union*. London, Macmillan, 1980a.

KEYNES, J.K. *Activities 1940-1946: Shaping the post-War World, Employment and Commodities*. London, Macmillan, 1980b.

KREGEL, J. Budget deficits, stabilization policy and liquidity preference: Keynes' post-War policy proposals. *In*: VICARELLI, F. (ed.). *Keynes' Relevance Today*, London, Macmillan, pp.28-50, 1985.

MARCUZZO, M.C. *Keynes and the Welfare State*. Roma, Unisversità di Roma, 2005. http://www2u.biglobe.ne.jp/olympa?Cambridge/hyoushi/marcuzzo.doc, accessed on 21/01/2013.

MINISTRY OF FINANCE. *Brazilian Economic Outlook, nº 15, April 2012*. http://www.fazenda.gov.br, 2012a, accessed on 21/01/2013.

MINISTRY OF FINANCE. *Brazilian Economic Outlook, nº 17, December 2012*. http://www.fazenda.gov.br, 2012b, accessed on 21/01/2013.

MINSKY, H. *Stabilizing an Unstable Economy*. New Heaven, Twentieth Century Fund Report, 1986.

OCAMPO, J.A.; ROS, J. (eds.). *The Oxford Handbook of Latin America Economics*. Oxford, Oxford University Press, 2011.

OREIRO, J.L.; ROCHA, M.A. Inflation targeting regimes, institutional flexibility and growth performance: A Keynesian/Kaldorian perspective in a dynamic panel analysis. *Análise Econômica*, vol.29, nº55, pp. 61-93, março 2011.

PIRES, M.C. Controvérsias recentes sobre multiplicadores fiscais. *In*: Banco Interamericano de Desenvolvimento (BID). *Multiplicadores Fiscais no Brasil*, Brasília, BID, 9-27, dezembro 2012.

PROGRAMA DE ACELERAÇÃO DO CRESCIMENTO (PAC). http://www.brasil.gov.br/pac, accessed on 21/01/2013.

SETTERFIELD, M. Is inflation targeting compatible with Post Keynesian economics? Journal of Post Keynesian Economics, vol.28, nº4, pp.653-671, Summer 2006.

SILVA, L.A.P.; HARRIS, R.E. Sailing through the global financial storm: Brazil's recent experience with monetary and macroprudential policies to lean against the financial cycle and deal with systemic risk. *Working Paper Series # 290*, Brasília, Brazilian Central Bank, August 2012.

SKIDELSKY, R. *Keynes: the return of the master*. New York, Public Affairs, 2009.

TERRA, F.H.B.; FERRARI-FILHO, F. Keynes' interventionist-reformist economic policies. *Investigación Económica*, México, vol.LXXI, nº281, pp.17-41, Julio-Septiembre/2012.

Annex

Table 1. Annual GDP growth and Inflation Rates, Brazil, 1999-2012

Year	GDP growth (%)	Inflation Rates (%)
1999	0.2	8.9
2000	4.3	5.97
2001	1.3	7.67
2002	2.7	12.5
2003	1.1	9.3
2004	5.7	7.6
2005	3.2	5.69
2006	4.0	3.14
2007	6.1	4.46
2008	5.2	5.9
2009	- 0.3	4.31
2010	7.5	5.91
2011	2.7	6.5
2012	0.9	5.84

Source: BCB (2013).

Table 2. Net Public Debt/GDP and Primary Fiscal Budget/GDP, end of period, Brazil, 1999-2012

Year	Net Public Debt/GDP (%)	Primary Fiscal Budget/GDP (%)
1999	44.5	2.9
2000	45.5	3.2
2001	49.9	3.3
2002	51.3	3.5
2003	53.5	3.9
2004	48.2	4.2
2005	48.0	4.3
2006	45.9	3.8
2007	43.9	3.9
2008	38.8	4.1
2009	43.0	2.1
2010	39.1	2.8
2011	36.5	3.1
2012	35.1	2.4

Source: BCB (2013).

Table 3. Trade Balance, Current Account and Foreign Reserves, USD Billion, Brazil, 1999-2012

Year	Trade Balance	Current Account	Foreign Reserves
1999	- 1.2	- 25.3	36.3
2000	- 0.7	- 24.2	33.0
2001	2.6	- 23.2	35.8
2002	13.1	- 7.6	37.8
2003	24.8	4.2	49.3
2004	33.6	11.7	52.9
2005	44.7	14.0	53.8
2006	46.5	13.6	85.8
2007	40.0	1.5	180.3
2008	24.8	- 28.2	193.8
2009	25.3	- 24.3	238.5
2010	20.1	- 47.3	288.6
2011	29.8	- 52.5	352.0
2012	19.4	- 54.2	373.1

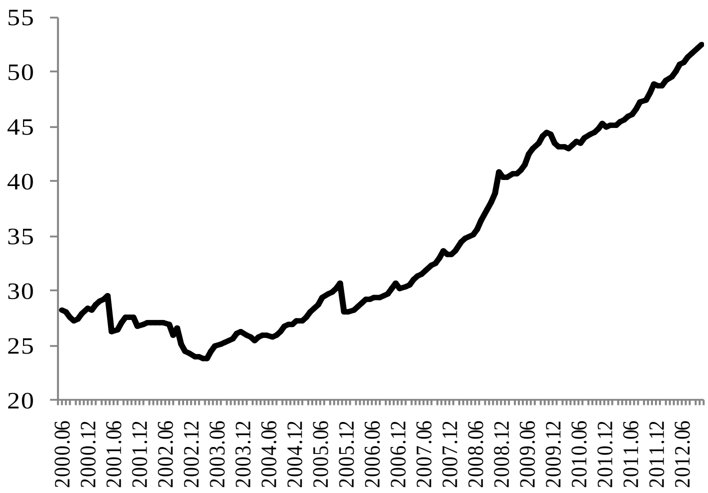
Source: BCB (2013).

Table 4. Nominal Basic Interest Rate (Selic), Nominal Exchange Rate and Real Exchange Rate, end of period, Brazil, 1999-2012

Year	Nominal Basic Interest Rate (%)	Nominal Exchange Rate (R$/US$)	Real Exchange Rate
1999	19.00	1.79	102.8
2000	15.75	1.96	100.5
2001	19.00	2.32	116.7
2002	25.00	3.53	157.4
2003	16.50	2.89	133.2
2004	17.75	2.65	126.7
2005	18.00	2.34	100.7
2006	13.25	2.14	99.3
2007	11.25	1.77	86.7
2008	13.75	2.34	106.9
2009	8.75	1.74	79.4
2010	10.75	1.67	73.7
2011	11.00	1.87	79.3
2012	7.25	2.05	88.7

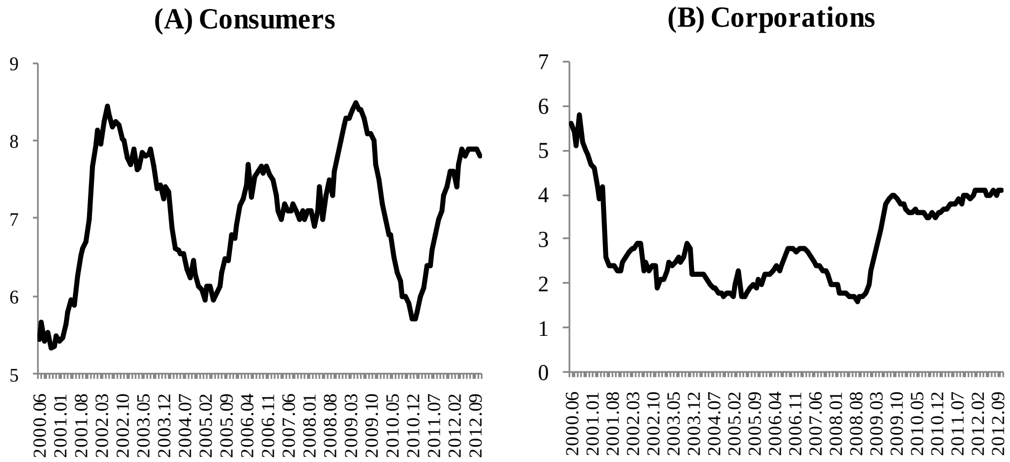
Source: BCB (2013) and IPEADATA (2013).

Graph 1. Credit/GDP ratio, Brazil, 2000-2012 (%)



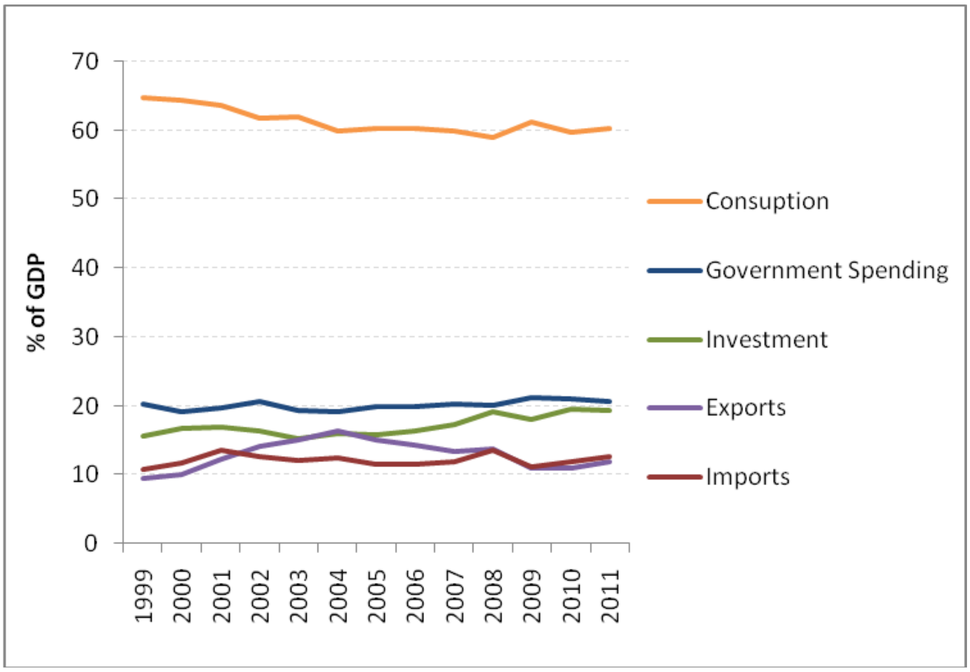
Source: Authors' elaboration based on IPEADATA (2013).

Graph 2. Default ratio, Brazil, 2000-2012 (%)



Source: Authors' elaboration based on IPEADATA (2013).

Graph 3. Components of Aggregate Demand, % of GDP, 1999-2012



Source: IBGE (2013).