



**ADB Working Paper Series**

**The Global Economic Crisis:  
Impact on India and  
Policy Responses**

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Rajiv Kumar and  
Pankaj Vashisht

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Rajiv Kumar is a director at the Indian Council for Research on International Economic Relations (ICRIER) in New Delhi, India. Pankaj Vashisht is a research associate at ICRIER. An earlier version of the paper was presented at a conference organized by the Asian Development Bank Institute (ADBI) in Tokyo on 23 April 2009. Comments received have been appropriately incorporated.

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Asian Development Bank Institute  
Kasumigaseki Building 8F  
3-2-5 Kasumigaseki, Chiyoda-ku  
Tokyo 100-6008, Japan

Tel: +81-3-3593-5500  
Fax: +81-3-3593-5571  
URL: [www.adbi.org](http://www.adbi.org)  
E-mail: [info@adbi.org](mailto:info@adbi.org)

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**Abstract**

India's financial sector is not deeply integrated with the global financial system, which spared it the first round adverse effects of the global financial crisis and left Indian banks mostly unaffected. However, as the financial crisis morphed in to a full-blown global economic downturn, India could not escape the second round effects. The global crisis has affected India through three distinct channels: financial markets, trade flows, and exchange rates. The reversal in capital inflows, which created a credit crunch in domestic markets along with a severe deterioration in export demand, contributed to the decline of gross domestic product by more than 2 percentage points in the fiscal year 2008–2009. In line with efforts taken by governments and central banks all over the world, the Government and the Reserve Bank of India took aggressive countercyclical measures, sharply relaxing monetary policy and introducing a fiscal stimulus to boost domestic demand. However, this paper argues that with very limited fiscal maneuverability and the limited traction of monetary policy, policy measures to restore the Indian gross domestic product growth back to its potential rate of 8–9% must focus on addressing the structural constraints that are holding down private investment demand.

**JEL Classification: G01, E66**

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## 1. INTRODUCTION

The Indian economy looked to be relatively insulated from the global financial crisis that started in August 2007 when the sub-prime mortgage crisis first surfaced in the United States (US). In fact, the Reserve Bank of India (RBI) was raising interest rates until August 2008 with the explicit objective of cooling the economy and bringing down the gross domestic product (GDP) growth rate, which visibly had moved above the rate of potential output growth and was contributing to the build up of inflationary pressures in the economy.<sup>1</sup> But when the collapse of Lehman Brothers on 23 September 2008 morphed the US financial meltdown into a global economic downturn, the impact on the Indian economy was almost immediate. External credit flows suddenly dried up and the overnight money market interest rate spiked to above 20% and remained high for the next month. It is perhaps judicious to assume that the impacts of the global economic downturn on the Indian economy are still unfolding. Against this backdrop, this paper attempts an analysis of the impact of the global financial crisis on the Indian economy and suggests some policy measures to put the economy back on track.

Broadly, the paper has been divided into six sections. After summarizing the severity of the current crisis in Section 2, Section 3 deals with the impact of the crisis on the Indian economy. Section 4 discusses the monetary and fiscal policy responses to the crisis, while Section 5 provides a critical assessment of the policy responses. In the final section we recommend some policy measures that are needed to reverse the downturn.

## 2. SEVERITY OF THE CURRENT FINANCIAL CRISIS

Banking and financial crises have been a regular feature of modern economic history. According to one estimate, there have been 86 banking crises since the Great Depression that have spread beyond national borders. According to a World Bank study in 2001,<sup>2</sup> the world has witnessed as many as 112 systemic banking crises from the late 1970s to early 2001. Most crises, including the current one, share some common features. Some general examples include a search for increasingly higher yields in financial markets, a lax regulatory regime, a mismatch in appetite for risk and the capacity for bearing it, and the consequent build up of asset bubbles, usually in the real estate sector, which for various reasons is overlooked by the regulators. The recent financial sector crisis shares most, if not all, of these features. However, what makes the current crisis exceptional is that it emerged at the very epicentre of global capitalism, the US, and its contagion spread very quickly to the entire global economy, unlike previous crises that were usually confined to a region or a small number of countries. Economies like India and the People's Republic of China (PRC), where the financial sectors were not as integrated with the global financial system, were spared the first round adverse effects of the current crisis and their banks were left mostly unaffected. However, these giant economies and their Asian neighbors could not escape the second round effects that severely impacted their trade flows due to the collapse of output and trade in advanced economies.

The severity of the current crisis can be gauged by the steep decline in the equity markets of advanced economies. The bursting of the sub-prime housing bubble caused Wall Street to lose a staggering US\$8 trillion in market capitalization in a very short time (Brunnermeyer 2009). Interestingly, the loss in market capitalization and crash in equity prices has been

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<sup>1</sup> Several observers, led by Surjit Bhalla, had been pointing out since May 2008 that inflation, which had gone as high as 12.3% at the end of June 2008, was largely imported and a result of global commodity price hikes. Therefore, inflation had little to do with India's own rate of economic growth, which started to slow down in the third quarter of FY2007–2008 after reaching the highest level of 10.6% in the second quarter of the same fiscal year. See Bhalla (2008).

<sup>2</sup> For detail, see Wolf (2008)

significantly higher in periphery economies as compared to US markets (Table 1). According to Eichengreen and O'Rourke (2009) global stock markets fell faster during the current crisis than in 1929.

**Table 1: Stock Market Crash and Exchange Rate Changes of Selected Countries**

	<b>Stock Market Changes June–December 2008 (%)</b>	<b>Exchange Rate Changes June–December 2008 vis-à-vis US\$ (%)</b>
PRC	-48	1
Hong Kong, China	-40	1
India	-41	-13
Republic of Korea	-36	-20
Argentina	-51	-13
Brazil	-49	-31
Mexico	-29	-26
Japan	-36	18
Eurozone	-37	-11
US (S&P 500)	-36	-

Source: Loser (2009).

The financial crisis soon morphed in to a full-fledged global economic downturn as credits markets froze, aggregate demand in all advanced economies fell, and commodity prices crashed, forcing exporters to shelve expenditure and lay off workers in large numbers. Consequently, industrial production collapsed worldwide. In the last quarter of the calendar year 2008, advanced economies and large economies like India and the PRC witnessed a contraction in their industrial production. In some of the major export-oriented countries like Japan, Germany, and Brazil, industrial output contracted more than 10% during the third and fourth quarters of fiscal year (FY) 2008. The decline in industrial output made labor retrenchment and surging unemployment almost inevitable. According to the International Labour Organisation's (2009) Global Employment Trends Report more than 50 million people are expected to lose their jobs due to the crisis.

The severity and suddenness of the crisis can also be judged from the IMF's forecast for the global economy. During the last 10 months (July 2008 to April 2009), the IMF revised its forecasts four times, all in the negative direction. In July 2008, it projected a growth rate of 3.9% for the world economy for 2009. However, this figure was reduced to 2.2% in November 2008 and further to 0.5% in January 2009. Finally in April 2009, for the first time in 60 years, the IMF predicted a global recession with negative growth of 1.3% for world GDP in 2009. Comparisons with the Japanese experience since the bursting of its own real estate bubble in the late 1980s and the consequent stagnation over the 1990s have been drawn to suggest a possible long period of weak economic activity in advanced economies. Initially the IMF projected a positive growth rate of 1.8% for 2010 indicating a somewhat weak V-shape recovery. But by July 2009 this had changed and the possible recovery in 2010 was forecast to be much stronger. Because the recession in developed countries is expected to continue, developing countries are anticipated to lead the global turnaround.

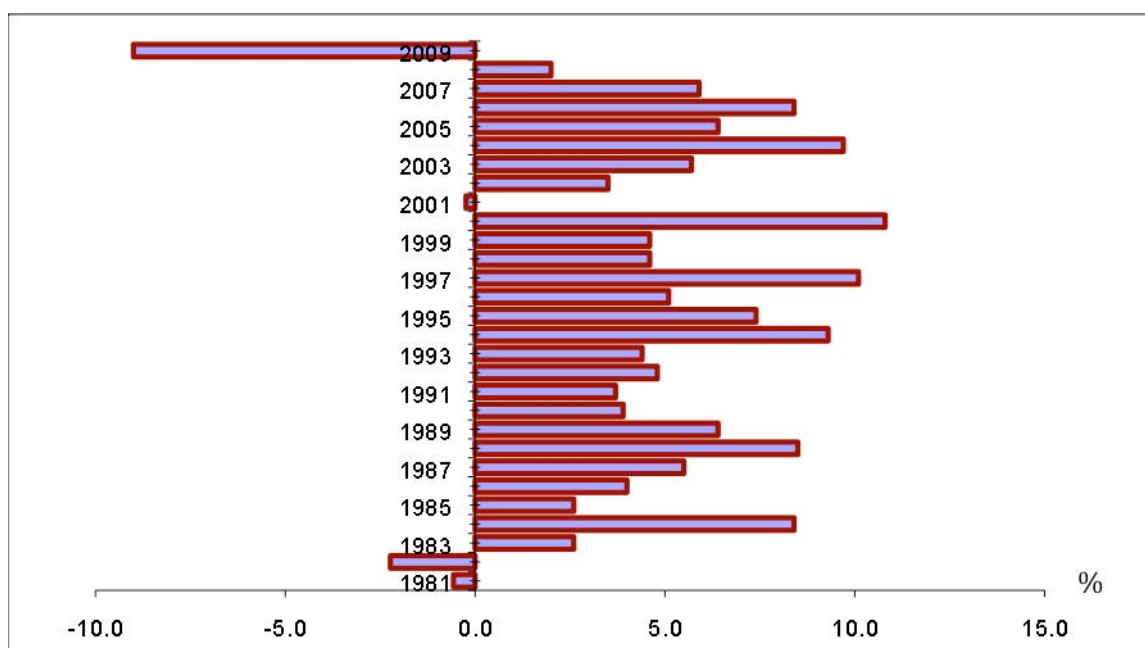
**Table 2: IMF Growth Projections**

	GDP Estimates for 2009				GDP Estimates 2010	
	Jul 2008	Nov 2008	Jan 2009	Apr 2009	Jan 2009	Apr 2009
US	0.8	-0.7	-1.6	-2.7	1.1	-0.04
United Kingdom	1.7	-1.3	-2.8	-4.0	0.2	-0.4
Germany	1.0	-0.8	-2.5	-5.0	0.1	-1.0
Japan	1.5	-0.2	-2.6	-6.1	0.6	0.5
France	1.4	-0.5	-1.9	-2.9	0.7	0.4
Canada	1.9	0.3	-1.2	-2.5	1.6	1.1
Italy	0.5	-0.6	-2.1	-4.4	-0.1	-0.4
Russia	7.3	3.5	-0.7	-5.9	1.3	0.5
PRC	9.8	8.5	6.7	6.5	8.0	7.5
India	8.0	6.3	5.1	4.5	6.5	5.6
World	<b>3.9</b>	<b>2.2</b>	<b>0.5</b>	<b>-1.3</b>	<b>3.0</b>	<b>1.8</b>

Source: IMF (2008b, 2009).

The fear is that the rather grim economic outlook, as reflected in the IMF forecasts, may induce many countries to turn to protectionism to ensure sufficient demand for their domestic industry and prevent a further rise in unemployment. In a recent study, Gamberoni and Newfarmer (2009) found that since the onset of the current global crisis, 17 of the 23 members of the informal G-20 grouping that met at the Washington Summit in November 2008 have invoked protectionism in one form or another despite agreeing to not take any new protectionist measures. This is indeed worrisome because it will further exacerbate the decline in global trade, which already has seen a historical collapse since the crisis began in October 2008. Given the sharp export contraction in the world's major exporting economies like Germany, Japan, and the PRC,<sup>3</sup> the growth rate of global trade fell from 6% in 2007 to 2% in 2008 (Figure 1). Furthermore, according to the World Trade Organization (WTO), world trade is expected decline by as much as 9% in FY2009–2010, which would make it the biggest contraction in global trade since World War II.

<sup>3</sup> The exports from these countries have registered a contraction of more than 35% in the last quarter of calendar year 2008.

**Figure 1: Annual Growth of Global Trade Volumes 1981–2009, Actual and Forecast**

Source: World Trade Organization (2008, 2009).

Essentially, the current crisis is truly global in nature and could be referred to as the worst crisis since the Great Depression. Fortunately, in sharp contrast to the experience during the Great Depression, the severity of the crisis was recognized early on and, even more important, governments in both advanced and emerging economies have coordinated their policy responses. Governments across the globe have announced various fiscal stimulus packages and huge amounts of liquidity have been injected into the system by central banks. Some countries like South Africa and the PRC have announced mega-stimulus packages that account for around 24.0% and 8% of their respective GDPs.<sup>4</sup> In absolute terms, the US has announced a bailout-cum-stimulus package of worth US\$8.1 trillion. As shown in Table 3, if we add up the stimulus packages of nine selected countries,<sup>5</sup> the combined total comes to around US\$10 trillion, which is roughly 20% of total world GDP. Given these initiatives, it is expected that the global economy will soon turn the corner and the recession will not be as prolonged as it was in 1929.

<sup>4</sup> For details see Kumar et al. (2009).

<sup>5</sup> The countries were selected based on the availability of information and the size of their economy.



**Table 3: Major Fiscal Stimulus in Selected Countries/Economic Regions**

Ser. No	Country Name	Amount, US\$ bn
1	Japan	516.3
2	EU	254.6
3	Australia	7.4
4	PRC	586
5	Republic of Korea	11.3
6	Chile	2
7	Mexico	5.8
8	India	80
9	US	8,410
10	Total	9,873.4

**Source:** Economic Advisory Council (2009), and author's compilation from media sources.

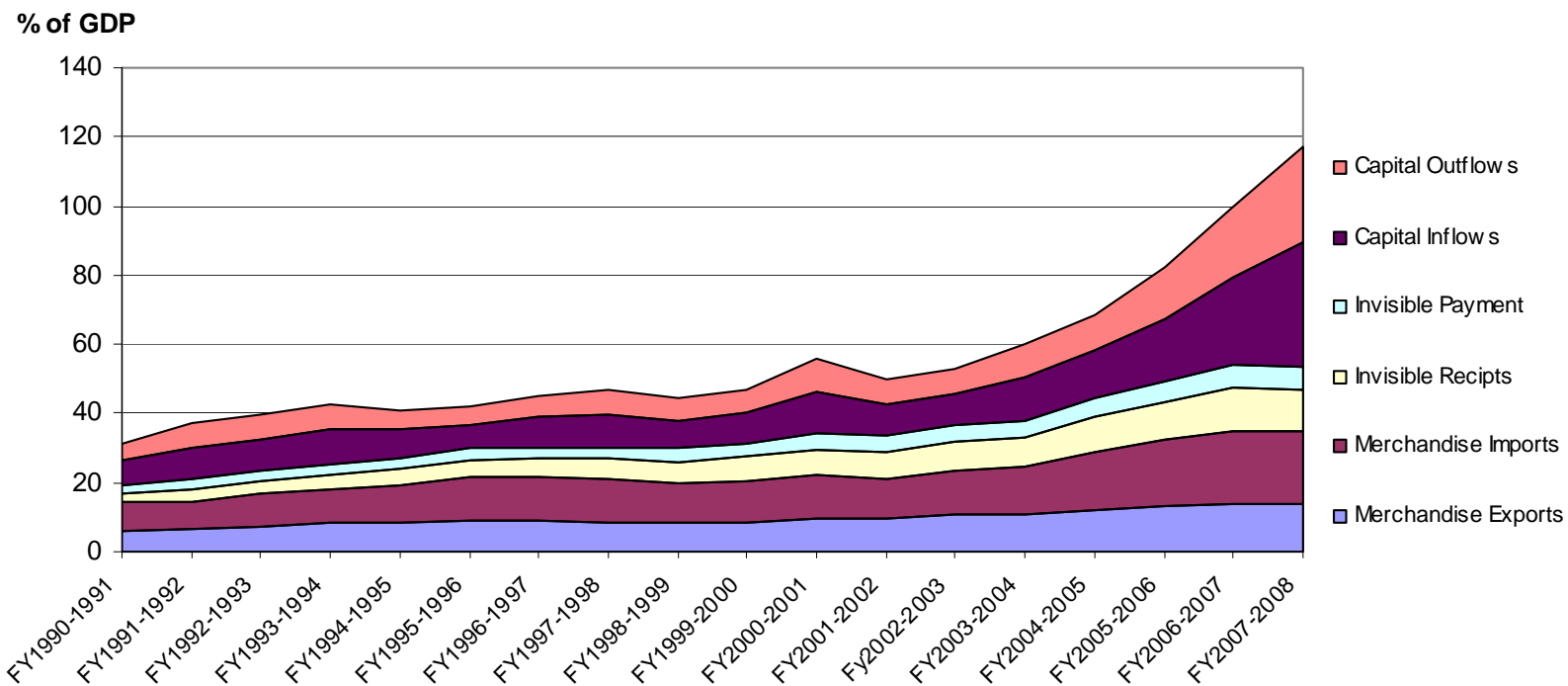
### 3. IMPACT OF CRISIS ON THE INDIAN ECONOMY

#### 3.1 Global Integration of Indian Economy

In response to its balance of payments (BOP) crisis in the early 1990s, India implemented a series of trade, industry, and investment reforms. These reforms effectively liberalized the economy, ending a long period of relative isolation from global markets and financial and technology flows. Since then the Indian economy has become increasingly integrated with the world economy.<sup>6</sup> Consequently, current account flows (receipts and payments of merchandise and invisibles) as a proportion of GDP increased from 20% in FY1990–1991 to 53% in FY2007–2008 (Figure 2). However, the most significant change can be witnessed in the capital account. Due to the rationalization of procedures and conditions for foreign investment, India has emerged as an attractive investment destination. This is reflected as an increase in foreign portfolio investment inflows from US\$2 billion in FY2001–2002 to US\$29 billion in FY2007–2008. Foreign direct investment (FDI) inflows have also gone up significantly in recent years, having risen to US\$34.3 billion in FY2007–2008 from US\$6.1 billion in FY2001–2002. At the same time, Indian corporations have also entered the global market for mergers and acquisitions, resulting in some capital account outflow from India. As a result, two-way flows of portfolio and direct foreign capital have gone up from a mere 12% of GDP in FY1990–1991, to 64% of the GDP in FY2007–2008, registering a fivefold increase. Interestingly, these ratios are significantly higher than those in the US, for which trade in goods and services constituted only 41% of GDP in 2007 and capital flows another 25% in the same year.

<sup>6</sup> The peak import duty on manufactured products was slashed from more than 200% in FY1990–1991 to about 10% in FY2007–2008. Quantitative restrictions on imports have also been gradually phased out.

**Figure 2: Deepening Global Linkages**



Source: Author's calculations compiled from Reserve Bank of India (2009b).

### 3.2 Transmission of the Crisis to the Indian Economy

With India's increased linkage with the world economy, India could not be expected to remain immune to the global crisis or be decoupled from the global economy. While it is true that the Indian banking sector remained largely unaffected because of its very limited operations outside India or exposure to sub-prime lending by foreign investment banks, the global crisis has affected India through three distinct channels. These channels are financial markets, trade flows, and exchange rates.

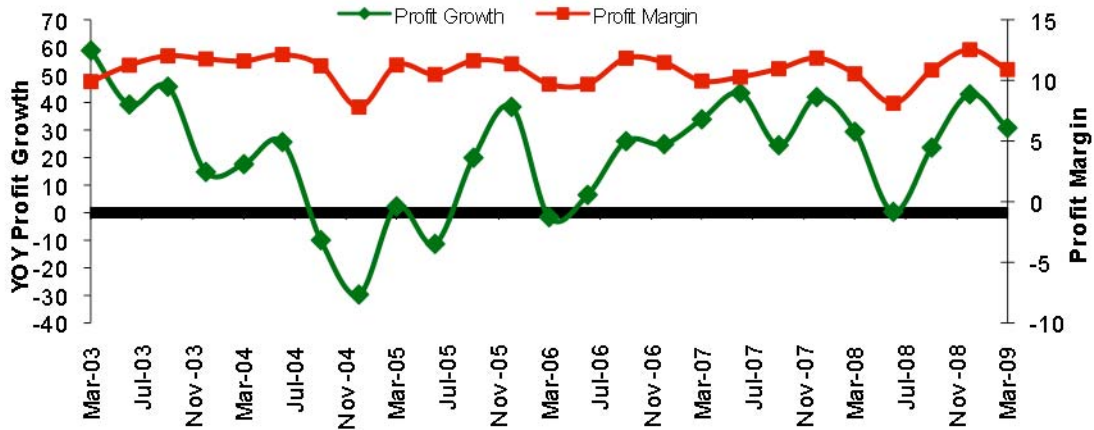
The financial sector includes the banking sector, equity markets (which are directly affected by foreign institutional investment [FII] flows), external commercial borrowings (ECBs) that drive corporate investments, FDI, and remittances. The global crisis had a differentiated impact on these various sub-sectors of the financial sector.

Given prudent regulations and a proactive regulator,<sup>7</sup> the Indian banking sector has remained more or less unaffected, at least directly, by the global crisis. The imposition by the RBI of a higher provisioning requirement on commercial bank lending to the real estate sector helped to curb the growth of a real estate price bubble. This is one of the few global examples of a countercyclical capital provisioning requirement by any central bank. In general, Indian banks were not overly exposed to sub-prime lending. Only one of the larger private sector banks, ICICI Bank, was partly exposed but it managed to thwart a crisis because of its strong balance sheet and timely action by the government, which virtually guaranteed its deposits. The banking sector as a whole has maintained a healthy balance sheet. In fact, during the third quarter of FY2008, which was a nightmare for many big financial institutions around the world, banks in India announced encouraging results. Against an absolute decline in the profitability of non-financial corporate enterprises, the banking sector witnessed a jump of 43% in its profitability (Figure 3). A ban on complex structures like synthetic securitization coupled with a close monitoring of appropriate lending norms by RBI also ensured a better quality of banking assets. The non-performing assets as a ratio to gross advances have remained well within prudential norms (Figure 4). Further, with an average capital risk weighted assets ratio (CRAR) of 13%, Indian banks are well capitalized and better placed to weather the economic downturn.

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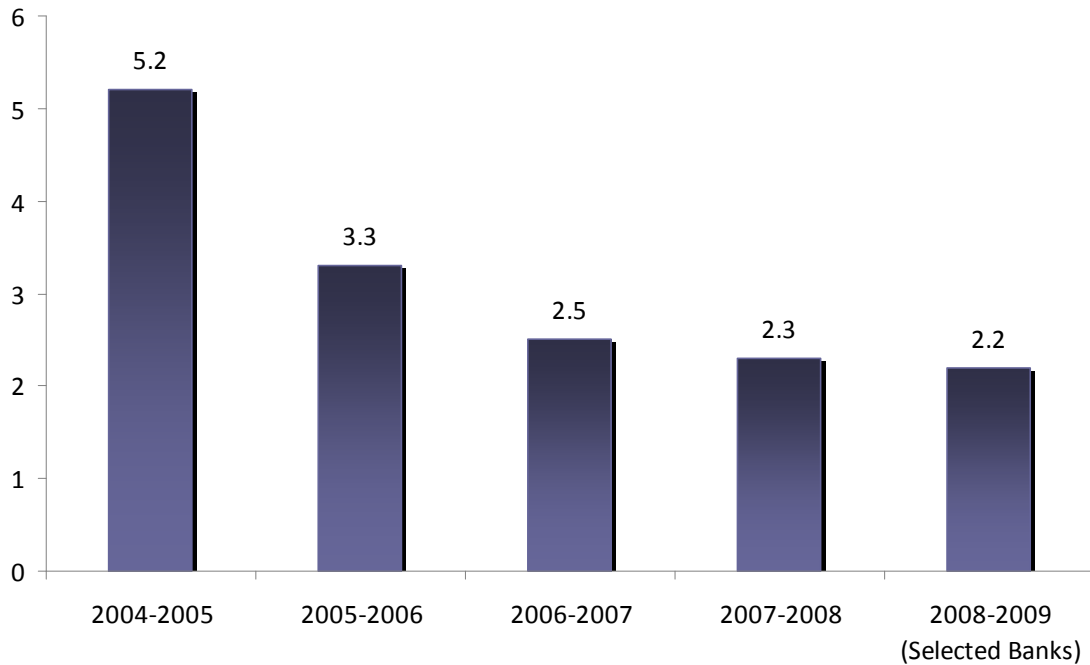
<sup>7</sup> The RBI, under the leadership of Dr. Y. V. Reddy, has acted very proactively many times. In 2006, when land purchases were skyrocketing, he imposed a ban on the use of bank loans for land purchase.

**Figure 3: Quarterly Profit Margin and Profit Growth of the Indian Banking Sector.**



Source: Center for Monitoring Indian Economy (CMIE) Prowess database.  
 Available: <http://www.cmie.com/database/?service=database-products/firm-level-data-services/prowess-corporate-database.htm> (accessed on 20 May 2009).

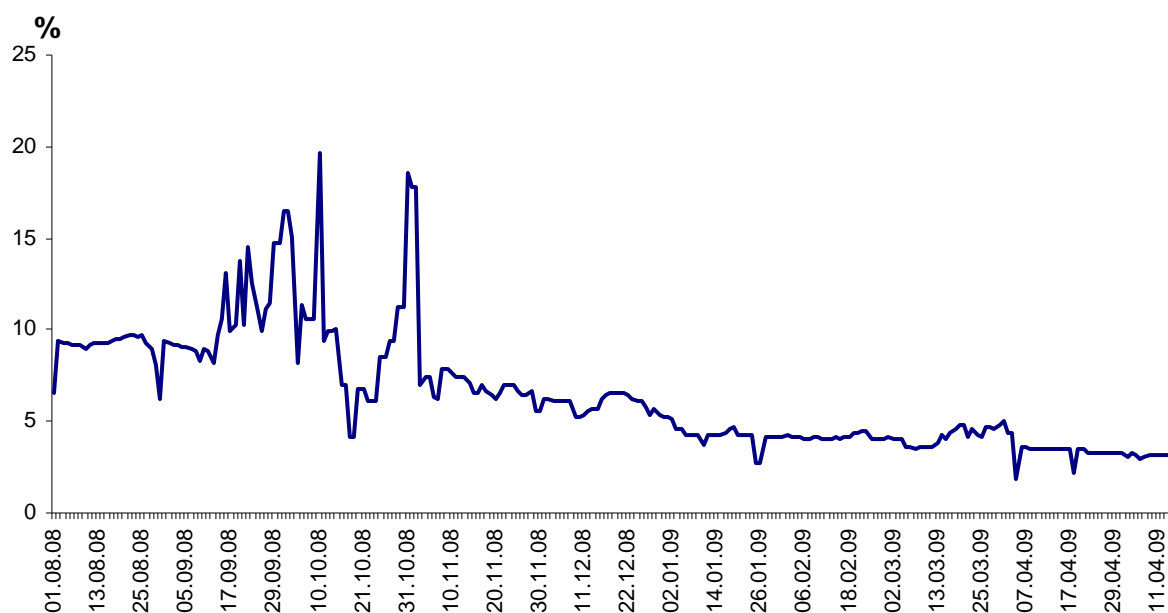
**Figure 4: Non-Performing Assets Percent to Gross Advances**



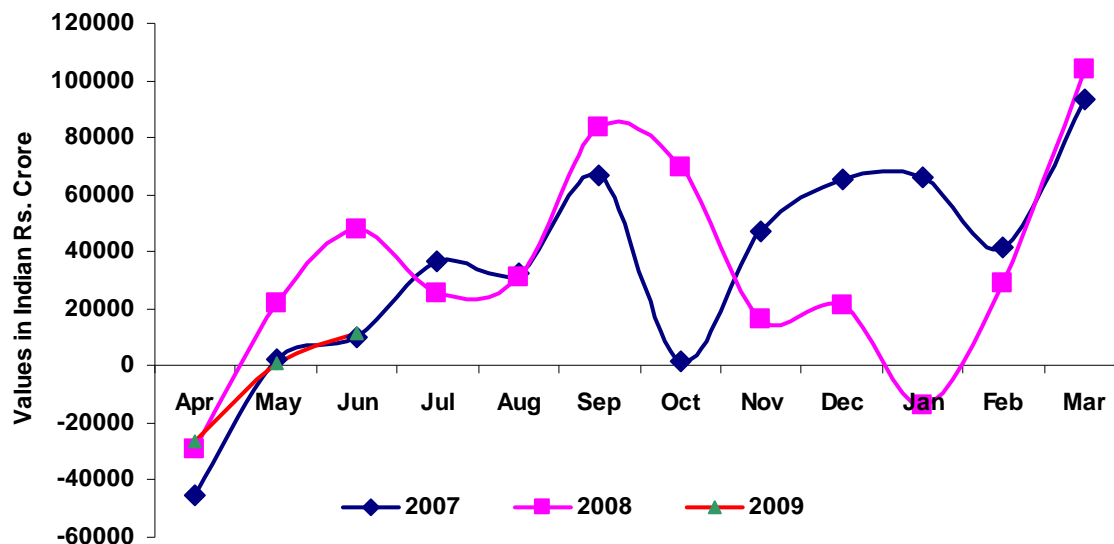
Source: Reserve Bank of India (2008). Available: <http://www.cmie.com/database/?service=database-products/firm-level-data-services/prowess-corporate-database.htm> (accessed on 20 May 2009).

However, the indirect impacts of the crisis have affected Indian banks quite badly. The liquidity squeeze in global markets following the collapse of Lehman Brothers compelled Indian banks and corporations to shift their credit demand from external sources to the domestic banking sector. This move exerted a lot of pressure on liquidity in the domestic market and consequently short-term lending rates shot up abnormally. The inter-bank call money rate spiked to 20% in October 2008 and remained high for the next month (Figure 5). This credit crunch, coupled with the loss of confidence that followed the Lehman Brothers episode, increased the risk aversion of Indian banks and eventually hurt credit expansion in the domestic market. Contrary to the trend, non-food credit expansion started declining in November 2008 and became negative in January 2009 (Figure 6). The magnitude of the impact of the crisis can be understood from the fact that non-food credit expansion during last five months of FY2008–2009 has declined by more than 68% as compared with the same period in previous financial year.

**Figure 5: Daily Weighted Call Money Rate**



Source: Reserve Bank of India (2009a).

**Figure 6: Month-on-Month Change in Outstanding Non-Food Credit**

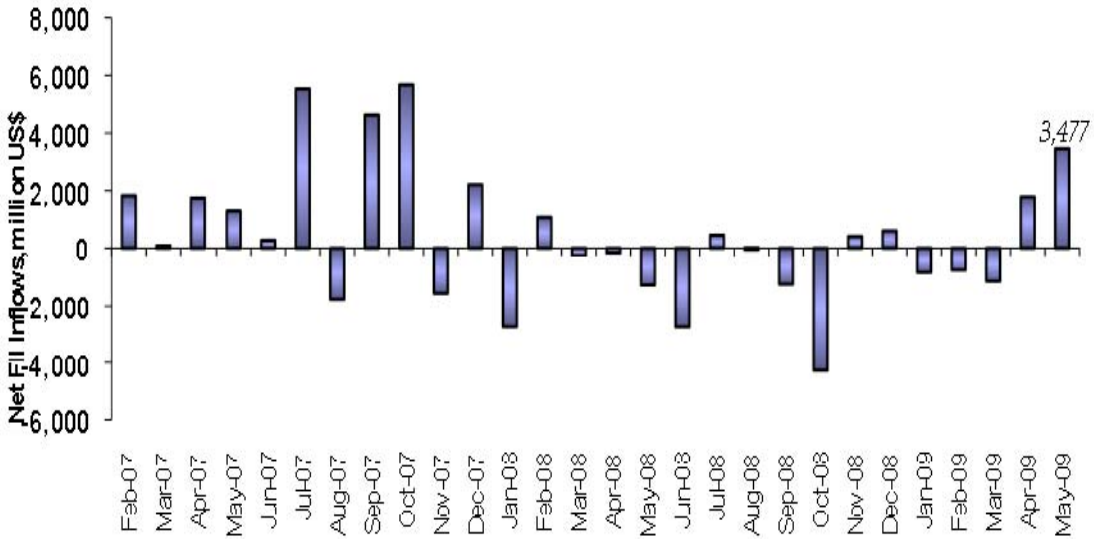
Source: Reserve Bank of India-Weekly Statistical Supplements-Extracts.  
 Available: [http://www.rbi.org.in/scripts/BS\\_ViewWSSExtract.aspx](http://www.rbi.org.in/scripts/BS_ViewWSSExtract.aspx) (accessed 30 June 2009).

After an impressive performance for nearly five years, foreign capital inflows lost their momentum in the second half of 2008. The most significant change was observed in the case of FIIs, which saw a strong reversal of flows. Against a net inflow of US\$20.3 billion in FY2007–2008, there was a net outflow of US\$15 billion from Indian markets during FY2008–2009 as foreign portfolio investors sought safety and mobilized resources to strengthen the balance sheet of their parent companies. This massive outflow of FII created panic in the stock markets. Consequently, equity markets lost more than 60% of their index value and about US\$1.3 trillion of market capitalization from an index peak of about 21,000 in January 2008 to 8,867 by 20 March 2009. This bad run at Dalal Street<sup>8</sup> wiped out the primary market completely, which had been flourishing before the onset of the crisis. Between FY2007–2008 and FY2008–2009, fund collection through the primary market declined by 63%. In 2007, 106 initial public offerings (IPO) were issued and raised a total amount of about US\$11 billion. In contrast, only 38 IPOs were issued in 2008 and resulted in accumulations of only US\$3.8 billion.

Given the presence of unutilized liquidity in the global market, and India being one of the few countries with positive growth, FIIs have once again started flowing back to India (Figure 7). During the first two months of the current financial year (April and May 2009), Indian equity markets received net FII inflows of more than US\$5 billion. Consequently, equity markets have partially gained their lost value. However, owing to prevailing uncertainties, the primary market has still not shown any sign of recovery. Most of the companies have put their IPOs on hold and only one IPO has been issued so far in 2009.

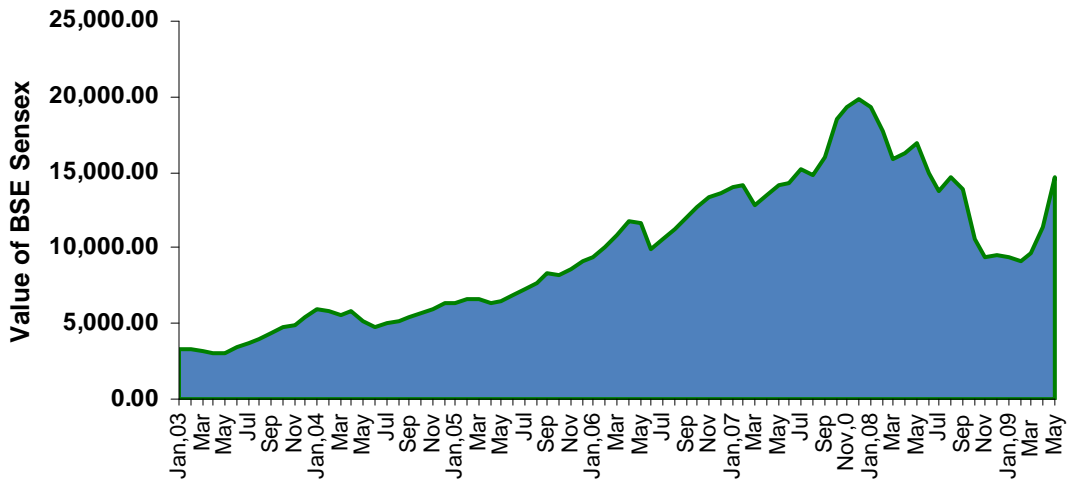
<sup>8</sup> The Bombay stock market is often referred as Dalal Street.

**Figure 7: Monthly Net Foreign Institutional Investment (FII) Inflows**

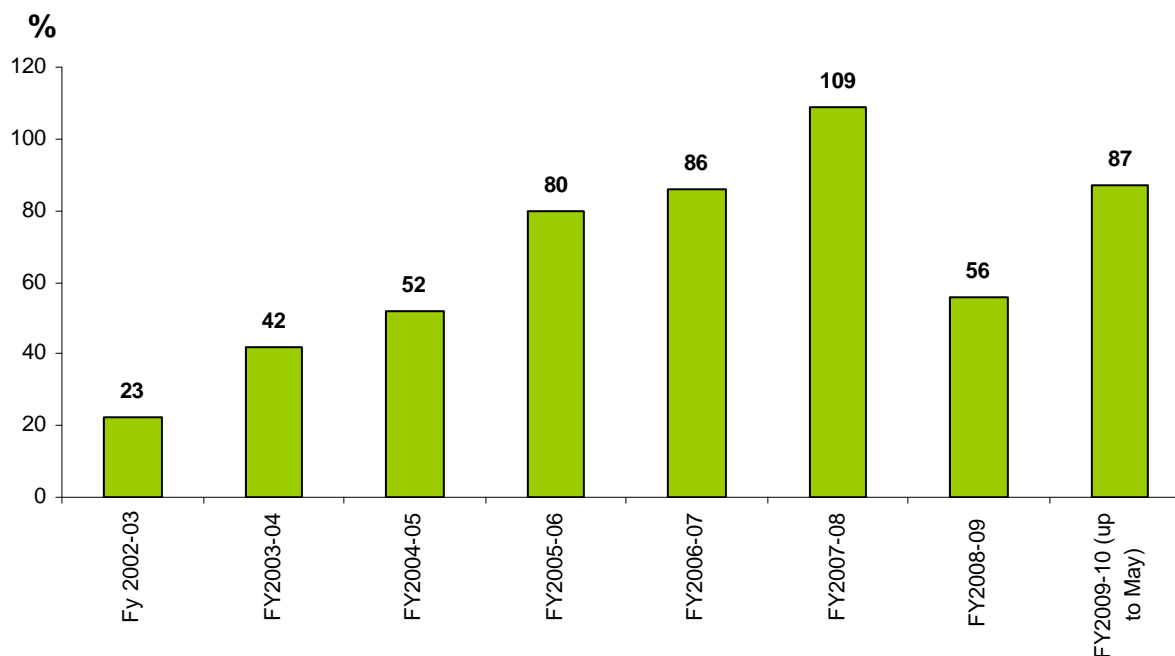


Source: SEBI Bulletin <http://www.sebi.gov.in/Index.jsp?contentDisp=Database> (accessed 30 June 2009).

**Figure 8: Bombay Stock Exchange Sensitive Index (Sensex)**



Source: Historical values for Bombay Stock Exchange indices.  
 Available: <http://www.bseindia.com/histdata/hindices.asp> (accessed 30 May 2009).

**Figure 9: Market Capitalization Percent to GDP**

Source: Author's calculations compiled from Bombay Stock Exchange Key Statistics. Available [http://www.bseindia.com/about/st\\_key/volumeofturnoverbusiness\\_tran.asp](http://www.bseindia.com/about/st_key/volumeofturnoverbusiness_tran.asp) (accessed 30 June 2009) and Central Statistical Organization (2009).

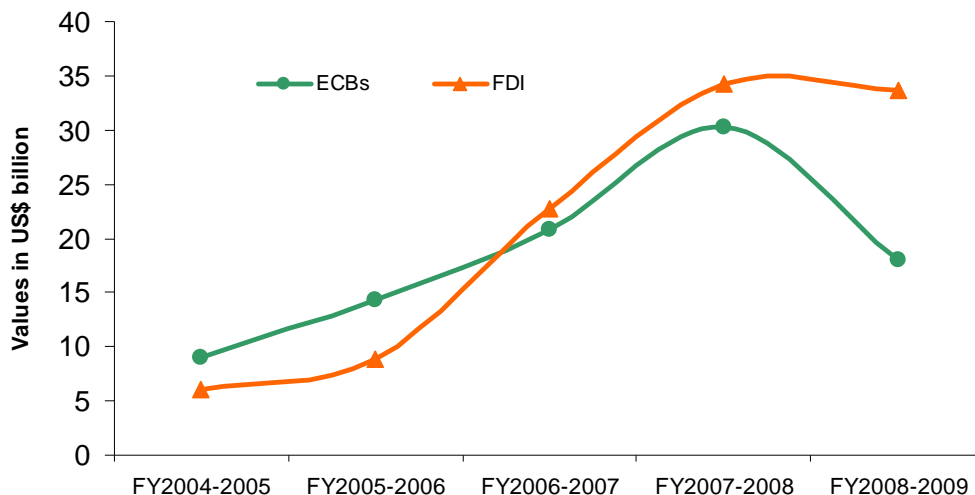
The economic boom in India from FY2004–2005 to FY2007–2008 has also been accompanied by a substantial increase in the inflows of FDI and external commercial borrowings. The inflows of FDI increased from US\$6 billion in FY2004–2005 to US\$34.3 billion in FY2007–2008 (Figure 10). The surge in FDI not only improved the domestic rate of capital formation but also helped many industries improve in a technological capacity due to the technology inflows that accompanied these FDI inflows. Like FDI, the inflows of ECBs also went up from US\$9 billion in FY2004–2005 to US\$30.3 billion in FY2007–2008, registering a threefold increase over four years. The spurt in ECBs benefited Indian entrepreneurs in two different ways. First, it supported them in their overseas mergers and acquisitions, making it easier for them to gain a market presence in target countries. Secondly, the influx of ECBs allowed Indian firms to finance their domestic capacity expansion at relatively lower capital costs.

Both FDI inflows and ECB volumes have been adversely affected by the turmoil in the financial markets in advanced economies. Given the credit crunch in the global markets since September 2008, Indian corporates managed to raise only US\$18 billion in FY2008–2009 as commercial credit from the overseas market, which is 41% less than the amount raised in the previous year. The fall was rather phenomenal during the second half of FY2008–2009 (Figure 11), when ECB approvals<sup>9</sup> declined from US\$3 billion in September 2008 to less than US\$0.5 billion in February 2009. Likewise, though not to the same extent, FDI inflows have also taken a hit. For the first time in last six years, FDI inflows witnessed a negative growth of 2% in FY2008–2009.

<sup>9</sup> Monthly inflows of actual ECB are not available.

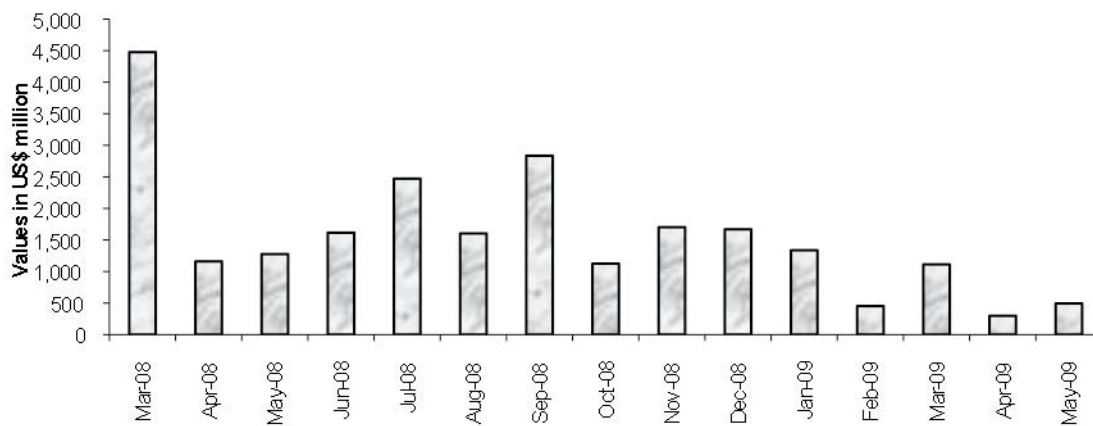


**Figure 10: Annual ECBs and FDI Inflows**



Source: Reserve Bank of India (2009a).

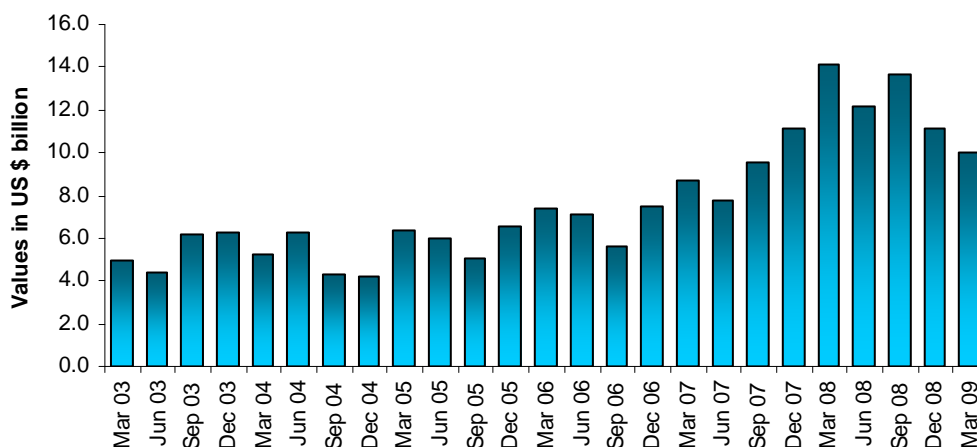
**Figure 11: Monthly External Commercial Borrowing, Approvals**



Source: External Commercial Borrowings, Reserve Bank of India.  
 Available: <http://rbi.org.in/scripts/ECBView.aspx> (accessed 20 June 2009).

Remittances are another source of inward foreign capital flows that in the past have helped to balance India’s large trade account deficit and keep the current account deficit at a reasonable level. The remittances from overseas Indians started feeling the impact of the global crisis during the third quarter of FY2008–2009 when, on a year-on-year basis, they declined by 0.5%. The impact becomes more evident in the fourth quarter of FY2008–2009 when the inflow of remittances declined by more than 29% as compared to the same period in previous year (Figure 12). With the poor economic outlook for oil producing economies in the Gulf and West Asia, coupled with rising pressure against immigration in advanced countries, it is expected that remittances will further decline in the coming quarters.

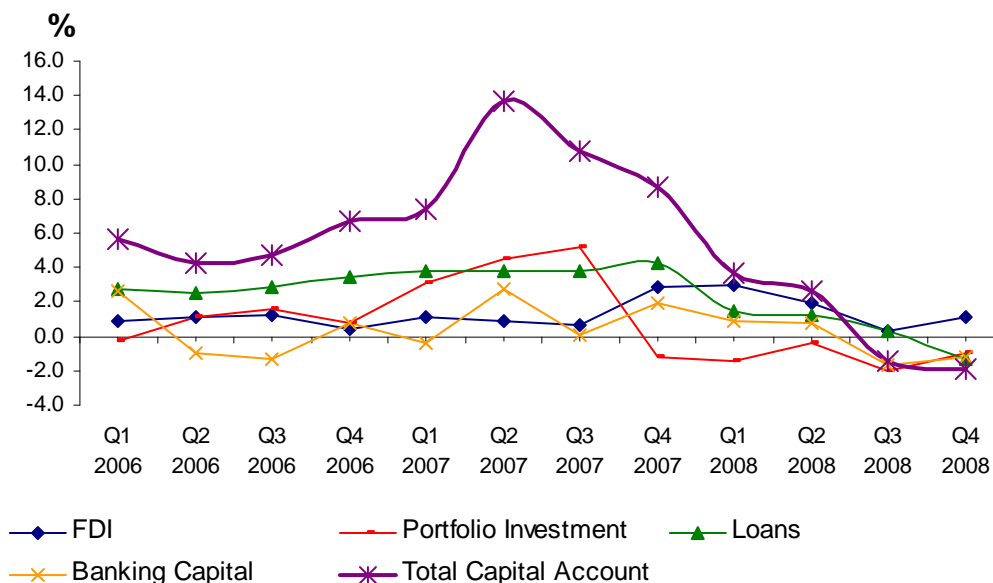
**Figure 12: Quarterly Inflows of Remittances**



Source: Reserve Bank of India (2009c).

The sluggishness of the inflows of FDI, ECBs, and remittances combined with the massive outflow of FII has resulted in the significant deterioration of India’s capital account in FY2008–2009. From its peak in September 2007, the capital account surplus as percent of GDP started to decline and disappeared completely by December 2008 (Figure 13). This is the first time after a long period that the capital account component of India’s BOP has been negative.

**Figure 13: Capital Account BOP % of GDP**



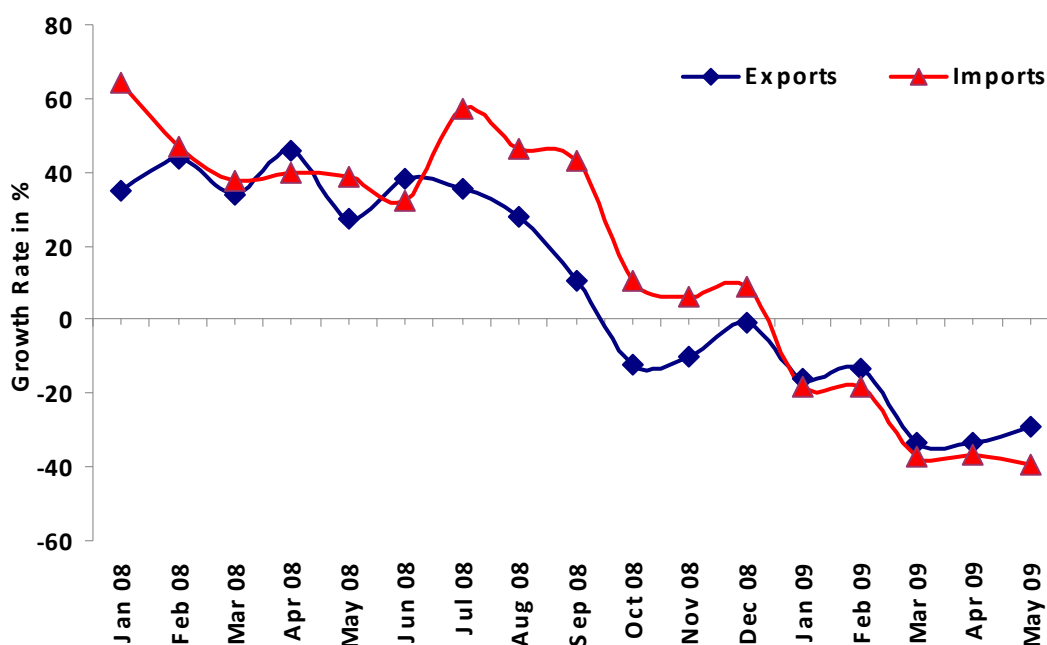
Source: Author’s calculations compiled from Reserve Bank of India (2009c); Central Statistical Organization (2009).

The second transmission of the global downturn to the Indian economy has been through the steep decline in demand for India’s exports in its major markets. Gems and jewelry was the first sector to feel pressure at the very beginning of the global meltdown. In November 2008, it witnessed a sharp decline in export orders from the US and

Europe, which resulted in a retrenchment of more than 300,000 workers. Since then, the negative impact has expanded to other export-oriented sectors such as garments and textiles, leather, handicrafts, marine products, and auto components. Merchandise exports have registered a negative average growth of 17% from October 2008 to May 2009. The decline in exports has been accelerating, falling by 29.2% in May 2009 as compared to the same month in 2008 (Figure 14). In all likelihood, it seems difficult for merchandise exports to recover within this calendar year.

Like merchandise, exports of services are also facing a rather steep downturn. During the third quarter of FY2008–2009, growth in service exports declined to a mere 5.9% as compared to 34.0% in the corresponding period a year back. The earnings from travel, transportation, insurances, and banking services have contracted, while the growth rate of software exports has declined by more than 21 percentage points (Table 4). The real shock came in the fourth quarter of FY2008–2009 when service exports witnessed a contraction of 6.6% as compared to the same period in the previous year.

**Figure 14: Recent Trend in Imports to and Exports from India**



Source: Ministry of Commerce, Government of India (2008–2009).

**Table 4: Quarterly Year-on-Year Growth Rate of Services Exports**

	Q3 2007–08	Q3 2008–09	Q4 2008–09
Services	34.0	5.9	-6.6
Travel	11.6	-13.9	-25.9
Transportation	21.0	-8.1	-7.9
Insurance	19.4	-21.5	-28.5
G.n.i.e.	11.5	7.8	3.8
Miscellaneous, of which	40.9	1.5	-2.1
Software Services	41.3	19.5	-12.7
Business Services	17.4	-12.6	-15.1
Financial Services	34.2	0.8	-13.5

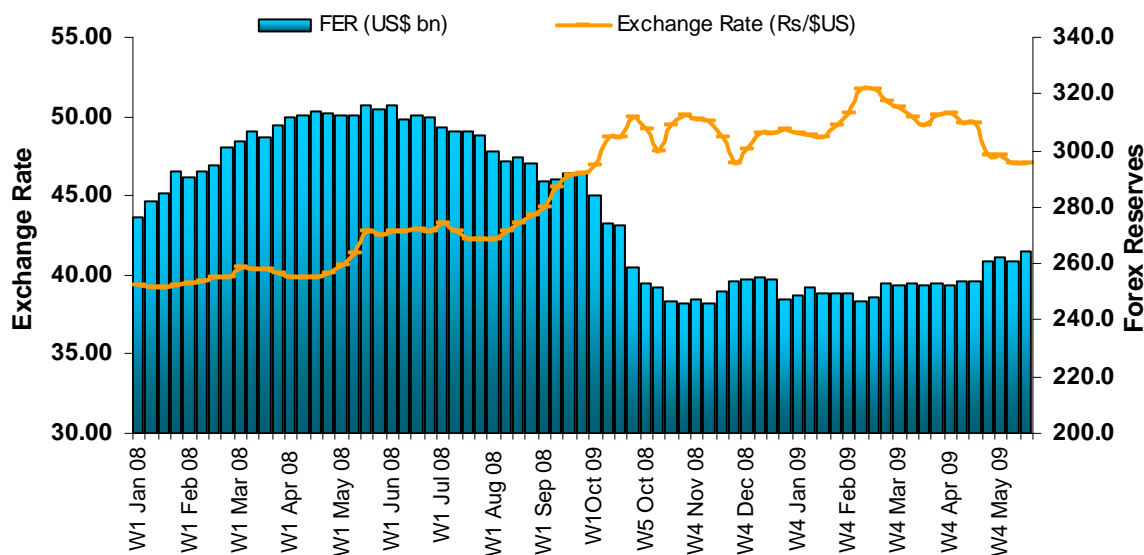
G.n.i.e. = Government not included elsewhere.

Source: Reserve Bank of India (2009c).

Though exports of both goods and services still account for only about 22% of the Indian GDP, their multiplier effect for economic activity is quite large as the import content is not high, unlike Chinese exports. This is reflected in the manufacturing sector output experiencing a sharp slowdown in recent months, during which exports have also shown a decline. The index of manufacturing sector output (Manufacturing IIP), which had grown at 9.6% during FY2007–2008 and by 5.3% in the first half of FY2008–2009, slowed down to 0.5% in the third quarter and further to -0.16% in the fourth quarter of FY2008–2009. Therefore, the export slump is expected to have a significant impact on GDP growth in the coming period.

The third transmission channel is the exchange rate. With the outflow of portfolio investments and higher foreign exchange demand by Indian entrepreneurs who are seeking to replace external commercial borrowing by domestic financing, the Indian rupee has come under pressure. During last 12 months (from April 2008 to March 2009) the Indian rupee has tumbled by 27% vis-à-vis the US dollar. At the same time, foreign exchange reserves have also fallen by US\$60 billion<sup>10</sup> (Figure 15). However, with foreign exchange reserves remaining at 110% of total external debt at the end of December 2008, investment sentiments should not be unduly affected in the near term. The nearly 25% depreciation in the Indian rupee's exchange rate has partially nullified the benefits from the decline in global oil and gas prices and has increased the cost of commercial borrowings. The weaker Indian rupee should, however, encourage exporters and it is possible that with imports declining as sharply as exports that the country's trade deficit may actually improve in the short run. Additionally, the external sector balance may remain stable and not pose any major policy issue.

<sup>10</sup> Here it should be noted that around 63% of decline in foreign exchange reserve can be attributed to valuation, hence the actual decline in reserves is just around US\$20 billion.

**Figure 15: Indian Foreign Exchange Reserves (FER) and Exchange Rate**

Source: Reserve Bank of India-Weekly Statistical Supplements- Extracts.  
 Available: [http://www.rbi.org.in/scripts/BS\\_ViewWSSExtract.aspx](http://www.rbi.org.in/scripts/BS_ViewWSSExtract.aspx) (accessed 30 June 2009)

The timing of the external shock arising from the global economic downturn has been rather unfortunate. The Indian economy was already in the middle of a policy-induced slowdown and the crisis has further aggravated it. The impact of the global crisis on the real economy became evident in the third quarter of FY2008–2009, belying the optimistic official pronouncements and expectations of some economists,<sup>11</sup> when the Indian economy registered a modest growth rate of 5.3%,<sup>12</sup> significantly lower than 8.9% achieved in the corresponding period in FY2007–2008, and after having achieved a 7.8% growth in GDP in the first half of FY2008–2009. At the sectoral level, robust growth in community, social, and personal services (22.5%) and financial, real estate, and business services (8.3%) enabled the services sector to maintain healthy growth despite the sharp decline in trade, hotel, transportation, and communication services. The secondary sector in general and the manufacturing sector in particular performed extremely badly. In the wake of a decline in domestic and export demand, the manufacturing sector witnessed a moderate growth of 0.9%, while growth in construction slowed down significantly from 9.7% to 4.2%.

However, estimates for economic growth in the final quarter of FY2008–2009 (from January to March 2009) have pegged the growth at 5.8% and the full year's GDP growth at 6.7%. These are sharply lower than the average GDP growth of 8.9% during the previous four years (from FY2004–2005 to FY2007–2008) and also lower than 7.1%, which was the official estimate announced at the time of the interim budget in February 2009. The key question is whether the 5.8% growth in the fourth quarter of FY2008–

<sup>11</sup> Until September 2008, a few economists, along with some forecasting agencies, were projecting a very healthy growth rate for the financial year 2008–09. During a seminar organized by ICRIER on 19 September 2008, Dr. Surjit Bhalla predicted that India would grow by 9.0% while in the same seminar Mahesh Vayas of CMIE projected a growth rate of 9.4%.

<sup>12</sup> Recently the growth rate for third quarter has been revised from 5.3% to 5.8%

2009 already reflects a turnaround in the economy, which may be expected to achieve a higher GDP growth in FY2009–2010 (Table 5).

In our view, this is far too optimistic. The economy will in all likelihood continue on its downward trend in the first half of FY2009–2010 (from April to September 2009) before it recovers in the second half as the impacts of the global crisis on the Indian economy potentially taper off by October 2009. For FY2009–2010 we expect the GDP growth to be about 6.0%, still lower than 6.7% in FY2008–2009. This estimate is based on a model of “leading economic indicators”<sup>13</sup> that is used to forecast the GDP growth and whose estimates are given in Figure 16.

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<sup>13</sup> This has been developed by the macro group in ICRIER. Using the LEI methodology we predicted a growth of GDP at 9.2% for FY2007–2008 in November 2007. Most other agencies had predicted a lower growth rate of 8.5% or below for the same year against the actual growth rate of 9%. Again in FY2008–2009, ICRIER was the first among all Indian forecasting agencies to point out the economic slowdown. Based on our model, we projected a growth rate of 6.3% for FY2008–2009 against the actual figure of 6.7%. For details see Kumar et al. (2009).

**Table 5: Quarterly Estimates of GDP Growth for FY2007–2008 and FY2008–2009**

Industry	FY2007–2008					FY2008–2009				
	Q1	Q2	Q3	Q4	Annual	Q1	Q2	Q3	Q4	Annual
1. Agriculture, Forestry, and Fishing	4.3	3.9	8.1	2.2	4.9	3.0	2.7	-0.8	2.7	1.6
2. Mining and Quarrying	0.1	3.8	4.2	4.7	3.3	4.6	3.7	4.9	1.6	3.6
3. Manufacturing	10	8.2	8.6	6.3	8.2	5.5	5.1	0.9	-1.4	2.4
4. Electricity, Gas, and Water Supply	6.9	5.9	3.8	4.6	5.3	2.7	3.8	3.5	3.6	3.4
5. Construction	11.0	13.4	9.7	6.9	10.1	8.4	9.6	4.2	6.8	7.2
6. Trade, Hotel, Transport, and Communication	13.1	10.9	11.7	13.8	12.4	13.0	12.1	5.9	6.3	9.0
7. Finance, Real Estate, and Business Services	12.6	12.4	11.9	10.3	11.7	6.9	6.4	8.3	9.5	7.8
8. Community, Social, and Personal Services	4.5	7.1	5.5	9.5	6.8	8.2	9	22.5	12.5	13.1
<b>9. GDP</b>	<b>9.2</b>	<b>9</b>	<b>9.3</b>	<b>8.6</b>	<b>9</b>	<b>7.8</b>	<b>7.7</b>	<b>5.8</b>	<b>5.8</b>	<b>6.7</b>

Source: Central Statistical Organization (2009).

## 4. POLICY RESPONSES

### 4.1 Fiscal Stimulus

It should be pointed out that the initial fiscal stimulus was actually provided in the budget for FY2008–2009, announced in February 2008. Electoral considerations made this into an expansionary exercise that included massive increases in public outlays in support of employment guarantee schemes, farm loan waivers, pay commission rewards, and increases in food and fertilizer subsidies. This fiscal expansion is expressed by the revenue deficit increasing from 1.4% of the GDP in FY2007–2008 to 4.3% in FY2008–2009. At the same time the fiscal deficit of the central government increased from 2.7% in FY2007–2008 to 6.1% in FY2008–2009. The expansionary public outlays included some measures that implied a hefty transfer of purchasing power to farmers and to the rural sector in general. These included farm loan waivers, funds allocated to the National Rural Employment Guarantee Program (NREGP), Bharat Nirman (targeted for improving rural infrastructure) Prime Minister's Rural Road Program, and a large increase in subsidies for fertilizers and electricity supplied to the farmers (Table 6). All of these measures were taken because of political considerations and not in response to the global crisis. Nevertheless, they have helped to shore up rural demand for both consumer durables and non-durables. In effect the higher than expected GDP growth rate in both the third and fourth quarters of FY2008–2009 could be attributed to the budgetary splurge announced in February 2008. While this has succeeded in shoring up GDP growth by raising rural demand, it did not leave much fiscal space for the Government of India to respond in any significant manner to counter the impacts of the global downturn.

However, some efforts were still mounted to counter the effects of the global economic slow down. Three fiscal stimulus packages—one each in the months of December, January, and March—were announced. These in aggregate amounted to Rs crore 106,050 or US\$21 billion,<sup>14</sup> which is approximately 2% of the GDP. This can be compared to the 4% of GDP that was provided as stimulus in the FY2008–2009 budget discussed in the paragraph above. The three post-December 2008 stimulus packages mainly are comprised by increased government spending on infrastructure, reduction in indirect taxes, and some assistance for export-oriented industries. In an attempt to boost the infrastructure spending that has been acknowledged as the most effective tool to counter economic downturn, the Government of India has increased its planned spending by US\$4 billion and has also allowed the state governments to borrow an additional amount of US\$6 billion from the market. Apart from this, the India Infrastructure Finance Company Limited (IIFCL), a special purpose vehicle (SPV) established in 2007, has been allowed to issue interest free bonds worth US\$6 billion for refinancing the long-term loans for various infrastructure projects.

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<sup>14</sup> This is the direct fiscal burden of the three fiscal stimuli and does not include the indirect burden.



**Table 6: Budget Outlay on Rural Sector**

Ser. No.	Item	FY2008–2009 (RE)	FY2009–2010 (BE)
1	Bharat Nirman	6.25	8.18
2	NREGA	6.00	6.02
<b>3</b>	<b>Fertilizer Subsidies (a+b+c)</b>	<b>15.17</b>	<b>10.00</b>
	a. Indigenous Urea	3.30	1.72
	b. Imported Urea	2.20	1.56
	c. Concession on Decontrolled Fertilizers	9.67	6.72
4	Farm Loan Waiver	13.06	-
<b>5</b>	<b>Total</b>	<b>40.49</b>	<b>24.20</b>

BE = budget estimates, NREGA = National Rural Employment Guarantee Act, RE = revised estimates.

Source: Ministry of Finance, Government of India (2009).

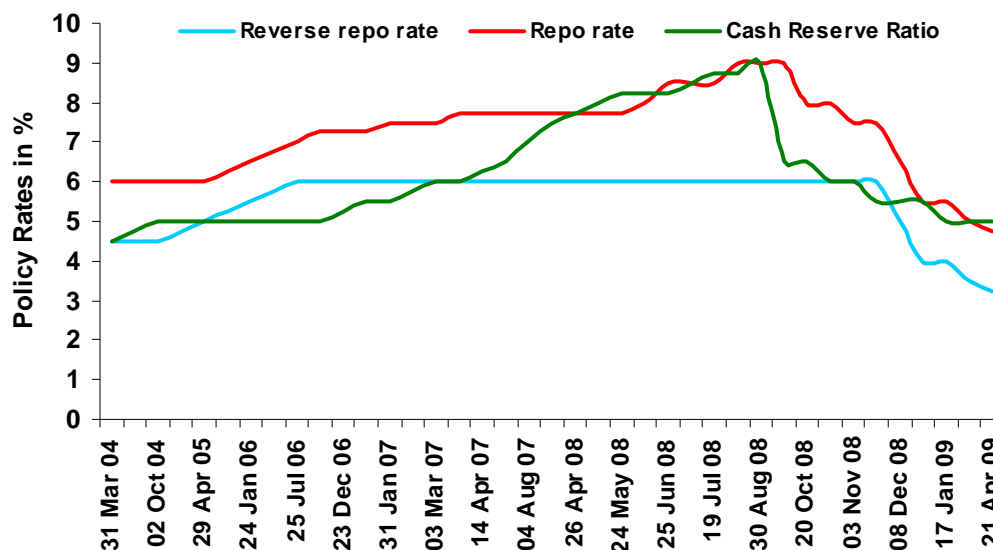
Secondly, to prop up domestic demand the central excise duty was gradually slashed from 14% in December 2008 to 8% in March 2009 on all products except petroleum products. Likewise the services tax rate has also been brought down from 12% to 10%. The government has also provided some relief to export-oriented industries through subsidizing interest costs of exporters by up to 2%, subject to a minimum rate of 7% per annum. It has also allocated US\$240 million for a full refund of terminal excise duty or central sales tax, wherever applicable, and another US\$80 million for various export incentives schemes. The direct fiscal burden of all the aforementioned measures adds up to about 2% of total GDP. This looks rather small in comparison to the size of the stimulus in some other economies like the PRC and the US. However, if we include the stimulus provided in the FY2008–2009 budget, the Indian government has in effect expanded its fiscal outlay by 6% of GDP during FY2008–2009. It can be argued that the economy may have fared better if more fiscal space was available to boost domestic demand to counter the collapse of external demand that started in November 2008.

## 4.2 Monetary Policy Response

With the objective of maintaining price stability alongside a reasonable rate of economic growth, the last two years have been very hectic for policymakers at the RBI. After a comfortable period of low inflation, the Indian economy started feeling the pressure of rising global commodity prices in the first quarter of FY2004–2005. In response to this rise in inflation, the RBI started tightening monetary policy in September 2004, raising the cash reserve ratios from 4.5% to 5.0%. As the inflationary situation worsened in the subsequent period, the tightening of monetary policy became even more aggressive. Consequently, inflation declined from around 8% in the middle of 2004 to less than 4% in September 2007. Nevertheless, coinciding with the rising global inflation trends, domestic inflation once again started increasing towards the end of 2007 and became a major headline in the first week of June 2008 when it entered the double-digit range for first time since the 1991 BOP crisis. It drew a sharp reaction from the RBI and the speed of monetary tightening was further increased. This credit tightening from FY2004–2005 onward ensured a soft landing of Indian

economy, which began overheating over the past three years with the actual growth rate exceeding its potential growth rate. As a result the growth rate began to slow down from the middle of FY2007–2008.

**Figure 16: Monetary Policy Changes, March 2004–January 2009**



Source: Reserve Bank of India (2009e).

In the wake of global financial crisis and its potential adverse effects on the Indian economy, monetary policy shifted gear and became expansionary from October 2008. The rapid decline in Wholesale Price Index (WPI) inflation, which has come down from its peak level of around 13% in August 2008 to less than 1% in April 2009, allowed the RBI to completely shift its focus from inflation to growth. Since October 2008, the RBI has injected a considerable amount of liquidity into the economy through a series of policy rate cuts. The cash reserve ratios of banks has been brought down from 9% to 5%, while the repo rate<sup>15</sup> has been slashed by 425 basis points. Further, in order to discourage the banks from parking overnight funds with the RBI, the reverse repo rate<sup>16</sup> has been gradually reduced from 6.0% in November 2008 to 3.25% in April 2009. The statutory liquidity ratio (SLR) has been lowered by one percentage point. Apart from this, some special refinancing schemes have also been announced to improve the liquidity for certain sectors (Table 7). The cash reserve ratios reduction of 400 basis points since September 2008 alone has led to an injection of US\$32.7 billion. In addition, another sum of US\$12.9 billion has been injected through unwinding the market stabilization scheme. As of April 2009, a cumulative amount of nearly US\$80 billion has been pumped in to the system (RBI 2009d).

<sup>15</sup> The repo rate is a rate at which the RBI offers overnight liquidity to banks.

<sup>16</sup> The reverse repo rate is the rate that RBI pays on overnight funds deposited with it.

**Table 7: Actual/Potential Release of Primary Liquidity Since Mid-September 2008**

1	CRR Reduction	32.7
2	MSS Unwinding	12.9
3	Term Repo Facility	12.2
4	Increase in Export Credit Refinance	5.2
5	Special Refinance Facility for SCBs (Non-RRB)	7.9
6	Refinance Facility for SIDBI/NHB/EXIM Bank	3.3
7	Liquidity Facility for NBFCs through SPV	5.1
Total (1 to 7)		79.2
Memo: SLR Reduction		8.2

CRR = cash reserve ratios, EXIM = export import, MSS = market stabilization scheme, NBFCs = non-banking financial companies, NHB = national housing bank, RRB = regional rural banks, SCBs = scheduled commercial banks, SIDBI = small industries development bank of India SLR = statutory liquidity ratio, SPV = special purpose vehicle.

**Note:** Values are in US\$ billion.

**Source:** Compiled from Reserve Bank of India (2009d).

As a result of the policy rate cuts, the prime lending rates of commercial banks have come down from 13.75–14.0% in October 2008 to 12.0–12.5% January 2009. The call money rates have also remained stable at low levels and the overnight money market rate has remained within the liquidity adjustment-facility corridor.

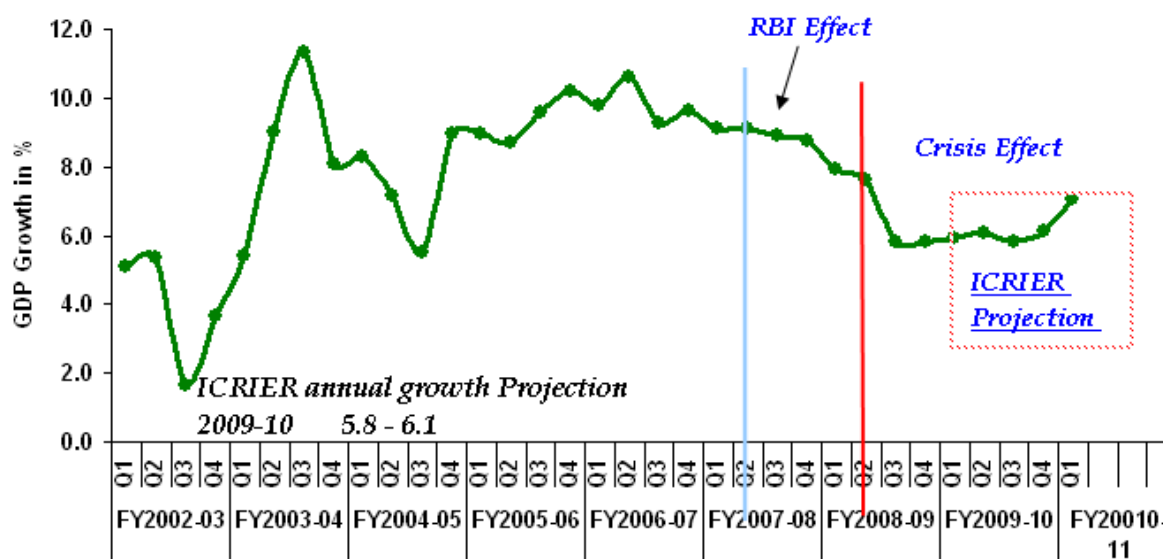
Apart from the above-mentioned initiatives, the RBI has also liberalized the ECBs and FII related norms. To attract the foreign portfolio investors, the FII limit on corporate bonds has been increased from US\$6 billion to US\$15 billion. At the same time, in an attempt to boost the construction sector, developers have been permitted to raise ECBs for integrated townships projects, while NBFCs dealing exclusively with infrastructure financing have also been allowed to access ECBs from multilateral or bilateral financial institutions.

It could be argued that the three fiscal stimulus packages, in conjunction with the transfer of purchasing power to the rural economy through increased budget outlays on the rural sector and the hike in minimum support prices of various crops, have saved aggregate demand and prevented GDP growth from plummeting in to negative territory. This has also been helped by the quick monetary policy response discussed above. In fact, in hindsight, our shock-augmented leading indicator model that some experts at ICRIER have been using to forecast GDP growth for India<sup>17</sup> verifies this hypothesis. With the full impact of the external shock, we were expecting a growth rate of 5.3% in the fourth quarter of FY2008–2009. Nevertheless, with an actual growth rate of 5.8%, our calculation suggests that the fiscal stimulus has neutralized nearly 20% of the impact of the external shock. If we go with this line of argument, it seems that the growth will pickup marginally in the coming quarters because the monetary policy measures taken so far are expected to come in to play. Despite this, any hope for a major revival of economic growth in FY2009–2010 looks unrealistic as the positive impact of fiscal measures, such as the implementation of 6<sup>th</sup> Pay Commission, is bound to taper off. According to our revised forecast, in a best-case scenario GDP would grow by 6.0% in FY2009–2010 while in the worst-case scenario it would only manage a growth rate of 5.0%. Other agencies like the IMF, World Bank, and ADB have also estimated Indian GDP growth in FY2009–2010 at similar levels in their latest forecasts released in March 2009. Thus, the Indian economy will come down from the 9.0% level that it had

<sup>17</sup> For details see Kumar et al. (2009).

achieved in the last four years to 6.0–6.5%. The growth targets for the XI Plan<sup>18</sup> will also have to be lowered.

**Figure 17: Actual and Forecasted Quarterly GDP Growth**



Source: Central Statistical Organization (2009) and author's own estimates.

## 5. ASSESSMENT OF THE POLICY RESPONSES

The Indian fiscal policy response to the crisis can at best be summarized as having been preempted by political considerations that resulted in a fiscal expansion ahead of the global crisis and left only limited space to respond in the aftermath of the crisis. Hence the fiscal response after December 2008 could be argued to not have been as large as required.<sup>19</sup> Given a high fiscal deficit (central and state combined) of 5.4% in FY2007–2008, India had limited fiscal maneuverability to begin with. However, due to electoral considerations a fiscal stimulus of nearly 4% of GDP was induced in the FY2008–2009 budget. This raised the combined fiscal deficit to about 10%, leaving barely any more for further fiscal stimulus after the crisis.

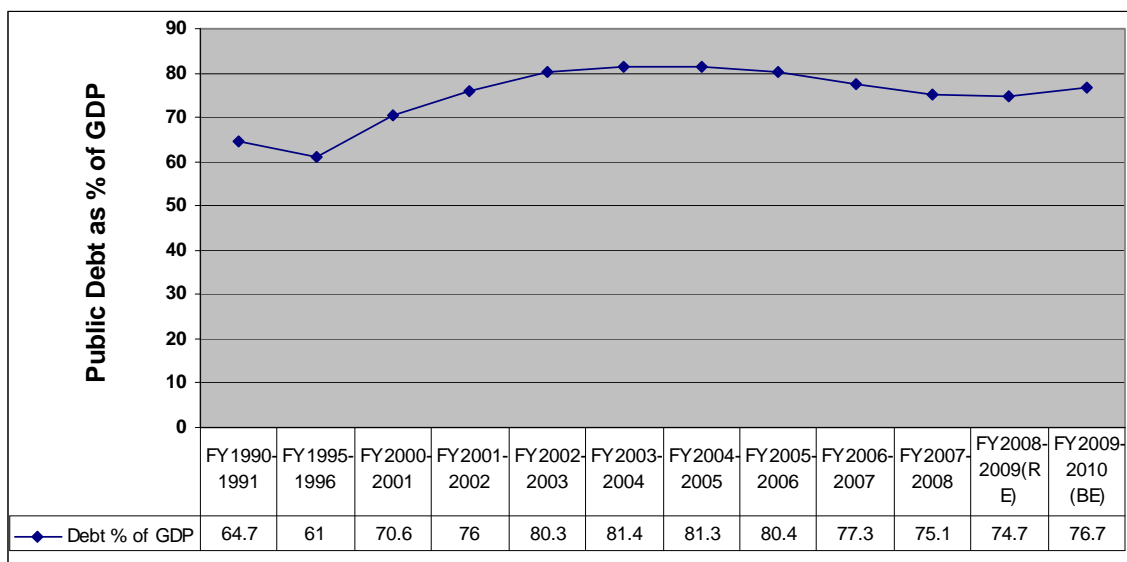
The fiscal stimulus, though very small in size as compared to other countries, worsened the fiscal deficit further, increasing it to 11.4% in FY2008–2009. The increase in fiscal deficit had two implications. First, it drew a strong response from international credit rating agencies and the sovereign credit rating of India was in the danger of being lowered. Any further reduction in India's credit rating could have serious implications for capital inflows. Secondly, the high fiscal deficit naturally led to an increase in government borrowings. Higher government borrowing also put a lot of pressure on the interest rate, as reflected in the 10-year bond yield rate going up along with the announcement of the new stimulus packages. The long run interest rate increase could have serious implications for private investment. The debt to GDP ratio was around 75% in FY2008–2009 (Figure 18). The rise in public debt

<sup>18</sup> The Indian government formulates a blue print of economic activities for five years in advance. This blueprint is popularly known as a five-year plan. So far 10 five-year plans have been completed and the XI plan is under implementation.

<sup>19</sup> It is argued by some observers that the policy response was delayed because the government was initially somewhat in a state of denial, believing that the global crisis would not affect the Indian economy as its banking sector was not at all affected. It was argued that the net contribution of trade to GDP growth is negative and hence the turmoil in the global market would not have any major impact on India. However, a sharp deterioration in some key sectors came as an eye opener for the government and it finally started responding to the crisis in December 2008.

to GDP ratio can be worrisome as it is now well above levels reached in 1991 when the country faced a major crisis. However, the present situation is not as serious primarily due to the strong external sector balance that India has been successful in building up since the beginning of this decade.

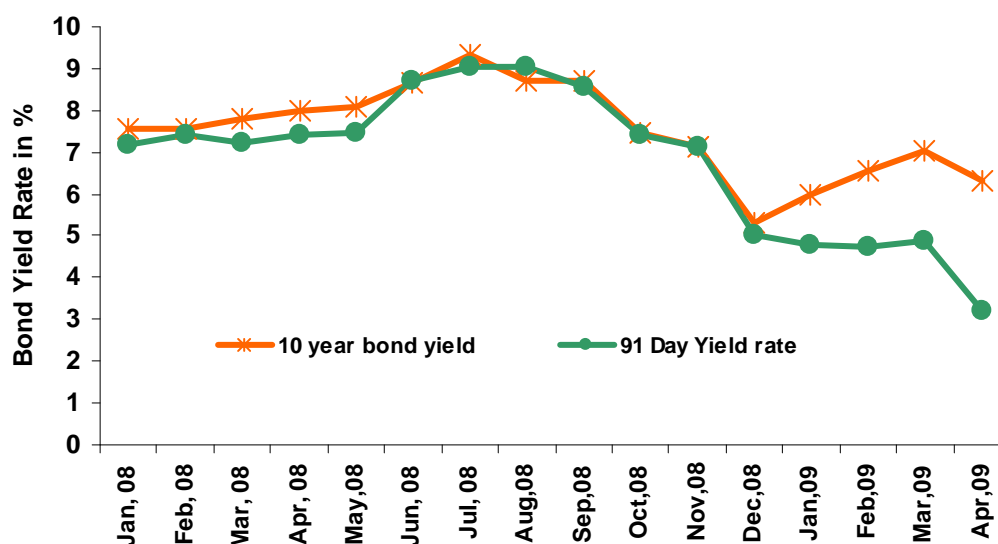
**Figure 18: Trends in Debt to GDP Ratio, Central and State Combined**



BE = budget estimates, RE = revised estimates.

Source: Author's calculations compiled from Reserve Bank of India 2009f

**Figure 19: Trends in Short Term and Long Term Interest Rates**



Source: Reserve Bank of India 2009a.

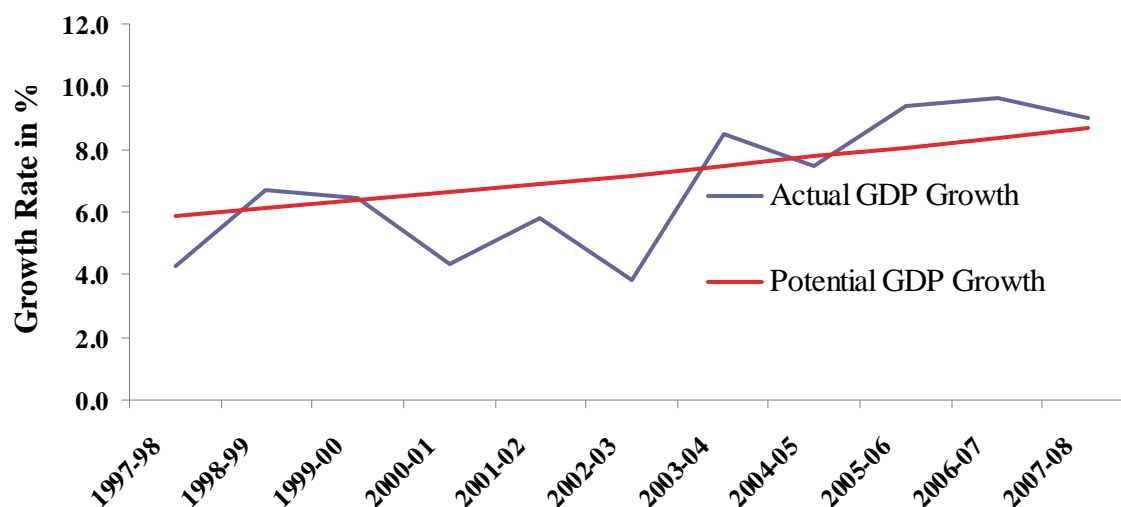
In sharp contrast to the fiscal policy response, the monetary authorities in India acted aggressively once it was clear that inflationary pressures had subsided and growth was beginning to slacken. Unfortunately, because of the government's large borrowing requirement and the stickiness in deposit rates that keep the cost of funds high for the banks, the policy rate cuts have not filtered into the retail credit market. The commercial

bank's lending rates, in real terms despite some reduction, are still very high and banks are not able to push up credit off-take. This is reflected in the continued decline in the growth of non-food credit off-take from commercial banks in recent months. The positive impact of monetary policy actions has therefore been somewhat limited.

## **6. POTENTIAL POLICY MEASURES TO REIGNITE GROWTH**

There is not much room for further fiscal policy action as the consolidated fiscal deficit of the central and state governments in FY2008–2009 is already approximately 11% of the GDP. The budget for FY2009–2010, presented on 6 July 2009, estimates the fiscal deficit in FY2009–2010 to be at the same level. This implies a significant increase in government borrowing, which has risen from Rs 126,912 crore (US\$25.3 billion) in FY2007–2008 to Rs 326,515 crore (US\$65.3 billion) in FY2008–2009 and is likely to be Rs 400,996 crore (US\$80.1 billion) in FY2009–2010. This also implies a further rise in the debt to GDP ratio, which is expected to go up to 77% and may induce credit rating agencies to review their rating of Indian sovereign debt. Debt servicing, which accounted for about 58% of total revenue receipts in FY2008–2009, is likely to rise even further and pose a significant risk. This large volume of government borrowing is bound to exert a significant upward pressure on market interest rates and also result in inflationary pressures, especially if agriculture output is adversely affected by deficient monsoons. Monetary policy will therefore face tough questions in the coming months. On the one hand it will be trying to hold interest rates down to stimulate private investment demand. On the other hand, it will have to keep a very careful eye on any inflationary tendencies and act quickly to restrain them.

With very limited fiscal maneuverability and the monetary policy constrained by the trade off between holding down interest rates and preventing inflationary tendencies, the focus of policy measures must be to further raise India's potential output growth rate. Various agencies have set the target growth rate between 8.5–9.0%, as shown in the chart below. Raising the potential growth rate requires another round of structural reforms that will improve the investment climate, especially for small and medium enterprises (SMEs) that have suffered the most with the collapse of external demand and employ the majority of the work force. SMEs currently suffer from having to face a plethora of official procedures and licensing and regulatory requirements that raise their transactions costs significantly, making them uncompetitive in global markets and unable to withstand import competition in domestic markets. The government will do well to review all the policies that have an impact on "doing business" in India with the clear objective of improving the investment climate. The evidence for this will be best reflected in an improvement in India's rankings in the World Bank surveys in the coming year.

**Figure 20 Potential GDP Growth and Output Gap<sup>20</sup>**

Source: Authors' own calculation.

Other areas for policy attention that will help in removing some of the remaining structural bottlenecks on raising the potential GDP growth rate are the removal of entry barriers for corporate investment in education and vocational training, improving the delivery of public goods and services, and expanding physical infrastructure capacities, including a major effort at improving connectivity in the rural regions. These measures will constitute the second generation of structural reforms and will enable the Indian economy to climb out of the downward phase of the growth cycle and then to extend the upward phase for a longer period than was achieved in the last cycle. The two other areas that require attention and have been often discussed are an urgent improvement in the physical infrastructure and the delivery of public services, specifically urban utilities and law and order. Attention on these reforms will be far more effective and have a more permanent positive impact on raising India's potential rate of growth, which is essential if India is to achieve its goals of poverty reduction and rapid and sustainable growth to improve the overall welfare level of its people.

<sup>20</sup> HP filter technique has been used to calculate the potential GDP growth and output gap.

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