

BRAZIL AND INDIA FACE THE GLOBAL ECONOMIC CRISIS: IMMEDIATE IMPACTS AND RESPONSES FROM ECONOMIC POLICY

André Nassif*

Abstract

This paper compares the impacts of the global economic crisis on the Brazilian and Indian economies, as well as the economic policies that were immediately implemented to reduce the negative effects on credit and economic growth. The article shows that exports and the real domestic product were adversely affected in both countries. However, three reasons explain why India was much less affected than Brazil and why it figures as one of the few countries in the world economy that escaped the recession in 2009: i) due to low external financial integration, the Reserve Bank of India had more room to moderate negative expectations than other Central Banks in emerging countries, including Brazil; ii) the immediate decision of the Reserve Bank of India, even with inflation on the rise, to reduce the basic interest rate as soon as the US financial crisis spread across the global economy, after September 2008; and iii) the implementation of a fiscal package in which government demand was promptly and intensively increased (mostly through investments in infrastructure) to partially offset the drop in private spending and net exports. Conclusively, the article suggests that, without ignoring the importance of monetary and credit stimulus, and given the confidence crisis and a strong preference for liquidity, the main instrument for mitigating the impact of the recession in Brazil in 2009 is the fiscal policy.

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* Professor of Economics at the Fluminense Federal University (UFF) and Economist in the Planning Department at the Brazilian Development Bank (BNDES). E-mail: andrenassif@bndes.gov.br. Paper presented at the International Conference "The World Economy in Crisis: The Return of Keynesianism?", organized by the Hans Böckler Stiftung, Berlin, Germany, October 30-31, 2009. The opinions and suggestions on economic policy are the author's responsibility and do not reflect the Brazilian government's nor the BNDES' position. This work is not only the result of conventional research in primary and secondary sources in the Brazilian and Indian economies, but also the interviews carried out in government, academic and corporate institutions in New Delhi and Mumbai between January 12th and 22nd, 2009. The success of this technical mission supported by the BNDES would not have been possible without the competent assistance of the Brazilian diplomatic body in India. The author is sincerely grateful to the diligent efforts of the diplomatic body of the Brazilian Embassy in New Delhi and the Consulate in Mumbai, especially the Minister Counselor José Carlos da Fonseca, the Counselors Pedro Terra and Eric Sogocio, and the Vice-Consul Jandira Gill Chalu Pacheco. The Executive Director of the India-Brazil Chamber of Commerce, Mr. Subramaniam Ayyar, deserves special acknowledgement for the valuable information on Indian institutions. Marcelo Machado Nascimento, economist in the Economic Research Department of the BNDES, collaborated in preparing and interpreting the data related to Section 3. Edson Oliveira de Macedo contributed for the research assistance. Fábio Giambiagi, Fernando Pimentel Puga and Valéria Delgado Bastos made many suggestions that helped improve this final version. The remaining errors are, as usual, the author's exclusive responsibility.

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1. Introduction

In his classic book, the eminent and ultimately recognized economist Hyman Minsky (1986) had identified several episodes of severe economic recession in the United States whose characteristics had all the traits of becoming a major global depression¹. According to Minsky, in most of these episodes it was only possible to avoid the high risks of a global depression because the immediate actions and coordinated efforts of the Federal Reserve Bank (FED) and the U.S. Treasury - whether by providing adequate liquidity and sharply reducing interest rates or drastically increasing fiscal deficits - managed to dissipate the impact of economic agents' broken expectations and restore adequate levels of effective demand to the economy².

Since September 2008, the harmful effects of the simultaneous reduction in credit, trade and global GDP have turned the current crisis - at first limited to subprime mortgage markets in the United States - into the most serious downturn since the Great Depression of the 1930s. While contemporary economists have powerful theoretical and empirical tools to prevent major depressions - unlike the early 1930s when the state-of-the-art was limited to the liberal treatment recommendations from the pre-Keynesian classic macroeconomic theory - there is no way to predict, quoting another classic Minsky essay (1982), if "it (i.e. the

¹ Among other episodes, Minsky (1986) identified the 1996 credit crunch and a sequence of financial crises, such as those in 1970, 1974-75, 1979-80 and 1982-83 (pp. 4-5).

² To have an idea of the importance of the role of economic policy as an anti-cyclical mechanism, in the 1974-75 crisis in the US, the Treasury, after posting a fiscal surplus of around US\$ 6 billion (0.43% of GDP) in 1973 (the peak of the economic boom in the 1970s), ended 1974 with a fiscal deficit of US\$ 3.6 billion (0.24% of GDP), soaring to a whopping US\$ 63.4 billion (3.87% of GDP) in 1975! See Minsky (1986, p.31).

depression of 1930) could happen again"³. Both Keynes (1936, 1937) and Minsky were aware that depression can only be avoided if policy-makers take immediate measures to provide liquidity, to restore the credit channels (monetary policy) and to boost growth in income and private spending (fiscal policy). However, both authors were fully aware that these tools only begin to produce effective results from the moment such tools are able to recover the future trust of economic agents and dissipate their strong preference for liquidity. That is, although expansionary fiscal and monetary policies are known to be the (only) necessary tools, they are not enough to prevent recessions from turning into depressions. However, as the sufficing condition is outside the scope of economic policy, since it depends on the positive reaction of economic agents to monetary and fiscal stimulus, governments can only aim their artillery – in the case of developing countries – at the economic recession.

This paper compares the impacts of the global economic crisis on Brazilian and Indian economies, as well as the economic policies immediately implemented to restore the regular credit channels and reduce the negative effects on economic growth. There are several reasons to compare Brazil with India, among which we can name at least three: First, both countries shared relatively similar models of economic development between the 1950s and the late 1980s ("Import Substitution") and liberalizing economic reforms were implemented almost at the same time (Brazil since 1990, and India after 1991); second, among the countries that form the so-called BRICs, only Brazil and India share ongoing industrialization processes with typical capitalist characteristics⁴; and third, although the first

³ Throughout the entire time this paper was being written, the general perspective related to the development of the crisis has been one of uncertainty. To have an idea, when I began to research data on both the Brazilian and Indian macroeconomics (at the end of December 2008), the International Monetary Fund's (IMF) projections suggested a mere economic slowdown in 2009 for most countries and global growth of 2.2%. Yet, in April 2009, most of the economic institutions were projecting a strong global crisis, the first since the Second World War. Therefore, we do not intend to make projections on the Brazilian and Indian economies in 2009.

⁴ BRIC is an expression that became famous due to the studies by economists at Goldman Sachs, who estimated that Brazil, Russia, India and China (the countries that make up the acronym) will be able to – if the hypotheses regarding growth actually work – become important players in the global economy in the long run (see Wilson and Purushothaman, 2003). Even if, throughout the process of

financial impacts occurred through similar transmission channels in both countries, the different responses from economic policy ended up producing distinct effects on the real economies.

The paper is divided into 4 sections, including this Introduction. Section 2 examines the evolution of the macroeconomic situation in Brazil and India, from the early 2000s to September 2008. Section 3 compares the responses from economic policies and the immediate impacts from the global crisis on both countries. Section 4 draws the main conclusions of the paper and the perspectives for both economies beyond 2010, assuming that, by then, the global crisis will be over.

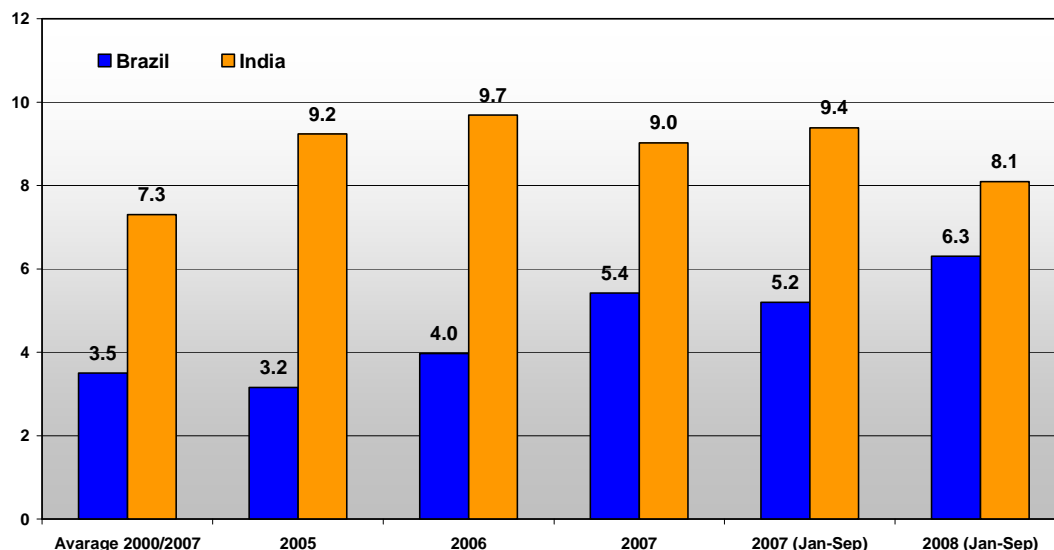
2. The macroeconomic environment in Brazil and India before the global crisis of 2008

Much higher growth rates of India's real GDP are undoubtedly the prominent point that distinguishes its recent economic performance compared to Brazil. As shown in Figure 1, between 2000 and 2007 India managed to maintain very high economic growth rates (average annual change in real GDP of 7.3%). Between 2005 and 2007, India entered a phase of accelerated growth, with average annual rates exceeding 9% increase in real GDP. In contrast, Brazil's relatively lower average annual rates of real GDP growth illustrate how it has been hard for the country to rupture the long-term semi-stagnant growth, which dates back to the early 1980s⁵.

import substitution in India, we take into account that the state intervention models were influenced by the Soviet model, private ownership has never been put into check in the country.

⁵ While the average annual variation of real GDP in Brazil was 2.4% between 1980 and 2000, in India it reached 5.6% (for Brazil, data from the IBGE, and, for India, from the Reserve Bank of India).

Figure 1 - Rates of change in real GDP in Brazil and India (%) 2000-2008



Note: 1 The data for the period 2000/2007 refers to real GDP at market prices; the data for the periods Jan/Sept 2007 and Jan/ Sept of 2008 refer to GDP at factor costs.

2 The data from India for the period 2000/2007 are from respective fiscal years, beginning on April 1 of each year and ending on 31 March the following year. The data referring to the periods of Jan/Sept 2007 and Jan/Sept 2008 refer to the calendar year for both countries.

Source: Central Bank of Brazil and Reserve Bank of India.

In Brazil's case, at the beginning of the first term of the Lula da Silva administration in 2003, the focus on economic growth had to be sacrificed in favor of monetary and exchange rate stabilization and to prevent the deterioration of public accounts. For this reason, it was necessary (and justified) to adopt very conservative fiscal and monetary policies that strongly contributed to the economic slowdown. However, despite the significant improvement in macroeconomic fundamentals, Brazil proved to be slower in sustaining more expressive growth rates.

With respect to fiscal indicators, India showed an average annual nominal deficit of 7.8% in the period 2000-2007. In contrast, due to stronger primary fiscal surpluses throughout the last decade and decreasing basic interest rates between September 2005 and December 2007, the same indicator was much lower in Brazil (4.3% of GDP between 2000 and 2007). The slower fiscal adjustment in India is reflected in the high levels of consolidated gross domestic debt in the public sector,

which reached approximately 80% of GDP in 2005 and, despite dropping in the last three years to the estimated level of 73% in 2008, is one of the elements that characterizes India's internal vulnerability (see Figure 2 below)⁶. Despite the high primary surpluses throughout the last decade in Brazil, the gross domestic public debt has decreased slowly over recent years. Yet, it still remains at quite high levels to ensure fiscal sustainability in the long term.

However, the slowness of the drop in public debt in both countries is explained by different reasons: while in India there is stronger political resistance to very high primary surpluses – the primary deficit was 2.5% of GDP in 2008 (against a primary surplus of 3.7% in Brazil) –, in Brazil, the slower reduction of the gross public debt/GDP ratio is due to the cost of the debt caused by high interest rates and the shorter-term securities⁷. In October 2008, while 47% of the total securities had a 2-year maturity in Brazil, in India, 70% of the total matured in more than 5 years, showing that the Brazilian debt is still heavily concentrated in the short term⁸. To some extent, the longer maturity of public debt has given the Indian monetary authorities room to sustain much lower nominal interest rates than those in Brazil⁹.

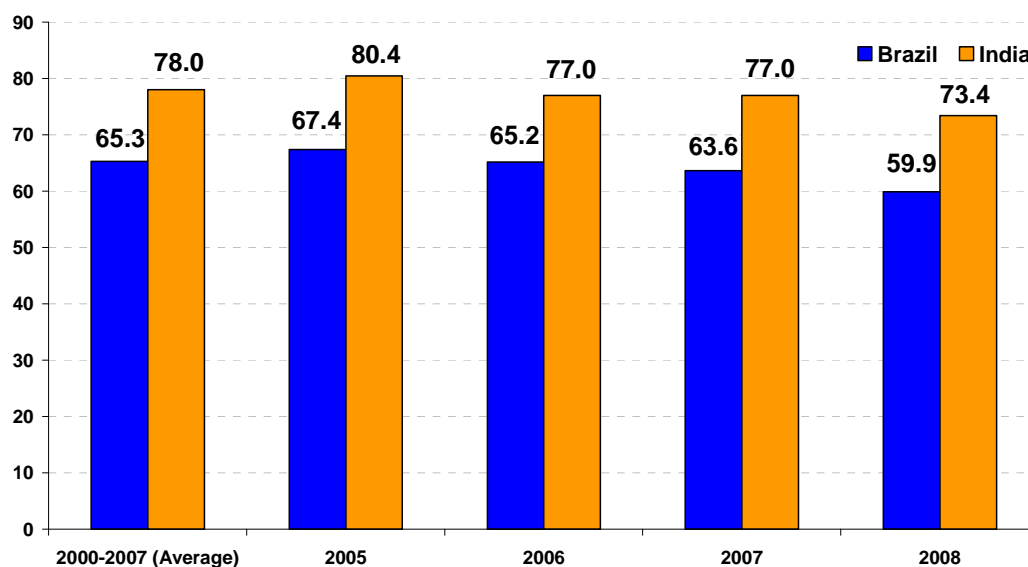
⁶ As expected, in the interviews with the main official economic institutions in India (Ministry of Finance, Ministry of Commerce and Industry, Planning Commission), all agreed that the public debt in India is easy to finance. Yet, in academic circles, concerns similar to Panagariya's (2008) were shown regarding the high nominal fiscal deficits and their effect upon sustaining public debt in the long run. For example, Bibek Debroy, of the Centre for Policy Research, recalled that there is a portion of para-fiscal debts related to state-owned oil companies that are not accounted for in the primary results.

⁷ Even though the basic interest rate in Brazil has fallen continuously between September 2005 (19.5% a.a.) and April 2008 (11.7% a.a.), the rate could be unequivocally high for international standards.

⁸ Data from Brazil's Central Bank and the Reserve Bank of India.

⁹ However, due to both the reduction of the country's external liabilities and the Brazilian Real appreciation, the net public debt as a proportion of GDP showed a significant decline in recent years (to 37.6% in March 2008, against 56% in September 2002).

Figure 2 - Gross domestic debt of the consolidated public sector in Brazil and India 2000-2008 (% of GDP)



Note: 1 The data from India for the period 2000/2008 refer to the respective fiscal years, beginning on April 1 of each year and ending on 31 March the following year.
 2 The value corresponding to 2008 for India is the value estimated in the year; the value corresponding to 2008 for Brazil is the value estimated until October.

Source: Central Bank of Brazil and Reserve Bank of India

To reduce inflation rates, between January 2005 and September 2008, the Reserve Bank of India steadily increased the annual basic interest rate (repo rate) from 4.75% to 9%. However, as shown in Table 1, in real terms, the basic interest rates in India did not exceed 2.5% p.a., and, shortly before the worsening of the crisis in September 2008, it was (as in other months of the series) at negative levels. In Brazil, real interest rates only started to decrease more consistently (with the nominal SELIC at 14.75%) after July 2006, reaching 4.7% in July 2008. As of August 2008, already reflecting successive SELIC increases, and once pressure on inflation was relieved, real interest rates in Brazil were again increased, reaching approximately 6.2% p.a. in December 2008, a level still considered high according to international standards and given the global deflationary trends.

Table 1 – Basic interest rates in Brazil and India 2004-2009 (%)

Period	Brazil		India	
	Basic Rate ¹ Announced	Real Basic Rate ²	Basic Rate ¹ Announced	Real Basic Rate ²
Oct-04	13.75	5.4	7.50	-2.10
Nov-04	13.75	6.2	6.50	-1.53
Dec-04	12.75	6.4	5.50	-2.37
Jan-05	12.75	6.4	5.50	-1.82
Feb-05	11.75	6.4	5.00	na
Oct-04	16.75	8.76	4.75	-0.05
Jan-05	18.25	8.35	6.00	0.51
Apr-05	19.50	8.23	6.00	0.29
Jul-05	19.75	10.69	6.00	1.52
Oct-05	19.00	11.79	6.25	1.74
Jan-06	17.25	12.68	6.50	1.64
Apr-06	15.75	13.25	6.50	1.49
Jul-06	14.75	12.90	6.50	0.00
Oct-06	13.75	12.37	7.00	-0.35
Jan-07	13.00	11.36	7.25	0.03
Feb-07	13.00	11.02	7.50	-0.68
Apr-07	12.50	10.49	7.75	0.35
Jul-07	11.50	8.91	7.75	0.85
Oct-07	11.25	7.79	7.75	1.96
Jan-08	11.25	6.83	7.75	2.10
Feb-08	11.25	6.71	7.75	2.16
Mar-08	11.25	6.37	7.75	-0.11
Apr-08	11.75	6.01	7.75	-0.06
May-08	11.75	5.31	7.75	0.00
Jun-08	12.25	4.88	8.00	0.11
Jul-08	13.00	4.68	8.50	-0.39
Aug-08	13.00	4.91	9.00	-0.92
Sep-08	13.75	5.13	9.00	-1.50
Oct-08	13.75	5.24	8.00	-2.09
Nov-08	13.75	5.44	7.50	-2.10
Dec-08	13.75	6.22	6.50	-1.53
Jan-09	12.75	na	5.50	na
Feb-09	12.75	na	5.50	na
Mar-09	11.75	na	5.00	na

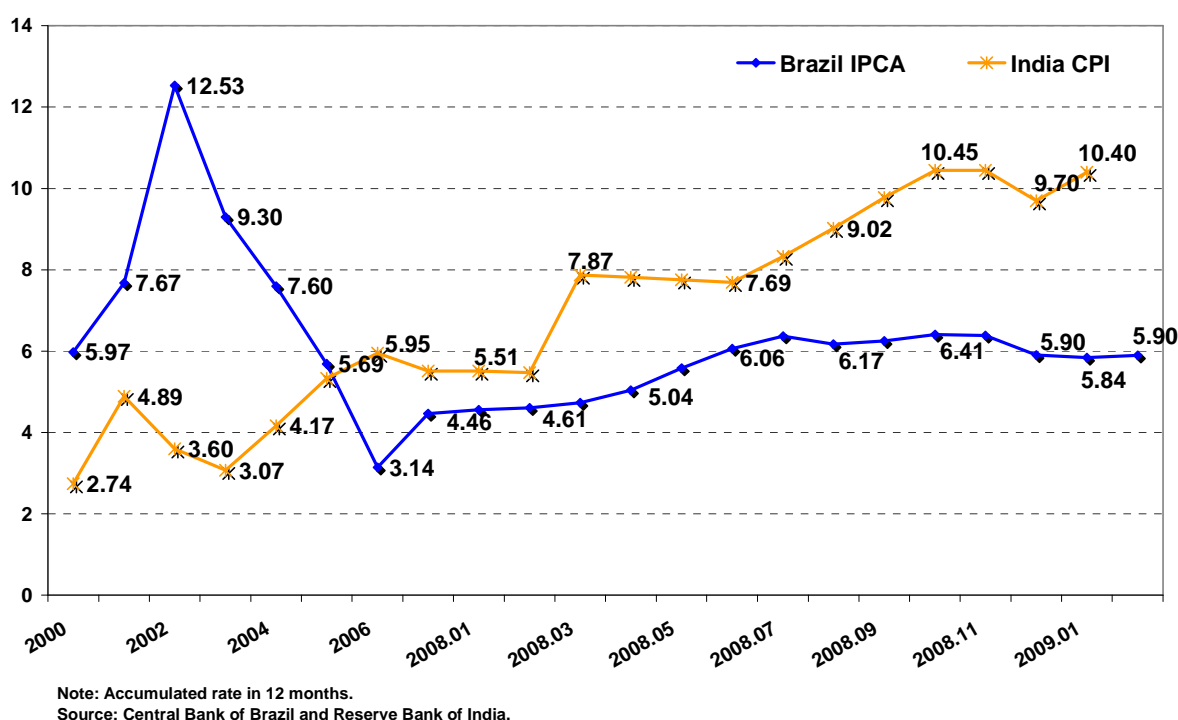
Notes: ¹ Selic for Brazil and Repo Rate for India. The values refer to the rate in effect in the period.

² Real interest rates were calculated based on the accumulated inflation monthly rate for 12 months, ex-post (i.e. based on the monthly inflation throughout the period). na: not available.

Source: Central Bank of Brazil e Reserve Bank of India.

Figure 3 shows that, albeit with initially lower levels than Brazil, inflation in India had been continually increasing since 2003, a time when Brazil was able to quickly reduce the consumer price index (IPCA), after reaching a peak of 12.5% in 2002¹⁰. Note that as of the second half of 2008 (calendar year), the escalating inflation in India has reached worrying levels in a country where inflation has historically remained at low levels.

Figure 3 - Inflation rates to consumers (IPCA) 2000-2009 (%)



As of 2008, the rise in consumer price indices in Brazil and India is associated essentially to the same factors that explain the inflationary pressure that has been unsettling most developing countries: the continuous and intense increase in commodity prices in the global market and its direct and indirect impacts on food prices. However, in the case of India, the inflationary pressure in

¹⁰ It is important to note that the rise in inflation in India was well underway before the pressure from commodity and food prices on global markets. In fact, data from the Commodity Research Bureau (CRB) confirm that the prices of these items remained relatively stable between May 2004 and November 2005. From then until September 2008, prices rose almost continuously.

recent years has been related to both high growth rates - which provoked a substantial increase in domestic credit and imbalances between aggregate supply and demand - and a rise in inflation expectations due to the huge fiscal deficit and its impact on public debt, as previously analyzed^{11 12}.

Monetary policy in both countries has been marked by at least two different aspects. Firstly, unlike in Brazil, in India there is no explicit inflation target regime. Besides the two basic interest rates (repo rate and reverse repo rate)¹³, the Reserve Bank of India operates the monetary policy combining the compulsory reserve requirements (the Cash Reserve Ratio - CRR) with the so-called Statutory Reserve Requirement (SLR), a mandatory percentage of government securities that banks must hold in their portfolio. Between July 2006 and August 2008, compulsory reserve ratios increased almost continuously from 5% to 9%. Secondly, in an attempt to restore price stability without compromising the economic growth, since the early 1990s, Indian policy-makers have been led by an anti-inflation strategy that is much more gradualist than Brazil's^{14 15}. As a comparison, although the Brazil's Central Bank had almost never altered the compulsory reserve ratios before September 2008, the mandatory percentage on

¹¹ For more details on the causes of the Indian inflation in recent years, see Reserve Bank of India (2008, especially pp. 54-64).

¹² In an interview with researchers of the economic department at the Reserve Bank of India, after having noted that inflation in India had been on the rise since 2003, we asked what the nature of Indian inflation was. According to them, the causes are linked to high growth rates - which produced imbalances between aggregate supply and demand - and the recent "import" of global inflation through the rise in commodity prices (especially oil). The role of inflationary expectations due to uncertainty regarding the expected increase of the stock of public debt (see Panagariya, 2008) was discarded.

¹³ The terms *repo* and *reverse repo* mean, respectively, injection and absorption of liquidity. See the Reserve Bank of India (2008, p. 56).

¹⁴ This strategy was confirmed in an interview with the economic research department of the Reserve Bank of India (RBI). For the RBI, in the period immediately before the worsening of the global crisis, the main focus of monetary policy was to reduce the long-term inflation rate to around 4.5% p.a., a level that would be considered "tolerable for a democratic society", but "now (that is, after Lehman Brothers' bankruptcy in September 2008), the priority of monetary policy is to sustain economic growth".

¹⁵ See Nassif (2007).

cash deposits in early July 2008 was approximately 45%, against only 8.75% in India¹⁶.

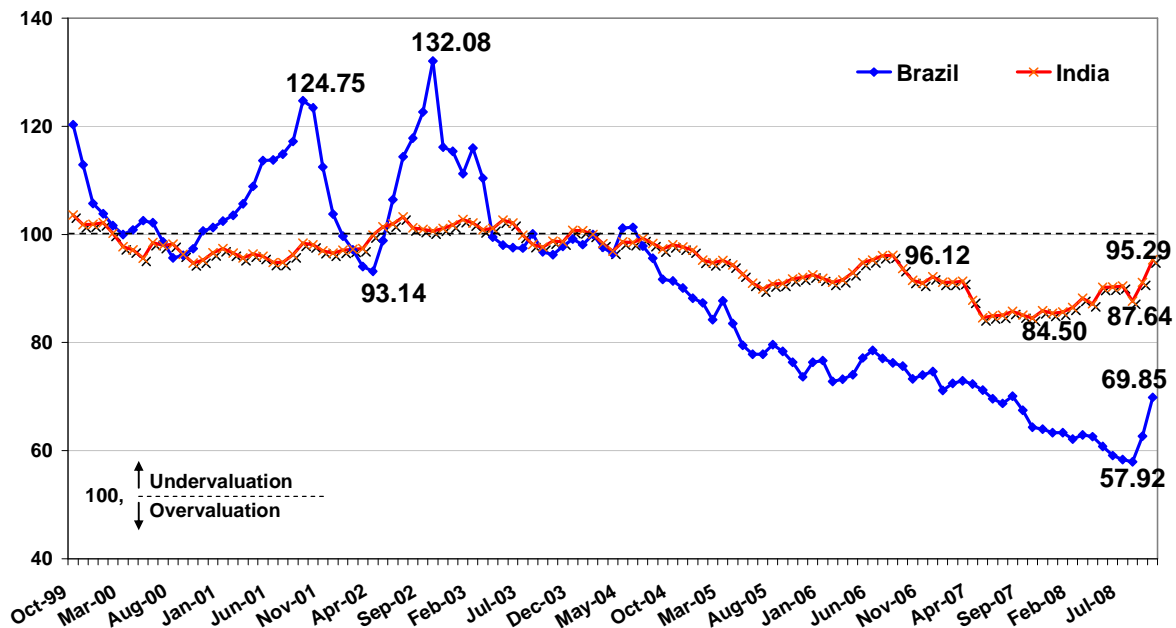
In 2006, despite the fact that Brazil has been more successful in maintaining inflation stability, it is necessary to stress that high interest rates (nominal and real) have long-term adverse implications for the Brazilian economy, which should not be ignored. In fact, a huge differential between domestic and international interest rates has customarily kept the Brazilian Real overvalued in relation to the currencies of Brazil's major trade partners in real terms (see Figure 4)¹⁷. In addition, high interest rates and their collateral effect on the overvaluation of the real exchange rate, either by increasing the cost of capital and the opportunity cost of investment and innovation, or diminishing the competitiveness of tradable goods, have jointly contributed for the long process of semi-stagnant growth of the Brazilian economy.¹⁸

¹⁶ Hausmann (2008, pp.13-14) seeks to explain, econometrically, why the short-term interest rates in Brazil are so high. He shows that they are significantly owing to the high basic interest rates and the “abnormally” high compulsory rates.

¹⁷ It is worth noting that the 1999-2002 period was an exception to the trend in question, a time during which there were two distinct episodes of severe nominal depreciation of the Brazilian Real: i) first, in the beginning of 1999, the overshooting of the exchange rate was caused by a speculative attack against the Brazilian Real, due to deterioration of expectations resulting from the dramatic increase of the current account deficits in the period 1994-1998; and ii) also, through 2002 the Brazilian Real suffered another large depreciation due to the negative expectations concerning the election of Luiz Inácio Lula da Silva, whom financial markets regarded (wrongly, one could say nowadays) as an anti-market candidate.

¹⁸ Based on Friedman (1968), one could point out that the role of monetary policy is to exclusively assure the stability of price levels. Nevertheless, this hypothesis is questionable in both theoretical and empirical terms. See, for instance, Tobin (1965, 1970) and Davidson (2003).

Figure 4 - Real effective exchange rates in Brazil and India (October 1999 to October 2008) - February 2004 = 100



Note: For Brazil, exchange rate R\$/13 currencies. For India, exchange rate Rs\$ (Rupee)/6 currencies. The original time-base (December 2003 for Brazil, and average of 1993 for India) have been put together for the period of reference Feb/2004 after finding that the Brazilian and Indian currencies reached the real level of parity in this last period.
Sources: FUNCEX and Reserve Bank of India.

Between 2004 (annual average) and early 2008, the Indian Rupee and the Brazilian Real kept trends of nominal appreciation against the U.S. Dollar¹⁹. In real terms, the Brazilian currency showed a stronger tendency towards overvaluation than the Indian Rupee. As Figure 4 shows, while the Brazilian Real was 40% overvalued in August 2008 in real effective terms, the Indian Rupee had a real overvaluation of 12%. Since the beginning of 2008, however, the Rupee showed a tendency to converge towards a real parity level²⁰.

¹⁹ The behavior of the nominal exchange rates was checked in the data-base of the Central Banks in both countries.

²⁰ Note that between 2006 and 2008, Brazil began to exhibit slightly more expressive growth rates of real GDP. At first, this might seem contradictory to the previous conclusions. However, in 2006, several Brazilian economists were already quite worried about the possibility that current economic growth is aborted by foreign exchange constraints on growth (see Cardoso, 2007; Lopez e Carvalho, 2008; and Bresser-Pereira, 2009). In fact, the overvaluation of the Brazilian currency in

3. The immediate impacts of the global crisis and responses from economic policies in Brazil and India

3.1 From the immediate financial impacts to the responses from economic policies

The bankruptcy of the U.S. bank Lehman Brothers on September 15, 2008, is the milestone of the current financial crisis that, initially limited to the financial markets of the United States, developed European countries and Japan, thereafter quickly spreading throughout global markets. Between mid-September and October 2008, the stock markets of virtually all countries accumulated substantial losses. At the same time, due to a move towards portfolio recovery to offset losses in third markets and the rush of investors to the safety provided by the U.S. Treasury securities, developing countries experienced immediate flight of capital and a sudden stop to new financial inflows, which ultimately caused a sharp depreciation of their currencies.

Much the same as most developing countries, Brazil and India suffered the immediate impacts of the global economic crisis. Since September and more intensely in October 2008, both countries have suffered a sudden flight of foreign capital – especially those directed towards investments in securities and stock portfolio (in the case of India, only the latter) – and currency depreciation. In November and December, adverse effects of the global crisis on economic activity were already widely acknowledged in both countries. Facing severe adverse financial impacts, India's and Brazil's economic authorities immediately provided monetary and fiscal stimulus to mitigate the negative impacts resulting from the global crisis.

real terms had already begun to revert the trend of high surpluses in the current account in the period 2004-2007. See the database of Brazil's Central Bank.

As of September 2008, when the financial and foreign exchange impacts that arose from the worsening of the global crisis became evident, the economic authorities in Brazil and India began to adopt specific measures to contain the flight of capital, stop currency depreciation and restore normality in private credit transactions and economic activity. Both Brazil and India immediately created instruments to prevent liquidity "puddles" from forming in private banks and, subsequently, granted additional resources so that public banks (trade and development) were able to continue financing both company and consumer expenditure. In Brazil, especially, to offset the effects of the credit crunch, public banks began to act in an anti-cyclical fashion by increasing the earmarked credit lines, by extrapolating – due to exceptional circumstances - its traditional functions. For instance, while the Brazilian Development Bank (BNDES) provided credit lines to finance working capital, the Banco do Brasil and Caixa Economica Federal acted as "quasi-lenders-of-last-resort" by purchasing portfolios from small and middle-sized private banks facing serious liquidity problems.

In a few cases, there was some similarity between the monetary and fiscal stimuli in both countries. Regarding monetary policy, similar measures included the creation of special credit lines to commercial banks and the reduction of compulsory deposits. As for fiscal policy, programs were adopted to expand public investment and tax exemptions to encourage the purchase of durable goods.

However, the main differences refer to the timing and the intensity of monetary and fiscal incentives that were applied in both countries. In this respect, compared to Brazil, India's strengths are connected with the speed and intensity of adopted monetary and fiscal stimuli. Concerning monetary policy, once it was clear that the global recession was well underway in October 2008, the Reserve Bank of India immediately cut the basic interest rate (repo rate – see Table 1)²¹. This decision was made within a context in which the monetary authorities, in spite of

²¹ In the words of the president of the Reserve Bank of India, "in the scope of the conventional monetary policy, besides the reduction of the compulsory deposits, we aggressively reduced the basic interest rate" (See Subbarao, 2009, p. 4).

facing a current annualized inflation rate to consumers of around 10% (see Figure 3), was aware that a sharp reduction in commodity prices would bring about a deflationary trend in the global economy. In contrast, in Brazil, while the Ministry of Finance opted, correctly, to provide additional liquidity to public banks to offset the squeeze in private credit, the Central Bank, running in the opposite direction, only resumed the downward trend in the basic interest rate (SELIC) in January 2009, with a delay of about 3 months after the worsening of the global crisis (see Table 1).

In a speech in Japan about the case of fiscal policy, the chairman of the Reserve Bank of India, Duvvuri Subbarao, reported that after the decision to loosen fiscal targets, the government stimulus measures implemented in December and January of 2009 alone would require additional public spending of approximately 3% of GDP²² (see Subbarao, 2009, p. 4). It is a considerable anti-cyclical package, taking into account that, in 2007, investments of the Indian central government represented around 3.1% of GDP²³. It is worth mentioning that in India there is a broader consensus in society – especially among the government and economists from various schools of thought – that, due to the loss of confidence and a strong liquidity preference, the most important instrument to offset the adverse effects resulting from the shrinkage of consumption and private investment is to increase public investment²⁴.

The broad consensus on the importance of the expansion of fiscal deficit as the most effective instrument in an anti-cyclical policy could be observed in several interviews in New Delhi and Mumbai, and in the printed media. For example, B. L.

²² According to Subbarao (2009), these fiscal packages involve “additional public spending, particularly capital expenditure, government guaranteed funds for infrastructure spending, cuts in indirect taxes, expanded guarantee cover for credit to micro and small enterprises, and additional support to exporters” (p. 4).

²³ The RBI report, published in April 2009, practically confirmed the numbers previously presented by the Governor of that institution. According to the report, “the impact of these (fiscal) measures on the fiscal year 2008-2009 reach close to 2.9% of GDP” (See Reserve Bank of India, 2009, p.12).

²⁴ A relative consensus in relation to the matter does not produce, obviously, any direct positive effects on economic activity. However, it “frees up” the government to react quickly and adequately to ease the adverse impacts from the global crisis.

Pandit, Head of the Department of Delhi School of Economics, after declaring that the line of academic research in the department was predominantly neoclassical, made it clear he was "highly favorable of the intensification of monetary and fiscal stimulus" as the most relevant instruments of economic policy to deal with the impacts of the global crisis in India. Similarly, in a speech at The Economic Times headquarters on January 28, 2009, Prime Minister Manmoham Singh acknowledged that "our problems will not be overcome this year. Difficulties will persist throughout the (fiscal) year 2009-2010". He added that "although the government had little room to act on the fiscal side, the country will need to endure a high fiscal deficit next year (2009-2010), so that the increase in public spending acts as stimulus to the economy". That is, the fiscal adjustment that was being implemented to reduce the huge ratio of the gross domestic public debt/GDP in India was stopped temporarily to prevent India from falling into recession. In the words of the Prime Minister, "the deficit in this fiscal year will be much larger than originally planned due to the impacts of the global economic crisis" (The Economic Times, 01/28/2009, p. 7)²⁵.

In Brazil, data released by the Ministry of Finance in February 2009 estimated that, this year, the federal government would invest about 1.2% of GDP. In addition to the investments planned by the State-owned oil company Petrobras (1.7% of GDP), the total amount of investment would reach 2.9% of GDP (see Ministry of Finance, 2009)²⁶. In view of the sharp slowdown in consumption, private investment and exports in the last quarter of 2008, we must recognize that this amount would be insufficient to compensate for such reversal of aggregate

²⁵ The difficulty to obtain a consensus on matters subject to political and economic conflict is typical in democracies. For instance, in the US once the economy had fallen into the "liquidity trap", it seemed obvious that the main stimulus to revert the recession was fiscal. Nevertheless, President Barack Obama has also suffered significantly in his attempts to approve the fiscal stimulus packages in the Congress. In the case of India, which for over 50 years has maintained its democratic system stable, the ease with which they obtain relative consensus in questions of this nature may be related to many aspects such as cultural, institutional, political and so on, all of which have no room for discussion here.

²⁶ These data are from a presentation given by the Finance Minister in February 2009. Therefore, they do not include additional investments announced in April 2009 and related to the housing stimulation program.

demand in the Brazilian economy and consequently prevent the current downturn from getting worse. It is true that when it became clear there would be a strong reduction in real GDP in the last quarter of 2008 compared to the immediately preceding quarter (-3.6%), the economic authorities started, in March 2009, to react more intensely against the effects of the global crisis on the Brazilian economy. First, the Brazil's Central Bank expressed more willingness to the market by speeding up the cuts in basic interest rate (SELIC), reducing it by 1.5 percentage point in the meeting on March 11²⁷. And equally (or more) important in the context of fiscal policy, policy-makers have recently recognized the urgency of increasing the resources allocated to public investment programs. The proof is that the adoption of a housing program package providing for the construction of 1 million homes by 2010 will mobilize additional public funds of about R\$34 billion (approximately 1.2% of GDP)²⁸. However, as we can see in the next subsection, by having adopted much more quick and powerful monetary and fiscal policies than Brazil, Indian policy-makers have prevented the country from escaping the recession in 2009.

3.2 Impact on real economy

One of the first transmission channels of the international financial crisis was foreign trade financing and the rapid drop in world trade. Figure 5 shows a comparison between the immediate impact of the global crisis on India's and Brazil's exports (bars) and world trade (continuous line). In India, as in most countries in the global economy, the decline in exports was the first adverse impact of the crisis on the real sector of the economy²⁹. The sudden stop in trade financing

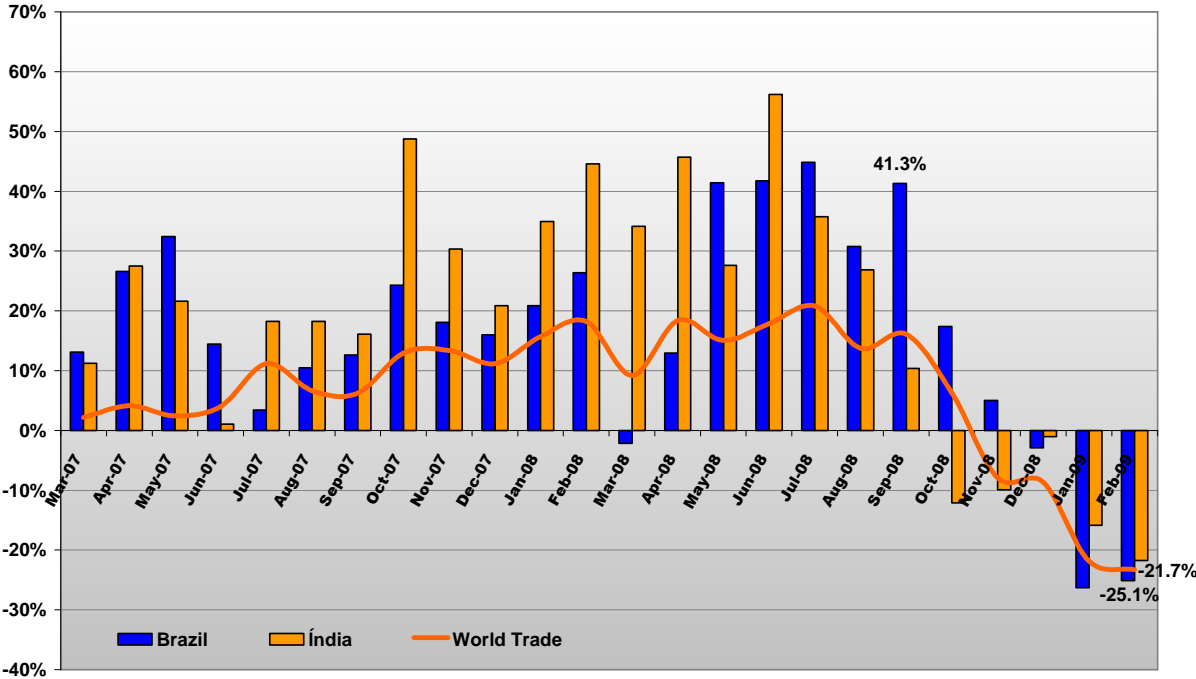
²⁷ In this meeting, the SELIC was reduced to 11.25%, and in the previous meeting on January 21, 2009, it had been reduced by 1 percentage point (to 12.75%), after having been maintained at 13.75% in the meetings on September 10, October 29, and December 10, 2008, in the midst of the worsening global recession. See Brazil's Central Bank database.

²⁸ According to information from Agência Brasil – EBC (Empresa Brasil de Comunicação), on March 25, 2009.

²⁹ In Brazil, the impact of the global crisis on industrial production was immediate and happened prior to negative impacts on exports. In fact, the manufacturing sector had already begun to slowdown in October and then registered a drop in November 2008 (see IBGE database). In India, both exports and the industrial production were adversely affected in October 2008.

and the abrupt slowdown in trade with major partners immediately drove down India's exports. As shown in Figure 5, after reporting a strong decline in October 2008, in the following month foreign sales continued to fall (10% compared to the same month in the previous year). Between February 2008 and February 2009, exports again fell sharply (-21.7%). This is undoubtedly a considerable impact, taking into account that until July 2008 exports had been growing at an average monthly rate of 28%.

Figure 5 – Exports (2007-2009) - Monthly variation compared to the same month of previous year (%)



Source: For Brazil, Bureau of Foreign Trade (SECEX) and, for India, Department of Commerce and the Government of India.

Unlike in India, Brazilian exports only began to post negative growth rates in December 2008. Nevertheless, the impact could still be considered modest, compared to the negative impact brought by the sharp fall in prices of commodities, which represent a considerable share of Brazil exports. However, in January and

February 2009, the adverse effects of the international crisis on Brazilian exports were evident: a reduction of -26.3% and -25.1%, respectively, compared to the same months in the previous year. Since the drop in prices of goods exported by Brazil was, on average (respectively, -3.1% and -6.8%), much lower than the drop in the amount of foreign sales in the same period, the fall in exports was more adversely affected by the reduction of the *quantum* exported (respectively, -24.2% and -19.9% in the same period). In summary, Figure 5 shows that the drop in Brazilian exports was more intense than in India, and was steeper than the drop in world exports in the first two months of 2009.

Figures 6 and 7, and Table 2, below, show the immediate impacts of the global crisis on economic activity in both countries. Starting with the effects on the manufacturing sector's activity, Figure 6 shows the moving quarterly averages of monthly variations in industrial production compared to the same month of the previous year. Between the beginning of 2007 and September 2008, while India showed a slowdown in industrial production, Brazil showed an opposite trend in the same period. It is clear that the enormous impact brought on by the global crisis forced a strong slowdown in industrial activity in Brazil and India in the last quarter of 2008. However, the negative impact on the Brazilian manufacturing sector was much more severe than in India. Between December 2008 and February 2009, industrial production had an average decline of -16.3% compared to the same period in the previous year. In contrast, the industrial production in India showed a very strong deceleration (+0.3%), but not a contraction, in the same period. In the second quarter of 2009, although the moving monthly average of industrial activity in Brazil reported a slight recovery (-12.3%), the average decline was still significant compared to the same period in the previous year.

Figure 6 - Changes in the industrial production in Brazil and India (2006-2009)
Monthly variations compared to the same month of the previous year (%)
(Moving quarterly averages)

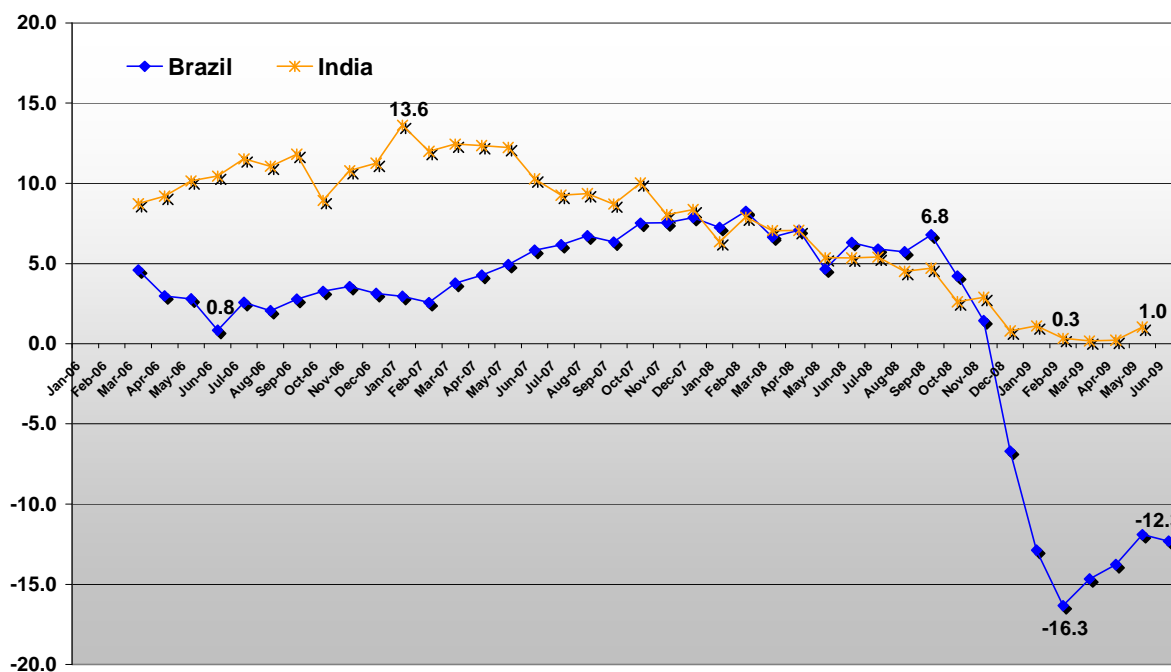
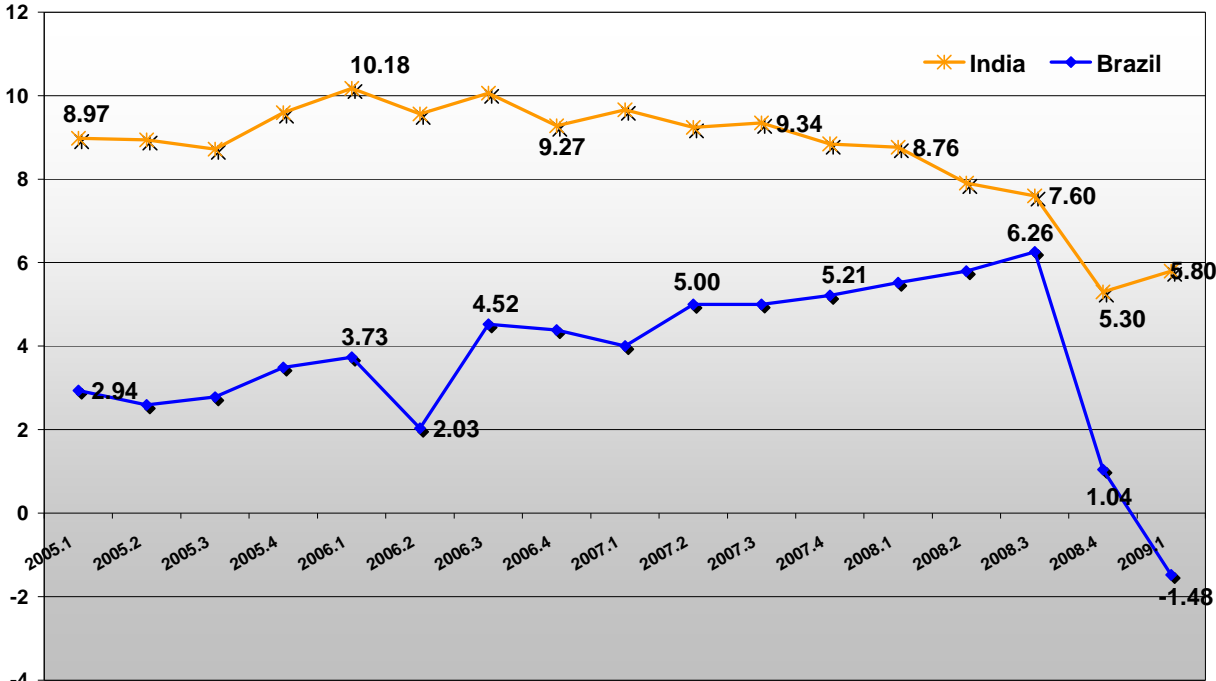


Figure 7 shows quarterly change in real GDP in Brazil and India, compared to the same quarter of the previous year. The Indian economic deceleration was already underway since the first quarter of 2008. This slowdown were not related to any structural problem, but, as already analyzed, to the effects from RBI anti-inflation policy. In India, the immediate impact of the global crisis after September 2008 made the economic slowdown more severe after the third quarter of 2008. After having reached a growth of 7.6% in the third quarter of 2008, compared to same period of the previous year, the crisis forced a rapid deceleration in the Indian economy, which ended the last quarter of 2008 with a positive variation of 5.3%. In the first quarter of 2009, the Indian economy already showed some recovery, with real GDP growth of 5.8%, a very unlikely result if there had not been a vigorous response from both monetary and fiscal policy. In Brazil, in a marked

contrast, the real GDP growth presented a severe slowdown in the fourth quarter of 2008 and fell into a recession in the first quarter of 2009 (see Figure 7). The main reason to explain this very poor performance is connected with the first assessments put forth by the Brazilian policy-makers on the impacts brought about by the global crisis on the real Brazilian economy in the aftermath of Lehman Brothers bankruptcy in September 2008. Having first expected that the most important developing countries (Brazil included) would be relatively decoupled from the U.S. financial crisis, Brazilian policy-makers, different from those in India, not only took too long to reduce the interest rate (SELIC), but they also hesitated in expanding public current expenditures and investments to an extent that could partially offset the fall of the private expenditures.

Figure 7 - Changes in real GDP in Brazil and India before and immediately after the global economic crisis (quarterly changes - %)



Note: Real GDP at factor cost for both countries.
Source: IBGE and Reserve Bank of India.

Table 2, which shows the quarterly comparison year-on-year in real GDP growth according to the components of aggregate demand, helps to highlight the immediate effect of monetary and fiscal policies on economic activity in Brazil and India. Since the beginning of 2008, most demand components have been growing at high rates in both Brazil and India. In Brazil, with the exception of exports, all other variables have been growing at either very high rates (gross investment and imports) or high rates (household consumption and current government expenditure). In India, although some variables have shown a more unstable trend, the data reveal that, on average, the most dynamic components have been gross investment and exports.

Table 2 - Brazil's and India's recent changes in aggregate demand components - Quarter-on-quarter variation (%)

Country	Demand Component	Period							
		2007.1	2007.2	2007.3	2007.4	2008.1	2008.2	2008.3	2008.4
Brazil	Household Consumption	6.4	5.9	5.6	7.2	6.3	5.9	7.3	2.2
	Government Consumption	4.7	6.3	4.5	3.6	6.5	4.3	6.4	5.5
	Exports	6.2	13.6	1.7	6.2	-2.3	4.9	2.0	-7.0
	Imports	20.0	18.6	20.7	23.5	18.8	26.0	22.8	7.6
	Gross Fixed Capital Formation	9.0	13.4	15.2	16.0	15.4	16.6	19.7	3.8
India	Household Consumption	5.7	6.1	7.3	8.5	8.4	8.9	7.1	6.1
	Government Consumption	5.7	-2.6	11.7	3.5	16.8	9.7	6.5	26.8
	Exports	15.5	14.1	18.5	15.3	9.6	9.4	13.3	4.6
	Imports	15.1	-3.4	-2.8	9.5	7.6	26.6	15.7	11.0
	Gross Fixed Capital Formation	12.6	-1.8	-3.2	8.2	7.7	31.9	29.9	22.1

Note: For India, the data released by the International Monetary Fund are originally expressed in nominal terms. Nominal values were converted to real values based on the Indian GDP implicit price deflator.

Sources: IPEA data for Brazil and International Monetary Fund for India.

The last column of Table 2 captures the initial impact of the global crisis and the effects of the first round of responses from the economic policies on the components of aggregate spending in both countries. The adverse effect on the Brazilian economy can be clearly seen in the strong slowdown in gross investment, consumption and imports, and particularly in the decline in exports. Government consumption, having suffered a slight fall, was not able to partially offset the strong slowdown of household consumption and private investment in the last quarter of 2008. In India, in its turn, exports appeared as the most adversely affected component on the threshold of the global crisis. However, the dramatic increase of government expenditure in the last quarter of 2008 reveals how effective the immediate reaction of Indian fiscal policy was in preventing a strong downturn of aggregate demand. Between the third and the fourth quarter of 2008, government consumption in India rose from a yearly growth rate of 6.5% to 26.8%. The behavior of the other components of private demand (household consumption and investment) confirms the conclusions of the RBI Annual Report according to which “the deceleration in private consumption expenditure was partially offset by a sharp increase in government expenditure during the third quarter emanating from the discretionary fiscal stimulus measures and committed expenditures” (see Reserve Bank of India, 2009, pp. i-ii). In addition, while in the first quarter of 2009, Brazilian economy faced a certain environment of technical recession, the Indian one, showing a yearly real GDP growth rate of 5.8%, exhibited resilience against the negative effects of global recession.

4. In conclusion: what to expect after 2009, the "lost" year?

After the bankruptcy of Lehman Brothers, as of September 2008, the capitalist system has experienced an economic crisis not seen since the Great Depression of the 1930s. The spread of the global crisis to developing countries dismantled the decoupling theory, according to which the greater relative importance of Asian countries (notably China) in world GDP would prevent the recession in the U.S. from spilling over to the global economy. On the contrary, the

global economic crisis has thrown the majority of developing countries into a process of recession.

Back in September 2008, when Brazil and India faced the first adverse impacts of the global crisis through the financial channels, one could have suspected that Brazil and India would be affected in a very similar way, especially with regard to the downturn of economic activity. However, India unfolds as one of the few countries in the world that escaped the recession in the middle of the global “storm”. Although the Indian economy has decelerated in the aftermath of the global crisis, in September 2008, it has shown a rapid capacity to recover. The growth rate of India’s real GDP in the last quarter of 2008 and first quarter of 2009 (5.3 and 5.8, respectively) is enough to conclude that the Indian economy was much less adversely affected than the Brazilian economy.

The resilience of the Indian economy to the recessive impacts of global crisis can be explained by three main reasons: the first is that Indian foreign exchange law, in spite of being relatively permissive to the investments in the stock market, is still highly restrictive to the applications in both government treasuries and most fixed-income assets. Therefore, under less external financial integration – a rare situation in most developing countries in the late 2000s – policy-makers were successful in restoring positive expectations more effectively, even though the global economy had been driven in the opposite direction.

The second reason is related to the speed and intensity in the reduction of the basic interest rates by the Reserve Bank of India. This decision was essential to signal to markets that the priority would be to prevent a sharp slowdown or even, in the eventual worst outlook, shrinkage of economic activity. For instance, between October 2008 and January 2009, the basic interest rate in India had been successively reduced from 9% to 5.5%, a decline of 3.5 percentage points in a country that was facing annual consumer inflation of around 9%. In contrast, in Brazil, despite the various negative impacts displayed in the last quarter of 2008,

the Brazilian Central Bank only began to reduce basic interest rates as of January 2009. Even so, until March, the SELIC had only declined 2.5 percentage points. This behavior suggests that, even under the most serious economic crisis since the Great Depression of the 1930s, the Brazilian monetary authorities were not able to get free from their own strong monetarist bias.

The third reason is that the measures of fiscal stimulus in India were much more intense than those adopted in Brazil. According to the RBI's Report on the 2008-2009 fiscal year, "implementing the fiscal stimulus packages required that the government defer the stipulated deficit targets under the Fiscal Responsibility and Budget Management Act, 2003" (see Reserve Bank of India , 2009a, p. ii). Indeed, for a nominal fiscal deficit originally budgeted at 2.5% of GDP for the fiscal year, the same document states that the Indian government revised the results lifting the figure to 6% of GDP in the same period!³⁰ In Brazil, we must recognize that the fiscal stimulus measures, which were released from October 2008 to the end of February 2009, would not have enough strength to prevent the economic recession in 2009. In fact, even taking into account the investments made by the State-owned oil company Petrobras (around 1.7%), investments by the federal government, planned as 1.2% of GDP, would only represent an increase of 0.2 percentage points compared to 2008.

Although non-official projections for Brazil indicated a real GDP growth varying from -0.5% to 1% in 2009, most of these indicators are anchored in the assumption that the measures of monetary and fiscal stimulus implemented so far will have effects on the economic activity with some time lag. Any effort to deter the Brazilian economy from recession in 2009 would have to be based on two essential conditions: i) the continuing fall in basic interest rates, more than justified by the current context of a significant real output gap, a low inflation rate and

³⁰ In its turn, the same Report informs that the primary result was initially estimated a surplus of 1.1% of GDP in the fiscal year 2008-2009. Then, it was restated as a deficit of 2.5% of GDP. It is also important to point out that the Indian government estimates, for the current fiscal year 2009-2010, a significant increase in the primary and nominal fiscal deficits. See Reserve Bank of India (2009a, p.12).

inflation expectations³¹; and ii) the implementation of a plan to increase public investment in a more appropriate intensity than the tax incentives program had initially implemented by the end of February 2009, aiming to reactivate consumption, income and employment in the Brazilian economy³². In this latter respect, once the decline in real GDP that occurred in the last quarter of 2008 was revealed, Brazilian policy-makers decided to implement a more strong fiscal policy. For instance, by April 2009, the economic team announced public investments in a housing program to provide 1 million standard homes in 2009-2010, involving the mobilization of R\$ 34 billion (1.2% of GDP). The focus on increasing such public investment, compared to current unproductive expenditure, has greater potential to reactivate the economy due to known Keynesian multiplying effects of income and employment.

In April 2009, the press also reported the government's decision to submit an amendment to the Law of Budget Guidelines to the Congress, proposing the temporary reduction in the primary fiscal surplus of 3.8% to 2.5% of GDP. This will allow further releases of funds for increased public investment and other government expenditures (see O Globo, April 16, 2009, Economics section, p. 19)³³. It is worth remembering that, given the time delay required for monetary and fiscal stimuli – especially public investments, that take time to effectively mature and produce effective impacts on economic activity – the measures announced, although necessary, may not be sufficient to dissolve the negative effects in 2009³⁴.

³¹ See recent inflation indicators, level of utilized capacity and inflationary expectations on the websites of the IBGE (<http://www.ibge.gov.br>), the Brazilian Confederation of Industry (CNI) (<http://www.cni.org.br>) and Brazil's Central Bank (<http://www.bcb.gov.br>).

³² As mentioned by the former minister of Finance, Antônio Delfim Netto, fierce critic of high interest rates in Brazil, “even with a drop in interest rates, the carry over from 2008 will generate a lower growth in GDP in 2009. This growth, notwithstanding, was not foreseen in 2008, or in the stars. It will depend on what the private sector and, mainly, the government do in the remaining nine months”. (Valor Econômico, March 17, 2009, p. A 2).

³³ Despite the criticism by renowned Brazilian economists concerning this decision (e.g. the former president of the Central Bank of Brazil, Armínio Fraga Neto), it must be assessed as equally correct.

³⁴ Krugman (2009) also recognizes this problem. However, he added that “as long as public spending is pushed along with reasonable speed, it should arrive in plenty of time to help a weak

In any case, in the current context of strong economic downturn and recession trends, the two main instruments employed in anti-cyclical policy are the monetary and the fiscal policies. Many analysts in Brazil strongly argue that, given the high real interest rates still prevailing in the Brazilian economy, the monetary policy should be prioritized over the fiscal policy as the main mechanism against recession in the country. Some of them even do not recommend the use of fiscal stimulus, because of the fear (without empirical support) of lack of control of long-term public debt³⁵. However, since private investment and household consumption became the main components of aggregate demand that explain the real GDP growth in both countries in the period immediately before the global crisis, the role played by increasing public investment as a mechanism to partially offset the fall of private spending is absolutely relevant in avoiding a recession. In Brazil, for instance, for a 5.1% growth in real GDP in 2008, 3.3 percentage points originated from household consumption (64% of total) and 2.4 percentage points from gross investment (47% of total). Similarly, these two components were responsible for 55% and 34%, respectively, of real GDP growth in India in the same period.

In the case of Brazil, particularly, the greater the ambition of an anti-cyclical fiscal package, the more policy-makers should be willing to temporarily reduce the primary fiscal surplus, or even to increase (also temporarily) the primary deficit, following the example of the Indian government. Still, one might argue that the reduction of primary government savings could undermine the fiscal stability in the long term. However, in the global context characterized by (the threat of) depression and not simply a normal reversion of the business cycle, any significant

economy from plunging into an actual depression” (p.188). He also mentions two advantages from public spending over fiscal cutbacks: i) the first is that “money would actually be spent”; and ii) the second is that “something of value (e.g, bridges that don’t fall down) would be created” (p.188).

³⁵ To mention just a few influential Brazilian economists that defend this position, it is enough to quote the collection of short articles originally published by the economic consultancy “Casa das Garças”, entitled “How to react to the crisis?” See especially the articles from Bacha (2009), Fraga Neto (2009) and Parnes e Goldfajn (2009). On the other hand, there are other Brazilian economists who defend the use of fiscal policy either intensively (see Bresser-Pereira, 2009a) or moderately (see Mendonça de Barros, 2008).

reduction in primary surpluses, if necessary, should be implemented as the most effective instrument against the downturn of economic activity in 2009.

Accordingly, any significant reduction in the primary surplus should not be seen as a matter of concern, as long as this measure is taken exclusively to prevent (the threat of) recession. In this regard, it is worth quoting Keynes (1942) in his response to a James Meade's comment. Surprisingly, Keynes expressed his opposition to the use of fiscal policy as a (very) short-term anti-cyclical instrument, but defended it as the most effective measure for fighting the trends of chronic recession or depression:

“Organized public works, at home and abroad, may be the right cure for a chronic tendency to a deficiency of effective demand. But they are not capable of sufficiently rapid organisation (and above all cannot be reversed or undone at a later date), to be the most serviceable instrument for the prevention of the trade cycle” (p.122).

If those arguments are not enough, we may also emphasize that, despite still having a high gross domestic debt (see Figure 3), Brazil managed to significantly reduce the net debt of the public sector as a proportion of GDP (37.6% in March 2009, against 56% in September 2002, according to IPEA data). Therefore, contrary to what happened between 1997 and 2003, there is more room to carry out anti-recessive policies without compromising fiscal stability in the long term.

With this, we must recognize that, as the momentum in Brazil and the world economy by mid-2009 was still characterized by a widespread crisis of confidence and a tendency to prefer liquidity, reducing the interest and credit stimuli *per se* without adopting a firm anti-cyclical fiscal policy would hardly prevent recession in the Brazilian economy. Quoting John Hicks in his critical paper about Keynes's General Theory (1936) - see Hicks, 1937 - the economic environment in 2009 requires the use of the "Mr. Keynes' great depression theory". This means that,

although the flexibilization of monetary policy is important in that context, the emphasis should fall on fiscal policy.

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