

# Keynesian economic policies: reflections on the Brazilian economy, 1995-2009

*Fábio Henrique Bittes Terra and Fernando Ferrari Filho*

## ABSTRACT

As is well known, Keynes proposed deliberate government action, particularly the implementation of economic policies, to coordinate and stabilize the dynamic of monetary economies. In that context, this article aims to retrieve and describe the Keynes' economic-policy prescriptions, specifically monetary, fiscal and exchange-rate policies, and to analyse the Brazilian economy's performance in terms of the operating rationale of Keynesian economic policy in the period 1995-2009. The study's findings show that the economic policies implemented following the Real Plan did not keep the Brazilian economy on a sustained and stable growth path in the face of the endogenous and exogenous economic crises that occurred throughout the period. Moreover, its conclusions question the Keynesian credentials of the countercyclical policies implemented by the Brazilian economic authorities since the 2007-2008 international crisis.

---

## KEYWORDS

Keynesian economics, economic policy, macroeconomics, monetary policy, fiscal policy, exchange rates, Brazil

## JEL CLASSIFICATION

B22, E12, E63

## AUTHORS

Fábio Henrique Bittes Terra is associate professor at the Economics Institute of the Federal University of Uberlândia. [fbtterra@yahoo.com.br](mailto:fbtterra@yahoo.com.br)

Fernando Ferrari Filho is a tenured professor at the Faculty of Economic Sciences of the Federal University of Rio Grande do Sul and a research fellow at the National Scientific and Technological Development Council (CNPq). [ferrari@ufrgs.br](mailto:ferrari@ufrgs.br)

# I

## Introduction

The economic theory set forth by John Maynard Keynes recommends deliberate government intervention in the economy to avert the crises of effective demand that are inherent to the dynamic of monetary economies.

Since the 1970s, several authors have endeavoured to retrieve the economic policy prescriptions contained in Keynes' works, including Davidson (1972 and 1982); Minsky (1982 and 1986); Kregel (1985 and 1994-1995), and Carvalho (1992). In addition to correcting the mistaken interpretation of Keynesian economic-policy proposals, which mainstream thought has inadvertently confused with easy-money policies and budget deficits, the present article emphasizes the relevance of his proposals today.

Against that backdrop, this article first describes Keynes' policy proposals, particularly regarding monetary,

fiscal and exchange-rate policies. It then briefly reviews the economic policies implemented in Brazil since the introduction of the Real Plan in July 1994 and, more specifically, in the period following the international financial crisis of 2007-2008. The aim here is to analyse the Brazilian economy during that period in terms of the operating rationale of Keynesian macroeconomic policy.

The article is organized in four sections, including this introduction. Section II describes monetary, fiscal and exchange-rate policies from the Keynesian perspective. Based on the theoretical framework described, section III establishes whether the macroeconomic policies implemented between 1995 and 2009, including those applied during the international financial crisis, constitute Keynesian economic policies. Section IV concludes.

# II

## The monetary, fiscal and exchange-rate policies proposed by Keynes

In general, the cyclical instability of output and employment levels was always one of Keynes' basic concerns (Ferrari Filho, 2006a), and he believed that the problem of fluctuations ultimately stems from the fact that "a monetary economy [...] is essentially one in which changing views about the future are capable of influencing the quantity of employment..." (Keynes, 1964, p. 4).

Keynes defined capitalist economies as "entrepreneurial economies or monetary production economies". The defining characteristic of a monetary economy is that money serves not only as a means of exchange but as an asset with capacity to provide protection from changes in economic agents' expectations, or "changing views about the future", since it represents an inter-temporal claim on social wealth and possesses maximum liquidity to finance both spot transactions and contracts requiring payments in the future. Depending on how entrepreneurs' liquidity preference (in other words the demand for money) is constrained by their expectations about the future, they will make substitutions between different forms of wealth holding, either increasing or decreasing the demand for reproducible assets and, thus,

increasing or decreasing the income generated by new production (Carvalho, 1994, p. 47).

With the aim of restraining such "changing views about the future" held by those capable of controlling economic activity, namely entrepreneurs, Keynes set forth a new social philosophy to resolve "the outstanding faults of the economic society in which we live [...] [in other words,] its failure to provide for full employment and its arbitrary and inequitable distribution of wealth and incomes" (Keynes, 1964, p. 372). In that regard, while describing the implications of his theory as "moderately conservative", Keynes claimed that:

*"The state will have to exercise a guiding influence on the propensity to consume partly through its scheme of taxation, partly by fixing the rate of interest, and partly, perhaps, in other ways. [...] I conceive, therefore, that a somewhat comprehensive socialization of investment will prove the only means of securing an approximation of full employment; though this need not exclude all manner of compromises and of devices by which public authority will co-operate with private initiative"* (Keynes, 1964, p. 378).

The guiding influence needed from the State, as proposed by Keynes, was expressed through what ultimately defines the economic goal of any social system: politics. Keynes (cited in Minsky, 1986, p. 8) defines the political problem as follows:

*“The political problem of mankind is to combine three things: economic efficiency, social justice and individual liberty. The first needs criticism, precaution and technical knowledge; the second, an unselfish and enthusiastic spirit which loves the ordinary man; the third, tolerance, breadth, appreciation of the excellencies of variety and independence, which prefers to give unhindered opportunities to the exceptional and to the aspiring”.*

Carvalho (2008) argues that Keynesian economic policy is characterized by a principle not of allocation, but of mobilization. Its objective is first and foremost to mobilize resources that are not expanding effective demand and are therefore disappointing the expectations of entrepreneurs — agents who are responsible for creating employment and wealth in society.

According to Keynes, the policy of mobilizing resources to generate effective demand involves nothing more than the set of conventional macroeconomic policies — monetary and fiscal and, in an open economy context, exchange-rate policies— since microeconomic policies can give rise to distortions, privileges and inefficiencies. Acting in the more generalized domain of macroeconomics would allow the widest possible scope for private initiative, thereby avoiding the concentration of opportunities and incomes. It would also be possible to socialize the risks of frustrated expectations, and thus protect workers from large-scale layoffs. Keynes highlights the roles of monetary, fiscal and exchange-rate policies for this purpose.

Monetary policy would be used to align the relative prices of investment assets in the economic system, by managing the interest rate in the economy. Keynes (1964, pp. 225-226) argues that all assets have an intrinsic rate of interest, which is equivalent to their yield. When comparing the various yields on the assets available for choice, economic agents may judge it preferable — in terms of liquidity, carrying cost and quasi-rent— to channel their resources into assets that do not generate an expansion of economic activity—particularly when the productive investments made in the past have resulted in excessive inventories and frustrated expectations.

The basic interest rate set by the monetary authority should be widely publicized and held at a level considered normal, in accordance with the habits and customs of the public, because, as Carvalho (1999, p. 275) points

out, people have expectations as to the normal rate of interest and expect current rates to tend towards this. Accordingly, when the future is unknown, economic agents will always attempt to foresee the rate of interest and monitor it closely to avoid incurring high investment opportunity costs.

Carvalho (1994, pp. 43-44) provides an example of how monetary policy affects the way economic agents manage their portfolio composition. According to the author, *[it is] in this sense that the inverted pyramid that characterizes the Keynesian vision of the relation between money and other financial assets is constructed [...] at the vertex is legal tender, and the other assets are supported on that vertex in successive layers, each one defined by the institutional arrangements that establish rules of convertibility between the groups [...] and by the relation between the yields obtained on each collection of assets.*

The relation between the different assets and money itself means that monetary policy plays an important role in the economic dynamic. Its influence on effective demand is indirect, initially affecting liquidity conditions in the money market, and subsequently motivating economic agents' decisions. Thus, if the government authorities wish to expand the volume of capital in society, they should lower the rate of interest to stimulate productive investments. In addition, keeping the interest rate at levels compatible with eliminating capital scarcity would result in “euthanasia of the rentier”, a class that is not remunerated for its “risk and the exercise of skill and judgment”, but by “exploiting the scarcity value of capital” (Keynes, 1964, pp. 375-376).

Nonetheless, there are times when monetary policy does little to stabilize the dynamic cycles of monetary economies, since its capacity to stimulate effective demand diminishes when uncertainty about the future leads both consumers and investors to hoard money instead of spending it, regardless of the interest rate set by the monetary authority. In that situation, which is common at times of economic crisis, the “liquidity trap” phenomenon operates and money’s store-of-value function is what agents desire. As the interest rate acts indirectly on the economic system and sometimes has only minor effects on agents’ liquidity preference and effective demand, Keynes (1980a) writes:

*“... It’s 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 am interested in the low interest rate as one of the elements furthering this.”* (Keynes, 1980a, p. 350).

In those circumstances, government intervention essentially takes the form of fiscal policy, based on public expenditure management—which is wholly different from the public deficit—and on tax policy.

The primary objective of tax policy is to make it possible to redistribute income that is shared unequally, by taxing either income or inheritance. Second, by expanding the State's spending capacity, tax policy makes it possible to boost aggregate demand in the economic system. Lastly, as Keynes (1972) points out, it can also increase disposable income, by promoting an expansion of effective demand.

In Keynes' original view, public expenditure management involves formulating two budgets: the ordinary (current) budget and the capital budget.<sup>1</sup> The ordinary budget encompasses the resources needed to maintain the basic public services supplied by the government, such as public health, education, urban infrastructure, national defence and social security. Although, as Kregel (1985) notes, Keynes believed in the importance of those current expenditures, particularly social security transfers, as automatic stabilizers of business cycles, the ordinary budget should always be in surplus or, at least, balanced.

As an example of his concern for a balanced budget, in the debates held in the United Kingdom on the social security system to be constructed after World War II, Keynes (1980a, pp. 204-205) argued that the system being envisaged would impose "a severe burden to meet simultaneously pensions against which no funds have been accumulated and to accumulate funds for future pensions".<sup>2</sup>

The need to avoid public deficits in the ordinary budget stems from their repercussions in a monetary economy, including:

- (i) the creation of "dead-weight" debts, for which no funding source has been set up to finance their future payment;
- (ii) pressure on the rate of interest in the economy, caused by the public sector's demand for private savings to finance its deficits;

<sup>1</sup> Keynes' descriptions of budgetary policy can be found in chapter 5 of volume XXVII of the *Collected Writings of John Maynard Keynes*, entitled "Employment Policy". These were debated with various interlocutors in relation to the problems that United Kingdom of Great Britain and Northern Ireland would face after World War II, including the aim of full employment. For more on the subject, see Keynes (1980a, chapter. 5).

<sup>2</sup> The debates were held in the Interdepartmental Committee on Social Insurance and Allied Services of the United Kingdom of Great Britain and Northern Ireland, established in June 1941, and took place mainly between Keynes and commission president William Beveridge. For more on the subject see Keynes (1980a, chapter. 4).

- (iii) the risk that the State would be forced to contract new debt to pay off its previous obligations, depending on the pace of growth and profile of the debt in relation to economic growth and the increase in public revenues.

In that context, Keynes writes, "it is probable that the amount of such surplus would fluctuate from year to year for the usual cases. 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." (Keynes 1980a, p. 278).

The capital budget defines public expenditure in terms of the productive investments made by the government to keep the economic system stable. Such investments should be undertaken by public or semi-public bodies, with the clear aim of regulating the economic cycle.<sup>3</sup>

The capital budget could be in deficit; but the deficit would be financed with the surpluses necessarily obtained in the ordinary budget. Thus, any debt generated by the capital budget deficit would stem not from government borrowing on financial markets, but from productive or semi-productive activities that would gradually replace the dead-weight debt (Keynes, 1980a, p. 277).

It would be unwary to think of public expenditure under true Keynesian fiscal policy as a tool of last resort: it is not. The concept of "automatic stabilizer" is defined in Keynes' own writings, as "a long-term programme of a stable character should be capable of reducing the potential range of fluctuation to much narrower limits" (Keynes, 1980a, p. 322).

Pursuing Keynes' line of argument, the main task of the automatic stabilizer would thus be to prevent wide fluctuations by implementing a stable and continuous programme of long-term investments. In other words, its function would not be to *rescue* the economy from the peaks and troughs of the business cycle, but to *prevent* them from occurring. Moreover, once a long-term productive investment programme had been established, any short-term fluctuations could be more easily managed in the framework of that programme, either by bringing forward future measures in response to the first signs of insufficient effective demand, or by delaying investment projects in the capital budget when there are signs of excess aggregate demand.

<sup>3</sup> According to Keynes (cited in Kregel, 1985, p. 37), semi-public bodies pursue the public good and "approximate more to the status of a public corporations than that of individualistic private enterprise". Examples of such bodies would include "the universities, the Bank of England, the London Port Authority and joint-stock institutions".

Thus, measures to contain short-term fluctuations should not be restricted to promoting expansionary phases, but should also be adopted to head off episodes of excess aggregate demand. As Keynes (1972, p. 377-8) notes:

*“... It follows that the increased quantity of money available to be spent in the pockets of consumers will meet a quantity of goods which is not increased [...] with the result that there is nothing left to buy and the consumer goes home with the money burning his pocket [...] Some means must be found for withdrawing purchasing power from the market; or prices must rise until the available goods are selling at figures which absorb the increased quantity of expenditure — in other words the method of inflation.”*

By promoting productive institutions, the capital budget generates its own surplus through time. To keep public finances in overall balance, it suffices to avoid incurring current deficits, because any short-term imbalances in the capital budget would be financed with surpluses from the ordinary budget, and the returns obtained from the public investments made will tend to balance the capital budget in the long run. As Keynes (1980a, p. 320) put it, the “capital expenditure would, at least partially, if not wholly, pay for itself”.

The possibility of equilibrium in the long-term capital budget makes the public-sector budget as a whole much more rational and viable, by fostering the generation of surpluses through time and thus promoting public saving in both halves of the Keynesian budget. This reduces the possibility of incurring budget deficits which, as Keynes confirms, would occur if the volume of planned investment fails to produce equilibrium. In such conditions, and only then, the “lack of balance would be met by unbalancing one way or the other the current budget.” Nonetheless, “this would be a last resort, only to come into play if the machinery of capital budgeting had broken down” (Keynes, 1980a, p. 352).

To dispel any doubts as to his true intention in prescribing operating modes for fiscal policy, Keynes also argues that one should not confuse the fundamental idea of the capital budget with the particular—and rather desperate—expedient of deficit financing (Keynes, 1980a, pp. 353-354).

The fundamental role assigned to investment spending in terms of the dynamic of aggregate demand in the Keynesian perspective, focuses on three aspects in particular. First, the stock of wealth accumulated in society depends essentially on investment decisions, which mobilize idle resources such as machinery, equipment, and particularly human labour. Second, as

noted by Carvalho (2008), the initial increase in wealth, which results from resources being transferred from one individual to others in the act of investment, can generate a circuit of spending and, consequently, increase income further through the multiplier effect. And, lastly, Keynes (1980a, p. 350) explains why he would prefer a “heavy scale of investment to increasing consumption”, the main reason being that he thought we had yet to even approach the point of capital saturation.

The public investments funded from the capital budget should not rival private-sector investments, but complement them (Carvalho, 1999).<sup>4</sup> The former should function as inducers par excellence of the latter, and thus stabilize the cyclical fluctuations of the economic system. Moreover, as agents’ expectations are the system’s destabilizing factor, fiscal policy in the form of investment expenditure should act on those expectations. To make this absolutely clear, Keynes develops the notion of the capital budget so that the productive investor can rely on the commitment of government action.

In short, in an uncertain world, where economic agents put their potential command over social wealth at risk for the purpose of obtaining greater command in the future, fiscal policy should be robust, to underpin a path of increasing wealth, and thus promote investors’ expectations. In that regard, Minsky (1986, p. 6) argues that “if the market mechanism is to function well, we must arrange to constrain the uncertainty due to business cycles so that the expectations that guide investment can reflect a vision of tranquil progress.”

In the case of exchange-rate policy, Keynes’ proposals envisage the operation of a managed exchange-rate system, to ensure both external balance and price stability. Keynes makes that idea clear in his International Clearing Union proposal for reorganizing the world economic order at the end of World War II. In that proposal, which included a system of exchange rates that were fixed but alterable according to circumstances, he defines one of the objectives as reducing uncertainty about the future prices of assets and tradable goods when economic agents have to make decisions involving foreign-exchange contracts (Ferrari Filho, 2006b, chapter 3).

Keynes also stressed that the external dynamic of monetary economies could not do without tools that would promote symmetrical adjustment in countries’ trading and financial relations. On this point, Keynes

<sup>4</sup> It should also be noted that capital-budget decisions should be related to what, technically speaking, are “social investments”—decisions which, if not taken by the government, will not be taken by anyone else (Kregel, 1985, p. 37).

proposed creating an “international market maker” which would: (i) issue a universally accepted currency; (ii) provide conditions under which trade balances would be automatically adjusted, so that deficit countries would not be forced to attract capital to finance their balance of payments; (iii) define foreign-exchange management rules; and (iv) institute capital-control mechanisms.<sup>5</sup>

Three of the four objectives of the “international market maker” (automatic adjustment of trade imbalances, implementation of a managed exchange rate, and the adoption of capital-control mechanisms) play two fundamental roles for Keynes: (i) they reduce the uncertainty of business expectations; and (ii) they provide greater freedom to implement monetary policy, by obstructing pass-through effects from the exchange rate to domestic prices, and preventing the interest rate being used constantly to attract speculative capital from abroad, which could inhibit productive investments. In

<sup>5</sup> In the words of Keynes (1980b, p. 270) “to provide that money earned by selling goods to one country can be spent on purchasing the products of any other country. [...] we cannot hope to balance our trading account if the surpluses we earn in one country cannot be applied to meet our requirements in another country.”

short, through exchange-rate policy, Keynes aimed to establish inter-temporal equilibrium in external accounts and allow monetary policy the greatest possible autonomy.

As noted by Marcuzzo (2005, p. 2), Keynes’ theory constantly recommends what should be done to underpin the level of investment, in the sense of “stabilizing business confidence”, rather than as a debt-financed public-works plan. This reflects the fact that Keynes’ trust in the “socialization of investments”, rather than in a fiscal policy aimed at smoothing consumption levels over the business cycle, reveals his concern for the size of the deficit and the importance of providing market incentives to achieve the desired level of employment (Marcuzzo, 2005, p. 2).

Lastly, it shows that, in both conception and implementation, Keynesian economic policy aims to maintain levels of effective demand, to mitigate involuntary unemployment by stabilizing business expectations. Ultimately, the outcome pursued with Keynesian economic policies is the construction of a society that enjoys economic efficiency, social justice and individual freedom. Keeping that idea in mind, section III of this article analyses the conduct of macroeconomic policies in Brazil during the period following the Real Plan.

### III

## Review of economic policy in the period 1995-2009 from a Keynesian perspective

#### 1. The rationale of the Real Plan and implementation of monetary, fiscal and exchange-rate policies

As is well-known, the Real Plan was based on the same rationale as the early-1990s economic stabilization programmes implemented in developing, and particularly Latin American, economies: an exchange-rate anchor combined with trade and financial liberalization.

Experience shows that economic stabilization programmes based on that rationale nearly always unfold in the same sequence:

- (i) First, there is a sharp drop in the inflation rate, accompanied by substantial exchange-rate appreciation.
- (ii) When the real exchange rate appreciates, as a result of the difference between domestic and international inflation with the nominal exchange

rate remaining relatively stable, trade balances deteriorate, thereby fuelling balance-of-payments current account deficits.

- (iii) These deficits are financed through foreign-capital inflows, particularly speculative flows and purchases of government bonds.
- (iv) The public debt grows, and the cost of rolling over payment puts pressure on the public deficit.
- (v) The twin deficits, external and fiscal, reveal the inconsistency of “macroeconomic fundamentals” in the eyes of the market; and
- (vi) Currency crises break out.

The Real Plan was no exception to this pattern. Despite its relative success in controlling the inflationary process, import incentives fuelled by trade liberalization and exchange-rate appreciation, together with sluggish export growth, caused the trade balance to deteriorate

rapidly and generated current account deficits. These were financed through inflows of foreign venture capital or, in particular, portfolio investments; and this in turn added to public-sector liabilities.<sup>6</sup>

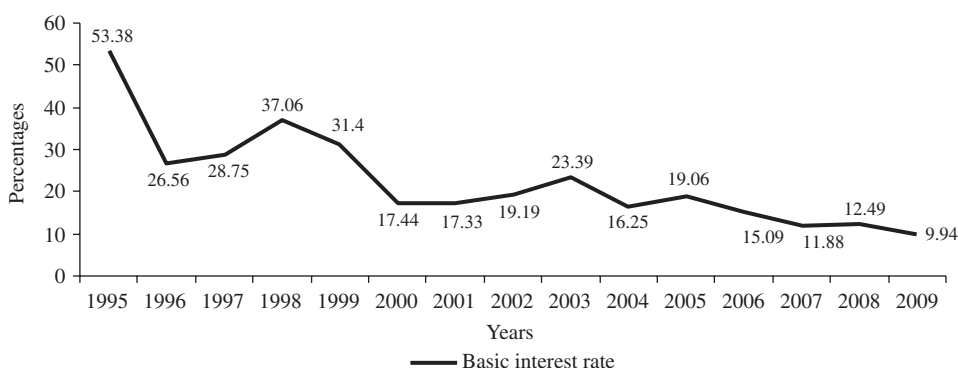
The inter-temporal inconsistency of that strategy fuelled numerous speculative attacks on the real during the second half of the 1990s, nearly all of which stemmed from a combination of “contagion crisis” and evidence of the macroeconomic imbalances in the Brazilian economy, particularly in its external accounts, which further aggravated the country’s external vulnerability and fragility. By early 1999 the strategy for financing the Brazilian economy’s chronic external deficit had become exhausted, and economic agents no longer trusted the country’s economic policy. There was then no alternative but to change the monetary and foreign-exchange regime by replacing the currency band with a flexible-exchange-rate mechanism and implementing a system of inflation targeting. This signalled the end of the monetary-stabilization model in place until then.

Since the application of the Real Plan, monetary policy has played an active role, both directly and indirectly, in stabilizing the inflationary process: between 1994 and 1999, it was used to attract external capital flows and thus bring the country’s overall external accounts into balance (essential for maintaining exchange-rate stability); then, following the adoption of inflation targeting, it was used to lower the inflation rate to the centre of the target range and prevent exchange-rate movements being passed through to domestic prices (Arestis, De Paula and Ferrari Filho, 2009). In brief, throughout the price-stability years, monetary policy was conservative, and this generated high interest rates.<sup>7</sup>

Figure 1 shows the trend of the basic interest rate in the Brazilian economy in the period following the Real Plan, as an illustration of the argument made in the foregoing paragraph. Despite trending downwards throughout the period, basic interest rates remained very high under both monetary regimes — the exchange-rate anchor between July 1994 and January 1999 and inflation targeting since June 1999.

FIGURE 1

**Brazil: basic nominal interest rate, 1995-2009**  
(Annual average, percentages)



Source: prepared by the authors on the basis of Institute of Applied Economic Research (Ipeadata) - Macroeconomic data, 2010 [online] <http://www.ipeadata.gov.br>.

Note: Between January 1995 and March 1999, average annual interest rates were calculated on the basis of the TBan, which was the basic interest rate of the Brazilian economy in force at that time. The other calculations used the Over-SELIC (Special Settlement and Custody System) rate.

<sup>6</sup> Although Brazil’s public deficit was largely financed with external capital, this did not increase its external liabilities. The capital inflow targeted securities denominated in local currency, broadly indexed to the interest-rate and exchange-rate variation. While this strategy reduced Brazil’s external-liability exposure to exchange-rate volatility, it did not help protect the country’s foreign-exchange reserves from speculative foreign capital movements.

<sup>7</sup> The aim of using the interest rate depends on the monetary regime in force at the time. As noted by Arestis, De Paula and Ferrari Filho (2009), in the Brazilian exchange-rate-anchor regime, the interest rate was used to keep the external sector in balance. Under inflation targeting, basic interest rates were the instrument par excellence to attain the targets set by the monetary authority. For further information on the implementation of the different monetary regimes see Arestis, De Paula and Ferrari Filho (2009).

The average basic interest rate in the Brazilian economy between 1995 and 2009 was 22.6% per year. In the exchange-rate-anchor period, between 1985 and January 1999, the rate rose to an annual average of 33.6%, whereas between June 1999 and December 2009, under inflation targeting with a floating exchange rate, the average was 16.4% per year. Figure 1 shows that the interest rate eased steadily downwards from 2006 on, such that between 2006 and 2009 average rates were at their lowest level since the Real Plan. There was also a substantial fall between 2008 and 2009, as a result of the countercyclical monetary policy implemented to protect the Brazilian economy from contagion from the subprime mortgage crisis. In that context, the basic interest rate fell from an annual rate of 13.75% in January 2009 to 8.75% in the following December, the lowest ever recorded in the post-Real Plan period.

As noted above, Keynes (1964) viewed the earning of interest as an investment alternative used by economic agents to increase their wealth; and for that reason monetary-policy interest rates are used to influence agents' spending decisions. On this point, Keynes (1980b, p. 276) argued that one could not hope to control domestic interest rates unless capital outflows from the country were restricted, since the interest rate would need to be used to attract foreign capital to finance the balance of payments. In other words, an interest rate cut could help promote productive investments during recession, whereas in upswings the interest rate could be used to dampen effective demand by economic agents and control inflation.

Between 1995 and 1999, the period of the exchange-rate anchor with broad capital mobility and a current account deficit, the monetary policy interest rate became a hostage to speculative pressure from international investors seeking a "premium" for investing their wealth in Brazil, thereby sustaining the conditions for continued management of the exchange rate. In that period, the need to keep the exchange rate at levels that would prevent potential exchange-rate devaluations from being passed through to domestic prices, and to provide an anchor for economic agents' future price expectations, meant that the domestic interest rate maintained a substantial spread with respect to average international rates.

This spread attracted massive capital flows into the country, and the real exchange rate rose in response. One of the consequences of this for the Brazilian economy was a turnaround in its trade balance, given the need—as noted by Bresser-Pereira and Nakano (2003)—to attract "external saving" to balance the current account. This aggravated external vulnerability, because Brazil's current account deficit was financed largely with speculative

short-term capital. Moreover, given that monetary flows into and out of the country are one of the determinants of the monetary base, government bonds were issued to prevent capital inflows (typically speculative) being converted into reais in the Brazilian economy and threatening the recently-won monetary stability. As those bonds were mostly indexed to the base rate of interest and, from late 1990 onwards, also remunerated by the variation in the exchange rate, the exchange-rate appreciation also had repercussions on public finances via the expansion of financial expenses and public debt.

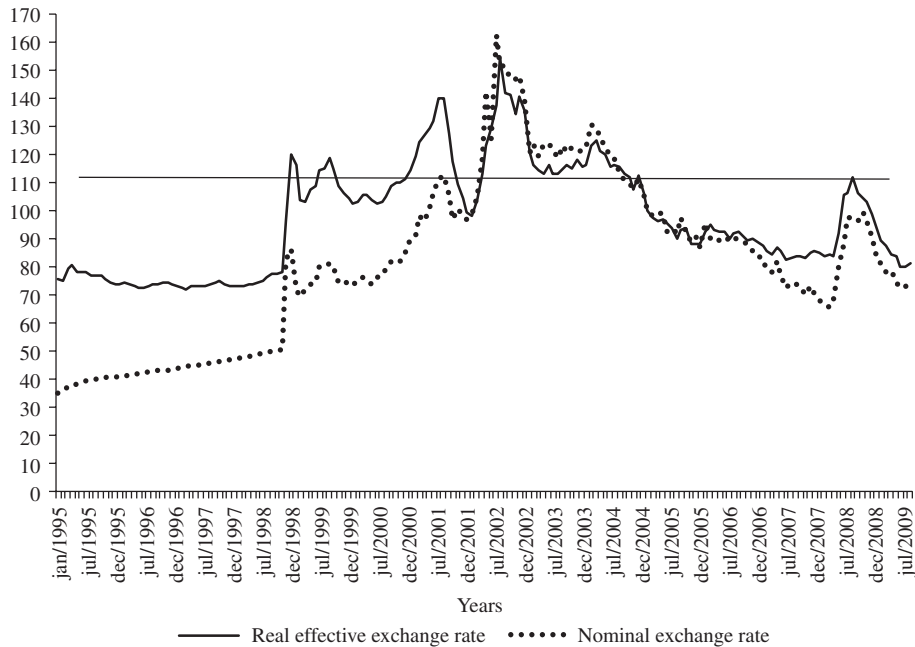
Following the adoption of inflation targeting in July 1999, the logic of the monetary authorities' interest-rate policy changed in form, but not necessarily in substance. In other words, monetary policy ceased to focus exclusively on attracting international capital to increase external saving and thus keeping the balance of payments in balance, but was now also aimed at controlling aggregate demand with a view to keeping the inflation rate within the range previously set by the inflation-targeting regime. On this point, Bresser-Pereira and Nakano (2002) draw attention to the excessive number of variables for which the interest rate became responsible. These include the exchange rate, which required high interest rates both to attract external saving and to appreciate the real, thus averting any chance of pass-through. Corroborating the idea that, under inflation targeting, the interest rate and exchange rate continue to work in harness to keep inflation under control, Modenesi, Modenesi and Martins (2011) apply a Taylor-rule to the Brazilian economy and highlight the importance of the exchange rate for defining the interest rate in Brazil during the inflation-targeting regime. Meanwhile, Terra (2011) stresses the contraction of aggregate demand through the issuance of government bonds, as an important element in defining monetary-policy interest rates.

To implement its tight-money policy, the central bank had to make sure investors ratified the monetary constraint by demanding public bonds which, once purchased, diverted money into financial circulation and thus made it possible to control the monetary base. Thus, monetary policy also had to take account of the behaviour of the exchange rate, which generated a functional overload for the interest-rate and kept it high. As figure 1 shows, the price paid by the central bank to achieve that goal averaged 16.4% per year. Despite the relative trend towards continued appreciation of the real exchange rate illustrated in figure 2, the *modus operandi* of the inflation-targeting regime (high interest rates), together with exchange-rate float and a backdrop of capital- and financial-account liberalization, proved unable to maintain nominal exchange-rate stability (see figure 3).



FIGURE 2

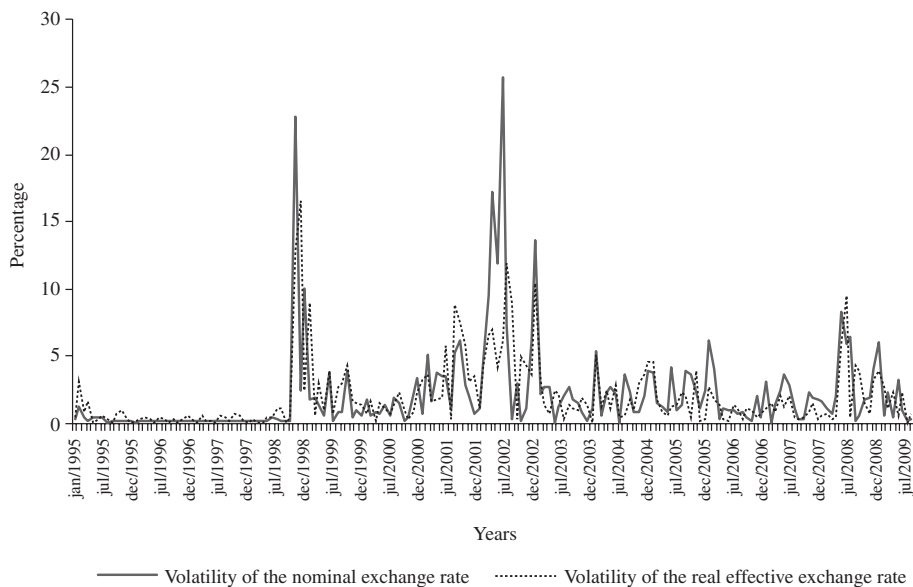
**Brazil: real effective and nominal exchange rate, 1995-2009**  
(Index: May 2005=100)



Source: prepared by the authors on the basis of Institute of Applied Economic Research (Ipeadata) - Macroeconomic data, 2010 [online] <http://www.ipeadata.gov.br>.

FIGURE 3

**Brazil: volatility (standard deviation) of the exchange rate, 1995-2009**  
(Percentages)



Source: prepared by the authors on the basis of Institute of Applied Economic Research (Ipeadata) - Macroeconomic data, 2010 [online] <http://www.ipeadata.gov.br>.

The periods of steepest exchange-rate devaluation in the post-1999 period occurred in that same year, when the exchange-rate regime was altered; in 2002 in the lead-up to the presidential elections, in which expected victory by Luiz Inácio Lula da Silva would likely usher in changes in macroeconomic policy; and in 2008, as a result of the subprime mortgage crisis. Those periods aside, the exchange rate tended to appreciate, such that in late 2009 the nominal rate was very close to the levels prevailing during the exchange-rate-anchor period. Figures 2 and 3 show the trend of the real effective and nominal exchange rates and the volatility of the exchange rate, respectively.

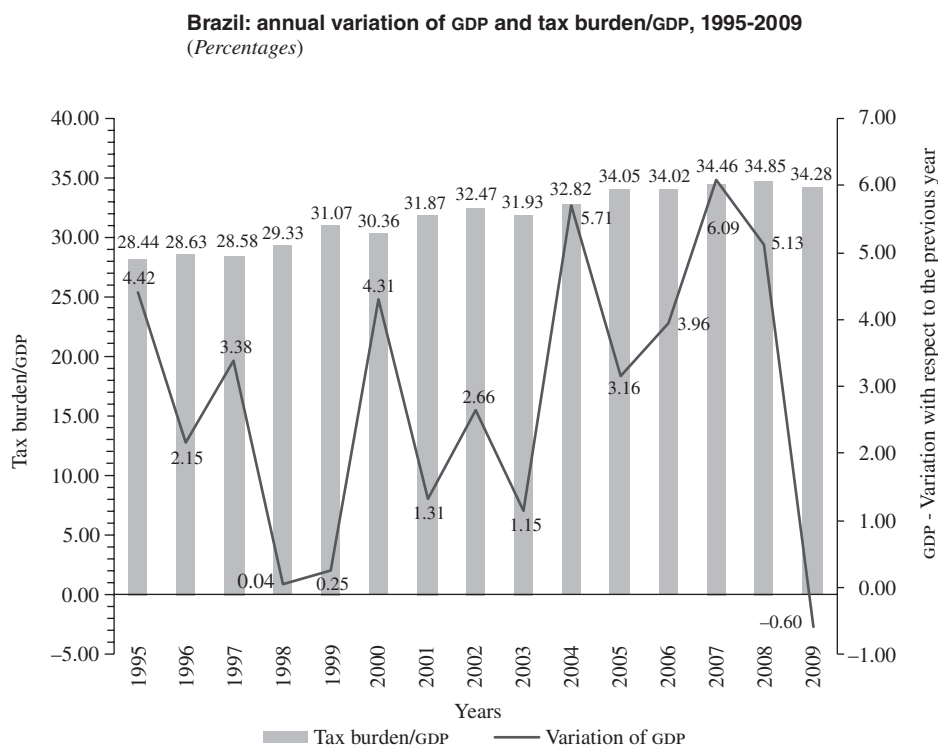
Reliance on external saving to control the balance-of-payments current account was a constant in the post-Real Plan period, except in 2003-2007, when burgeoning agricultural and mineral commodity exports fuelled a current account surplus. The replacement of manufactured exports by agricultural and mineral commodities caused a further exchange-rate appreciation and created a vicious circle in the export process, by

hastening the retreat of manufactured and technology-intensive exports.<sup>8</sup>

The aforementioned modus operandi of the inflation-targeting regime, together with its repercussions on the exchange-rate appreciation and need for external saving, had the effect of fuelling the public debt and compromising the public-sector fiscal outturn. This reflected the high cost of refinancing that debt, for which the parameter is the basic interest rate on government bonds used in monetary-policy open-market operations. Whereas the central bank's activities are financed out of income received by the National Treasury, the cost of monetary policy, noted above, imposes a heavy load on public finances. In such circumstances, the public sector had no alternative but to finance itself by raising the tax burden in relation to gross domestic product (GDP). Figure 4 shows the trend of GDP growth and the relation between the tax burden and GDP, between 1995 and 2009.

<sup>8</sup> Bresser-Pereira (2009) provides a detailed explanation of this phenomenon which is known as "Dutch disease".

FIGURE 4



Source: Prepared by the authors on the basis of Institute of Applied Economic Research (Ipeadata) - Macroeconomic data, 2010 [online] <http://www.ipeadata.gov.br>.

Note: End period figures at base values expressed in 2008 prices.

As shown in figure 4, the annual growth rate of Brazil's GDP was not only low (averaging around 2.9%) but displayed intermittent volatility throughout the period 1995-2009.<sup>9</sup> Moreover, the tax burden rose continuously in relation to GDP in those years, except for minor reductions in 1997, 2000, 2003 and 2009.

According to Keynesian theory, one possible cause of the behaviour of Brazil's GDP could have been that contractionary monetary policy and exchange-rate appreciation discouraged investment, consumption and exports. More specifically, the high borrowing costs affect productive investment decisions, through: (i) the buildup of involuntary stocks as consumption is squeezed; (ii) investor expectations faced by a monetary policy which, by exclusively pursuing price stability, has the effect of restricting aggregate demand; and (iii) the opportunity cost of productive investment and consumption.

The trend towards constant exchange-rate appreciation discourages investments in products with greater technological content and reduces the cost of importing such products from countries with lower production costs, such as Germany, China, the Republic of Korea and India. By making it more profitable to import technology than to produce it domestically, the appreciated exchange rate becomes an obstacle to research and development (R&D) activities in the country by making it harder for Brazilian industry to develop in segments producing high value added goods and services. Consequently, domestic products of high and medium technology become less and less competitive on the international market, rendering the country increasingly reliant on agribusiness exports, which, while important as generators of foreign-exchange earnings, contain little value added.

With respect to public finances in the post-Real Plan period, the negligible average growth rate of GDP and its volatility made it impossible for the government to increase its share in social wealth without raising the tax burden. Yet, if the goal of economic policy, as expressed in Keynesian theory, had been to stimulate wealth creation, the share to be transferred to the State would have grown automatically, without the need to impose a heavier tax burden on society.

Despite the increased tax burden and the accumulation of primary savings virtually throughout 1995-2009 (except for 1997), the Brazilian government required nominal financing throughout the post-Real Plan period. In other

words, the policy of limiting non-financial expenses in the form of public spending and investment (which represent primary expenses in the primary public accounts) was unable to absorb the large financial expenses incurred by the government, and nominal deficits resulted. It is worth noting that the existence of constant primary surpluses means that the stubbornly high level of interest payments cannot be blamed on primary fiscal imbalances. The nominal deficits were therefore due to the financial expenses of the public sector, which, if not caused by fiscal-policy deficits (since there were recurrent primary surpluses) could only have been caused by the policy of issuing government bonds to resolve the monetary-policy problem, as shown in figure 1. Data on the flows of public-sector financing needs in the period 1995-2009 are shown in figure 5.

As shown in the figure, only in 1997 was there a larger primary deficit, while in 1996 and 1998, the fiscal outturn was in balance. In 1995, and from 1999 onwards, pursuant to a requirement of the 1998 agreement for financial assistance to be provided by the International Monetary Fund (IMF), the primary surpluses became substantial and grew still further after the government of Luiz Inácio Lula da Silva took office in 2003. Nonetheless, the nominal deficit and nominal interest payments remained very high throughout the period, and only started to fall back after 2006. In 2009, in response to the international economic crisis, the government increased public spending on income-transfer policies, such as the *Bolsa Família* family support programme, and instituted subsidy mechanisms such as the *Minha casa, minha vida* ("My home, my life") programme. Those policies to increase public spending reduced the primary surplus.

Tax revenues did not fall significantly in 2009 (when they represented 34.28% of GDP compared to 34.85% in 2008), even taking account of the tax exemptions afforded to industrialized products. Gobetti and Orair (2010) explain this by the increase in revenue obtained by the states and municipalities from the Vehicle Ownership Tax (IPVA) and the Urban Property and Land Tax (IPTU).

In that context, the effect on the public accounts of the imbalance caused by financial flows (in view of public expenditure on nominal interest payments in relation to GDP, as shown in figure 5) was a massive increase in the net public sector debt, which surged from 29.0% of GDP in 1995 to 52.1% in 2002 (the highest level of the 1995-2009 period). From then on, Brazil's net public sector debt-to-GDP ratio started to decline, particularly between 2007 and 2008. This was largely due to the higher annual average rate of GDP growth achieved after 2006, and the lower interest rates prevailing from then on. Figure 6 shows the behaviour of the Brazilian public sector's net debt.

<sup>9</sup> As an illustration of that volatility, GDP grew at consecutively increasing rates in just three years, 2005, 2006 and 2007 — 3.2%, 4.0% and 6.1% per year, respectively. In the other years of the 1995-2009 period, GDP growth was negative or occurred at both rising and falling rates.

FIGURE 5

**Brazil: primary and nominal financing needs of the public sector and nominal interest rates, 1995-2009**  
(Percentages of GDP)

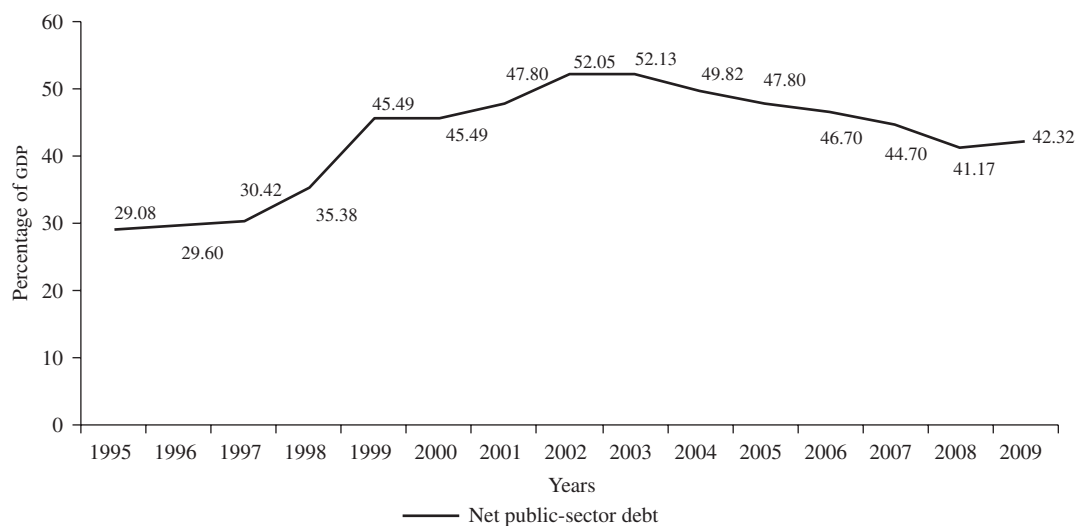


Source: prepared by the authors on the basis of Central Bank of Brazil, "Séries temporais de economia e finanças", 2010 [Economic and financial time series] [online] <http://www.bcb.gov.br>.

Note: End of period values. Negative values represent a surplus and positive values signify a deficit.

FIGURE 6

**Brazil: net public-sector debt, 1995-2009**  
(Percentage of GDP)



Source: prepared by the authors on the basis of Central Bank of Brazil, "Séries temporais de economia e finanças", 2010 [Economic and financial time series] [online] <http://www.bcb.gov.br>.

Note: End of period values.

The peak attained by net public sector debt in 2002 largely reflects the speculative attack that occurred around the time of the presidential elections, which were won by Luiz Inácio Lula da Silva. With free capital movement, the exchange rate depreciated as foreign investments withdrew from the country, and the interest rate rose to curb the turbulence. In September 2002, the nominal exchange rate reached R\$ 3.89 per dollar, its highest level since the Real Plan. To contain capital flight, interest rates were raised and this affected the net public sector debt, which was already inflated by the exchange-rate adjustment. Consequently, the debt level recorded in 2002 lasted into the following year, with significant repercussions on the public sector's financial expenses in interest payments (see figure 5). After 2004—as was the case throughout the 1995-2009 period—the interest rate spread caused by the still high interest rates, at a time of international liquidity, pushed up the exchange rate despite persistent nominal volatility (see figures 2 and 3).

Based on the data presented above and following Keynes' bipartite budgetary format, it can be said that in Brazil there is no notion of a capital budget, but something akin to a "financial budget". Its counterpart, which would be the "ordinary budget", does not offset the expenses of the financial budget. Despite the surpluses recorded constantly throughout most of the period reviewed, cumulative primary saving was unable to keep the public sector's net debt from rising. The deficits incurred by the public sector were characterized by their financial component, which made them difficult to pay in the long term, since no funding sources had been put in place when the debts were contracted. Accordingly, no structural fiscal adjustment was set up in Brazil.

The requirement to generate primary surpluses means financial payments detract from public expenditure of the sort that stimulates aggregate demand (public consumption and investment). On average, between 1995 and 2007, interest paid by the public sector represented 7.8% of GDP per year in real terms; the primary surplus absorbed an annual average of 2.4% of GDP and the public-sector tax burden was 30% of GDP per year. Against that backdrop, nominal interest payments and the primary surplus absorbed 23.3% and 8% of total public revenue, respectively, which means that 31.3% of all public sector income was immobilized and had little or no effect on aggregate demand in the Brazilian economy, depending on how interest payments were distributed. As a result, effective demand was reduced on average by the equivalent of 9% of GDP per year between 1995 and 2007 (BCB, 2010; Ipeadata, 2010).

Lastly, unlike the Keynesian proposal regarding the capital budget deficit—maintenance of entrepreneur confidence—the Brazilian government's (nominal) financial deficits do not help sustain employment rates or enhance social justice in terms of income distribution. The financial deficits originated in interest payments, and those payments remunerated rentiers. To the extent that the primary surplus represents a resource saving to be used to balance the effect of the nominal deficit on public finances, albeit only partially, in reality, the outcome is a transfer of resources from the population at large to government bond-holders, which also makes it impossible to improve the country's income distribution. Keynes viewed inequality in the income distribution as one of the most serious problems of the capitalist system; and improving it was one of the main goals of his social philosophy, as set forth in the *General Theory of Employment, Interest and Money*.

## 2. Were Brazil's countercyclical policies Keynesian?

In response to the international economic crisis that broke out in the United States subprime mortgage market in late 2007, the Brazilian government implemented various measures from the first quarter of 2009 onwards (somewhat tardily it could be said), particularly fiscal and monetary measures. Fiscal policies included rate cuts in personal income tax (IRPF), the financial transactions tax (IOF) or purchases on credit, and the industrialized products tax (IPI) for automobiles, electrical appliances and construction materials; an increase in benefits paid by the *Bolsa Família* programme; institution of the *Minha casa, minha vida* housing programme; and the creation and increase of funding through special and subsidized credit lines for agricultural production, the purchase of construction materials and infrastructure building, among others.

In the case of countercyclical monetary measures, the Central Bank of Brazil (BCB): (i) made its rules on use and collection of compulsory deposits more flexible, to inject liquidity into the domestic money and financial market and to finance loans from the Brazilian Development Bank (BNDES); (ii) streamlined the takeover of financial institutions at risk of insolvency by public banks, particularly Caixa Econômica Federal and Banco do Brasil, and (iii) launched a series of cuts in the basic interest rate from January to July 2009, from 13.75% to 8.75% (BCB, 2010).

As noted by Ferrari Filho (2009), between late 2008 and early 2009 the thesis that Brazilian economy's was in some way immune from the global economic crisis was

refuted, because it began to feel the effects observed in developed countries despite the countercyclical measures implemented. In the wake of the crisis, economic activity slowed sharply, with a 0.6% contraction in GDP in 2009, following 5.1% growth in 2008. In that period, the main indicators of aggregate demand in the Brazilian economy — investment, consumption and exports — fell drastically: the investment rate plummeted by 20.3%, private consumption dropped by 1.1%, and exports slumped by 22.1% in the first half of 2009 (Ferrari Filho, 2009).

Despite the authorities' slow reaction to the crisis, the fiscal and monetary policies implemented to stimulate aggregate demand in the first quarter of 2009 had some effect, particularly in terms of reducing unemployment, which, having surged from 6.8% in December 2008 to 9.0% in March 2009, dropped back to 6.8% in December of that year. Moreover, no major fault lines appeared in the national financial system, as happened in the central countries

Nonetheless, the countercyclical policies implemented cannot be described as strictly Keynesian. Although the outcome, both desired and attained, by the economic authorities through these policies displays a Keynesian stamp (boosting effective demand countercyclically),<sup>10</sup>

<sup>10</sup> It might be noted that the countercyclical measures adopted by Brazil's economic authorities are not, in principle, orthodox.

Keynes visualized a situation of ongoing normality in the economic system which, by preventing cycles, would enable investors to form better expectations about the future and encourage them to forego liquidity. In that sense, Keynesian economic policies prescribe continuous government action to avoid recessionary trends and not, as happened in the case of Brazil, government intervention after a crisis has broken out. Lastly, government action should not be to remedy but to prevent the economic problems inherent to the dynamic of monetary economies. In brief, albeit with extreme delay and using relatively timid measures, such as the modest cut in the basic interest rate, the economic authorities had some success in combating the crisis. If the Keynesian notion of the State applying "permanent automatic stabilizers" to effective demand had been conventionally adopted, the dynamic of the Brazilian economy would clearly have been less cyclical; moreover, the crisis of effective demand suffered by the global and Brazilian economies between 2008 and 2009, would unlikely have been so deep, and it would definitely have been shorter. By recognizing business expectations as both a causal factor of the crisis and, at the same time, the source of the prosperity of the economic system, Keynes proposed automatic-stabilizer policies to lay firm foundations for entrepreneurial action. Laying such foundations should be a constant commitment and not a last resort as happened in Brazil.

## IV Conclusions

One of Keynes' main concerns was to how to promote the greatest possible social wealth and ensure its distribution among the largest number of individuals. The key elements of wealth production are entrepreneurs (and their impulses or "animal spirits"), who are continuously dealing with the inherent uncertainty of the future. To resolve that dilemma, and in keeping with his concern, Keynes proposed government intervention to underpin entrepreneurial expectations.

In Keynes' early writings, government intervention focused on three areas: monetary, fiscal and exchange-rate policy. On the first, he argued that implementing monetary policy through the interest rate should avoid crowding out productive investment, and thereby avert negative effects on the level of investments, which are a source of job creation, wealth and income distribution. According

to Keynes, fiscal policy is the most important sphere of government action and is structured around: (i) tax policy and (ii) the notion of a bipartite budget, divided into an ordinary (current) budget and a capital budget. The purpose of the first is to finance basic government services, and it should always be in surplus. The second aims to strengthen expectations by automatically stabilizing the cycles of monetary economies. This budget could be in deficit, because it is financed in the short run from the surpluses generated in the ordinary budget, and, in the long run, from the returns on investments made as part of its automatic stabilization functions. As can be seen, Keynes viewed budgetary balance as a crucial element in the rationale of fiscal policy. Lastly, the monetary authority should use the exchange rate under a managed floating mechanism, not only to curb speculation, but also

to keep the real effective exchange rate stable through time, which is essential for boosting export activity and preventing exchange-rate fluctuations from being passed through to domestic prices.

When this logic is applied to the conduct of economic policy in Brazil after the Real Plan, it can be seen that both fiscal and exchange-rate policy were subordinated to monetary policy, and the monetary regime predominated throughout. To keep inflation substantially low throughout the 1995-2009 period, monetary policy imposed very high interest rates, which firstly were inconsistent with sustained economic growth and, secondly, imposed a burden on the country's public finances that was incompatible with primary surpluses, thereby generating a surge in net public sector debt.

The high basic interest rates also fuelled exchange-rate appreciation, a trend that has prevailed throughout the post-Real Plan period. In the absence of wide-ranging controls on international capital inflows into the country, the exchange rate was left to the mercy of external speculators' decisions on how and where to invest their savings. Influenced by external motives, such as the crisis unleashed by the subprime mortgage market in the United States, or by endogenous factors (such as the 2002 presidential campaign), economic agents engaged in foreign-exchange transactions that caused the sharp exchange-rate volatility observed throughout the floating-rate period after 1999. The attempt to control that volatility during the managed-exchange-rate period triggered the Brazilian currency crisis of late 1998 and early 1999, when the monetary authority lost control of the domestic interest rate.

The economic policies implemented to combat the international economic crisis of 2007-2008 cannot be classified as Keynesian, either; at most, they involved government presence in the equilibrium of the economic

dynamic, something unimaginable from a conventional theoretical viewpoint. The countercyclical measures had an ex-post assistance profile, since the aim was to rescue the country from the bottom of the pit once the belief that the Brazilian economy was ring-fenced from economic developments elsewhere in the world had been laid to rest. Keynes believed stabilization policy should be permanent, because the entrepreneurial investments responsible for economic prosperity needed to be constant. The term "automatic stabilization" should evoke an economic policy action that keeps the economic system on a normal course without affecting business expectations. As with any volatility in the economy's basic prices —such as the exchange rate, interest-rate, and wages— "stop-go" growth of the type seen in Brazil undermines business confidence. To promote productive investment in a climate of uncertainty, the entrepreneur requires constancy, and that is what Keynes proposed with automatic stabilization. The economic policies used in Brazil to deal with the crisis were last-resort measures, since their objective was not to stabilize business expectations, but to rescue them. It is no coincidence that Brazil's GDP shrank by 0.6% in 2009 compared to the 2008 level.

Lastly, this brief analysis of the economic policy implemented in Brazil in the post-Real Plan period shows that it lacked the credentials of Keynesian economic policies, as described in the second section of this article. Why did the economic policies implemented after the Real Plan diverge from those recommended by Keynes? Here, Minsky (1986, p. 8) aptly notes:

*"... economic policy must reflect an ideological vision; it must be inspired by the ideals of a good society. And it is evident that we are faced with a failure of vision, with a crisis in the aims and objectives that economic policy should serve"* (Minsky, 1986, p. 8).

#### Bibliography

- Arestis, P., L.F. de Paula and F. Ferrari Filho (2009), "A nova política monetária: uma análise do regime de metas de inflação no Brasil", *Economia e sociedade*, vol. 18, No. 1(35), Campinas, Institute of Economics, State University at Campinas.
- BCB (Central Bank of Brazil) (2010), "Séries temporais de economia e finanças" [online] <http://www.bcb.gov.br>.
- \_\_\_\_ (2009), *Manual de estatísticas fiscais publicadas pelo Departamento Econômico do Banco Central do Brasil*, Brasília.
- Bresser-Pereira, L.C. (2009), *Globalização e competição*, Rio de Janeiro, Elsevier-Campus.
- Bresser-Pereira, L.C. and Y. Nakano (2002), "Uma estratégia de desenvolvimento com estabilidade", *Revista de economia política*, vol. 22, No. 3(87), São Paulo, Centro de Economia Política.
- \_\_\_\_ (2003), "Crescimento econômico com poupança externa?", *Revista de economia política*, vol. 23, No. 2(90), São Paulo, Centro de Economia Política.
- Carvalho, F.J.C. de (2008), "Equilíbrio fiscal e política econômica keynesiana", *Análise econômica*, vol. 26, No. 50, Porto Alegre, Federal University of Rio Grande do Sul.
- \_\_\_\_ (1999), "Políticas econômicas para economias monetária", *Macroeconomia moderna: Keynes e a economia contemporânea*, G.T. Lima, J. Sicsú and L.F. Paula (orgs.), Rio de Janeiro, Campus.
- \_\_\_\_ (1994), "Temas de política monetária Keynesiana", *Ensaioes FEE*, vol. 15, No. 1, Porto Alegre, Foundation for Economics and Statistics.

- \_\_\_\_\_ (1992), *Mr. Keynes and the Post Keynesians: Principles of Macroeconomics for a Monetary Production Economy*, Aldershot, Edward Elgar.
- Davidson, P. (1982), *International Money and the Real World*, London, Palgrave Macmillan.
- \_\_\_\_\_ (1972), *Money and the Real World*, London, Macmillan.
- Ferrari Filho, F. (2009), "Como era de se esperar a crise internacional chegou ao Brasil. E agora, o que fazer para mitigarmos os impactos da crise em 2009 e retomarmos o crescimento em 2010?", *Economia & tecnologia*, vol. 5, No. 17, Curitiba, Federal University of Paraná.
- \_\_\_\_\_ (2006a), "A economia de Keynes e as proposições keynesianas de política econômica", *Teoria geral setenta anos depois: ensaios sobre Keynes e teoria pós-keynesiana*, F. Ferrari Filho (org.), Porto Alegre, Federal University of Rio Grande do Sul (UFRGS).
- \_\_\_\_\_ (2006b), *Política comercial, taxa de câmbio e moeda internacional: uma análise a partir de Keynes*, Porto Alegre, Federal University of Rio Grande do Sul (UFRGS).
- Gobetti, S. and R. Orair (2010), "Estimativa da carga tributária de 2002 a 2009", *Nota técnica*, No. 16, Brasília, Institute of Applied Economic Research (IPEA).
- Ipeadata (2010), "Instituto de Pesquisa Econômica Aplicada - Dados de macroeconomia" [online] <http://www.ipeadata.gov.br>.
- Keynes, J.M. (1980a), "Activities 1940–1946: shaping the post-war world: employment and commodities", *The Collected Writings of John Maynard Keynes*, vol. 27, London, Royal Economic Society.
- \_\_\_\_\_ (1980b), "Activities 1940 – 1944: shaping the post-war world: the Clearing Union", *The Collected Writings of John Maynard Keynes*, vol. 25, London, Royal Economic Society.
- \_\_\_\_\_ (1964), *The General Theory of Employment, Interest and Money*, New York, HBJ Book.
- \_\_\_\_\_ (1972), *Essays in Persuasion. The Collected Writings of John Maynard Keynes*, vol. 9, London, Royal Economic Society.
- Kregel, J. (1994-1995) "The viability of economic policy and the priorities of economic policy", *Journal of Post Keynesian Economics*, vol. 17, No. 2, Armonk, M.E. Sharpe Inc.
- \_\_\_\_\_ (1985), "Budget deficits, stabilisation policy and liquidity preference: Keynes's Post-War policy proposals", *Keynes's Relevance Today*, F. Vicarelli (ed.), London, Macmillan.
- Marcuzzo, M.C. (2005), *Keynes and the Welfare State*, Roma, Universidad de Roma, preliminary version [online] <http://www2u.biglobe.ne.jp/~olympa/Cambridge/hyoushi/marcuzzo.doc>.
- Minsky, H. (1986), *Stabilizing an Unstable Economy*, New Heaven, Twentieth Century Fund Report.
- \_\_\_\_\_ (1982), *Can "It" Happen Again? Essays on Instability and Finance*, New York, M.E. Sharpe Inc.
- Modenesi, A.M., R.L. Modenesi and N.M. Martins (2011), "A modified Taylor rule for the Brazilian economy: convention and conservatism in 11 years of inflation targeting (2000-2010)", IV Encontro Internacional da Associação Keynesiana Brasileira, Rio de Janeiro.
- Terra, F.H.B. (2011), "A dívida líquida do setor público no Brasil pós-Real: uma interpretação keynesiana", thesis, Porto Alegre, Federal University of Rio Grande do Sul.