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Managing Finance in Emerging Economies: The Case of India

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ABSTRACT

India has been experiencing rising inflows of overseas capital since the deregulation of its financial sector. Often looked upon as a success story among other emerging economies, the country has been subject to pitfalls and trilemmas that deserve attention. It has been officially recognized by the Governors of RBI that the financial crisis in India reflects the "dirty face" of what is described in the literature as the impossible trinity, along with the volatility in the markets that was caused by speculative capital in search of profits. However, Joseph Stiglitz observed that India's policymakers, "particularly the Reserve Bank of India, are already doing a great job. I wish the U.S. Federal Reserve displayed the same understanding of the role of regulation that the RBI has done, at least so far." Recently, the United States made a path-breaking move with the launching of the recent bill on the regulation of Wall Street, which was passed by a majority of the Senate on May 20, 2010. We urge the implementation of similar laws in India and other emerging economies, especially in view of the fact that the recent moves for financial deregulation in these countries have, rather, been in the opposite direction.

Keywords: Money Market; Speculation; Derivatives; Financial Liberalization; Futures Markets

JEL Classifications: G15, E51, E52

Like a few other developing nations that are identified as “emerging economies,” India has been experiencing rising inflows of overseas capital since the gradual deregulation of its financial sector, which started in the early 1990s. Unlike what is claimed by those who abide by the neo-liberal norms of “efficiency” in deregulated financial markets, what is being experienced by these emerging economies in reality is ridden with pitfalls, trade-offs, and trilemmas that come in the process causing a lot of concern. We propose to have a fresh look at the related issues for India, a country often looked upon as a “success story” by many (Stiglitz 2010a), not only in the context of the country’s financial management policies during the Asian crisis, but even in terms of the handling of the current global crisis. Contesting such claims, we would report in this paper the traps and pitfalls encountered by the country in implementing such policies, a matter that deserves attention.

The paper has four major sections, followed by one that offers the conclusion. Section I deals with the pattern of India’s integration with the global financial market since 1991, tracing back the policy changes that initiated this process. Section II dwells on the hurdles faced in the management of India’s financial sector, in particular, with the following as competing demands:

a) maintaining price stability by using controls on domestic monetary policy;
b) achieving competitive real exchange rates; and
c) ensuring uninterrupted flows of capital from abroad.

The three issues, often identified as “impossible trinity” in the literature (Lemgruber 2008), question the feasibility of achieving domestic targets in monetary and exchange rate policies, along with maintaining free capital flows to/from abroad. Section III of the paper brings up two other concerns that are hardly noticed. These include:

a) the fiscal implications of monetary management, which inflict social costs to the economy; and
b) financialization in deregulated markets, as it spills over to commodity markets with futures trading.

As for the first, efforts on the part of the government to sterilize the cash inflows (caused by the rising capital inflows) led to the sale of government bonds. The latter, in turn, tends to

inflate the interest burden in the fiscal budget. With fiscal deficit as a proportion of GDP subject to compression in terms of the ongoing official Fiscal Responsibility and Budget Management Act (FRBMA), the primary deficit shrinks proportionately, given that it is even less than the fiscal deficit. [1] With defense expenditure subject to strategic concerns, the end result is one where cuts take place in the other two components of expenditure in the primary budget, which include capital expenditure and subsidies. The social consequences of the above are no less a cause of concern than those arising from financial crisis and lack of stability. As for financialization, we draw attention to speculation, not only in equity market, but also in commodities, with futures trading providing further opportunities for profits in the sharp uptrend and fluctuation in commodity prices. Section IV provides a perspective as to how the Indian policy moves are viewed by different commentators. It also provides an account of the current moves and roadblocks in advanced countries in reinstituting regulation in financial markets, problems that incidentally compare with the Indian scene. We end with a concluding note in section V.

I. FINANCIAL DEREGULATION IN INDIA AND LINKS TO GLOBAL FINANCIAL MARKETS

Financial opening was initiated as part of a package of economic reforms launched in India in 1991. This brought an end to a policy regime that had been subject to segregated banking, complimented by manifold restrictions on the flow of overseas capital. Successive reforms, implemented over the next decade and half, introduced several changes in India's financial sector. [2] The more important of those included the following:

a) Free access of FII investments to stock markets since 1992;
b) Bans lifted in 1999 on derivative trading. The latter henceforth were to be treated at par with securities in stock markets, thus ending the restrictions

[1] In terms budget classification in India, Fiscal Deficit = Total Expenditure – Total Receipts = [Revenue Expenditure + Capital Expenditure] – Total Receipts
or, Fiscal Deficit = [Interest Payments + Subsidies + Defense Expenditure + Capital Expenditure] – Total Receipts
Primary Deficit = Fiscal Deficit – Interest Payments = [Subsidies + Defense Expenditure + Capital Expenditure] – Total Receipts

[2] This section relies on an earlier paper by the author (Sen 2008). For an overview, see also Sen (2007).

imposed earlier in terms of the Securities Contract and Regulation Act of 1956. Exchange traded derivative markets were simultaneously opened where options, futures, and swaps on interest rates and currencies could be traded. These transactions were to be regulated by the Securities and Exchange Board of India (SEBI);

(c) The ban on commodity futures was also lifted in 1999, followed by use of "badla" (margin based trading) in 2001;

(d) Over-the-counter (OTC) trading was legalized in 2006, which included interest rate swaps (IRS) and forward rate agreements (FRA), subject to the condition that one of the parties had to be subject to RBI regulation;

(e) IRS and FRAs under the OTC were to be regulated by the Centralised Clearing Corporation of India (CCIL) in 2007, thus providing a Centralised Counterparty (CCP) guarantee;

(f) Reduction of capital requirements for banks up to 80% (and for currency swaps up to 90%), which related to the eliminated counterparty risks as there were earlier on these OTCs. However, credit derivative swaps were not allowed;

(g) Liberalized norms offered to corporate business (and mutual fund) for overseas investments and external commercial borrowings (ECBs);

(h) Exchange traded currency futures allowed in all stock exchanges which included the Multi Commodity Exchange (MCX); and

(i) Futures trade opened for a large number of commodities in commodity exchanges over the next few years.

Successive rounds of liberalization, as above, have changed the pattern as well as the magnitude of turnover in India's financial sector. One thus observes:

(a) increased turnovers in the major secondary stock exchanges, which include the Bombay Stock Exchange (BSE) and the National Stock Exchange (NSE);

(b) volatility in stock turnovers and stock prices;

(c) increased volume of trading of derivatives at stock exchanges, along with increased OTC trading for derivatives;

(d) increased inflows of Foreign Institutional Investments (FII), both on a gross and net basis;

(e) rise in price/earnings (P/E) ratios of stocks traded, often at levels higher than compared to those in overseas stock markets;

(f) value of stocks sold in the primary market at levels much lower than those in the secondary market; and

(g) rising trading activity in the commodity futures market for a large number of commodities.[3]

Observations in this section are based on statistics appended at end to the paper in appendix charts 1–7.

2. MANAGING THE FINANCIAL SECTOR: TRAPS ON WAY?

As has been the case with other emerging economies (which have been exposed to the recent turbulence in global financial markets), cross-border flows of capital, especially short term, have gained a large presence in India's capital market. Unlike what it is with flows of long-term foreign direct investments, short-term capital flows can cause a lot of problems to monetary authorities in achieving the twin goals of managing a competitive real exchange rate along with some degree of autonomy in maintaining monetary policy—especially in catering to the goals set for the real activities in the domestic economy. Goals as above are often difficult to achieve in terms of what has been identified in the related literature as an "impossible trinity."[4]

With large inflows of short-term capital, which have been both unpredictable and large, monetary authorities in India have been active in arresting what they consider as untoward effects of these flows on the money supply or exchange rates. The outcome has been a "stop-and-go" strategy that included the sterilization or injection of funds in the market to arrest the related impact on the money supply. However, policies to deregulate and reform the financial sector, as documented above, initiated large inflows of FII investments. The latter, mostly of the short-term variety, were deployed to trade in India's secondary markets for equities (BSE and

[3] For some details, see Sen and Paul (2010).
[4] For some comments, see Palley (2009), Lemgruber (2008), and Mishra (2007).

NSE). As can be seen from the statistics provided in table 3 and figures 1, 3, 4, 5, 6, and 7 of the appendix, these short-term flows of capital generated both wide swings and spurts for equities and derivatives traded in stock markets. It is noticeable that the boom in the country's stock markets also spilled over to its commodity exchanges (including the MCX), trading in which had official sanction since 2003. Trade in derivatives (especially the currency futures) had a major presence in these transactions, both in stock markets as well as the MCX.

A. Monetary Management in India: 1991–2008

Rising inflows of short-term capital, as mentioned above, had been entering India's financial markets since the early 1990s, a development that prompted the monetary authorities to monitor and take the requisite steps to contain inflation, as well as an appreciation of the real exchange rate. A tight monetary policy was adopted by the country's central bank, RBI, which initiated the Liquidity Adjustment Facility (LAF) in the year 2000. The step provided for RBI's control over liquidity in the market with frequent upward revisions in repo and reverse repo rates[5] as were applicable to commercial banks. Repos were the rates at which banks could refinance against securities used as collaterals with the RBI, and also to park funds with RBI to get back the securities. The opposite was the case with reverse repos, which were used to pay back to RBI. Upward revisions were there in the limits to LAF along with the frequent hikes in repo, as well as reverse repo, rates during the following years, which aimed to curtail excess liquidity in the market. Use also was made of the Monetary Stabilisation Scheme (MSS) with several measures including: (a) a steep rise in cash reserve ratios (CRR) from 4.50% in March 2004 to 9.0% by August 2008; (b) the sale of government bonds to mop-up excess liquidity via open market operations (OMO); and (c) a raise in overnight call rates and cuts in bid-ask spread in

[5] Amongst its many functions, the Reserve Bank of India also acts as the banker of last resort. In this role, the central bank has to ensure that it can inject funds into the system to help participants tide over temporary mismatches of funds. Refinance, as it used to happen earlier, was at a fixed rate that was largely divorced from the cost of equivalent short-term funds in the market. This gave rise to a nonegalitarian distribution of interest rates in the short end of the curve. Further, the amounts that could be borrowed were determined by a preset limit. To do away with the deficiencies, in 2000, the RBI moved to an auction system of repos and reverse repos to suck out from and inject liquidity into the market. The three broad objectives of LAF included: a greater flexibility for the RBI in determining both the quantum of adjustment, as also the rates by responding to the system on a daily basis; to ensure that the injected funds were being used to fund day-to-day liquidity mismatches and not to finance more permanent assets; and finally, to help RBI set a corridor for short-term rates, ideally governed by the reverse-repo (top band) and repo (lower band) rates. This would impart greater stability in the markets. For more information, see www.debtonnet.com.

call rates (Leeladhar 2008). We provide in tables 1–3 of the appendix the details of these measures, as well as their impact on liquidity, according to official estimates.

However, despite these measures, monetary authorities failed to achieve many of their goals. We notice, from available statistics, the upward trend in the real exchange rates of the rupee. Barring one or two years, and notwithstanding the efforts on the part of the RBI to contain those movements by using LAF, MSS, and even direct purchases of a part of the foreign currency inflows (which were absorbed in official reserves), the real exchange rate appreciation has been continuing for the rupee since 1991 (see appendix chart 9). Again, accumulation of official reserves (of foreign exchange), which are part of reserve money, potentially contributed to expansions in the domestic money supply (M_2, as well as M_3), which called for further sterilization. Moreover, selling government securities had to be competitive in the domestic market, thus setting a floor for the interest rate in the market. However, the upward push in interest rate was, to a certain extent, in accord with the dear money policy the RBI was pursuing since the mid-1990s, especially in the context of the surge in forex-led expansion of domestic liquidity, which continued until the onset of the global financial crisis during the third quarter of 2008. With moves as above defying other goals, domestic monetary policy became a captive of external economic developments and far removed from what could otherwise be identified as an autonomous national policy. This defines the "trap" the country has faced in liberalizing the financial sector.

With the successive deregulation of the capital account, which had led to excessive inflows of short-term capital to the country since the early 1990, policies in India to manage the financial sector restrained officials from having full sway over what could be considered as more appropriate from the point of view of domestic output growth, employment, or even distribution of credit.[6] In addition, as already mentioned above, efforts to counter the impact of foreign currency inflows on the exchange rate of the domestic currency also failed to arrest the unwanted appreciations in the real exchange rate that took place over those years, thus undermining the cost competiveness of Indian goods in the domestic, as well as overseas, markets.

[6] Thus the distribution of bank credit in terms of the globalized norms of the risk-adjusted credit under Basel II intensifies financial exclusion, especially for the poor and SMEs in the country. For details, see Gottschalk (2010).

B. Monetary Management in India since the Beginning of Global Crisis in October 2008

We now pay attention to more recent years of monetary management in India, starting from the bankruptcy of Lehman Brothers in the United States in the third quarter of 2008. Policies continued with similar strategies of monetary management as used earlier, but in a reverse gear, using LAF, MSS, and other direct official intervention in the foreign exchange market. With global recession at the corner and dwindling capital flows creating downturns in stock markets, tools as used earlier now moved in the opposite direction, this time to revamp the sagging financial sector. Attempts were also made to arrest the volatility in interest rates, exchange rates, and stock prices, which were rising along with the crisis in the world economy (RBI 2009b and 2010).

One notices that between the third quarter of 2008 (when the crisis in the U.S. housing market was spreading all over) and the quarter ending in March 2010, several regulatory measures were introduced by monetary authorities in India to inject credit (Thorat 2009). Thus the LAF repo rates were sharply downgraded from 9% to 4.25% between October 2008 and June 2009, while the reverse repos were lowered from 6% to 3.25% over the same period. Other measures to ease liquidity in the market included the special 14-day repo facilities with up to $4 billion allowed to mutual funds and banks to use their deposits with the RBI under statutory liquidity ratios (SLR) on a temporary basis. Use was also made of MSS to downgrade CRR and SLR, from 9% and 25% in October 2008 to 5% and 24% in June 2009. (The latter, according to official statement, added $50 billion liquidity in the market). Similar use was made of MSS (in a reverse gear), with the RBI buying back government securities from public. The measures also included:

(a) capping of interest rates applicable to NRI deposits in a bid to discourage their outflow;
(b) direct sales of dollar in the foreign exchange market to arrest untoward depreciation of the rupee;
(c) rupee-dollar swap facilities for banks;
(d) larger limits of remittances up to $100,000 allowed to residents; and
(e) corporate overseas investments up to 300% of their net worth (Reddy 2007; Subramanian 2007). (Details of some of these measures are provided in tables 1–3 of the appendix.)

Measures to steer through the crisis that erupted in 2008 (and even earlier when the country was experiencing the problems caused by excessive inflows of short-term capital) per force had to encounter what is identified in the literature as an "impossible trilemma" (Reddy 2007). Difficulties in achieving the three targets—maintaining monetary autonomy along with exchange rate stability and free capital flows—were officially recognized even before the crisis, with the governor of RBI mentioning "the dirty face of trinity" in 2007! More recently the present RBI chief has come out openly on his concerns for what he observes as "volatility of speculative capital flows in search of profit."[7] Capital flows of late have been far in excess of the current account deficit, thus affecting the stock market, exchange rate, and/or official reserves (Rao 2010), while the additions to reserves are creating the need for monetary sterilization. Policy measures have sought to plug in levers to control "volatility in the debt side of the flows." In our judgment, one cannot expect much of a solution from those measures alone unless these also address the problems with short-term flows of portfolio capital!

On the whole, policies to manage the deregulated financial sector in India have faced hurdles, as was to be expected, with free movements of short-term capital across the board inflicting volatility in the foreign exchange market as well as in stock exchanges. A surge in capital inflows, matched by a current account deficit of smaller magnitudes, spilled over to the entire economy, which started experiencing appreciations in the real exchange rate, a rise in official reserves, and sterilization of liquidity via OMOs, etc. (appendix figures 9–11). With uncertainty in deregulated financial markets, developments as above create further opportunities for speculative profits, often laden with massive investments in derivative instruments (appendix figure 6).[8] The end result is often other than what is desired by the policymakers, a story that reflects the Indian experience.

Summing up, analysis in this section indicates that:

> (a) the nominal exchange rate of the rupee has been volatile with moderate appreciation, and that the real rate has been steadily moving up;

[7] "...India has experienced both 'floods' and 'sudden stops' of capital flows. Net capital flows to India increased from as low as US$7 billion in 1990–91 to US$45 billion in 2006–07, and further to US$107 billion during 2007–08, the year just before the crisis. They dropped to as low as US$7 billion in 2008–09 at the height of the crisis. Capital flows are estimated to have recovered to around US$50 billion in 2009–10" (Rao 2010).

[8] For an elaboration, see Sen (2003 and 2010)

(b) additions to official reserves have continued unabated despite their use in stabilizing the rupee rate with direct interventions in the foreign exchange market;

(c) that FIIs have continued to impact the stock market, both in terms of higher turnover and increased volatility;

(d) the P/E ratios of stocks have moved up accordingly;

(e) attempts to sterilize additions to liquidity in the market by means of LAF as well as MSS contributed to sharp increases in publicly held rupee debt (appendix figures 5,6,7, and 9);

(f) as a result, the rising debt service liabilities tend to preempt other heads of fiscal expenditure in the budget. Sales of government securities on a large scale also crowds out the debt market, often pitching the interest rate higher than what otherwise would have prevailed in the market; and

(g) the financialization process also affects commodity prices, by spilling over to the commodity futures market. The operation of the MCX of India in futures trading on currency, as mentioned above, provides an instance of the interlink between the commodity futures and the stock markets.

We would discuss the two aspects of monetary management mentioned above in the following section, pointing at further problems and dilemmas that remain rather neglected in the literature.

III. MANAGING THE FINANCIAL SECTOR: SOME MORE ISSUES

Financialization of markets, an offshoot of financial deregulation, does not remain confined to financial assets alone, a fact that is evident in the much talked about subprime loan crisis in the housing market of the United States. With channels of speculation opening up for short-term capital, the flows spill over across markets that include financial assets, real estate, and commodity exchanges, along with various types of OTCs.

Financialization today pervades the commodity markets, thus affecting spot and futures trading in commodities (UNCTAD 2009). As held by UNCTAD in its latest *Trade and Development Report* (2009) "…a major new element in commodity trading over the past few

years is the greater presence on commodity futures exchanges of financial investors that treat commodities as an asset class. The fact that these market participants do not trade on the basis of fundamental supply and demand relationships and that they hold, on average, very large positions in commodity markets, implies that they can exert considerable influence on commodity price developments." The report points at the sharp rise in commodity prices between 2002 and mid-2008, which, in turn, have been followed by a reversal at the beginning of the financial crisis. The sequence, as pointed out by UNCTAD, was related to the booming financial market and its crash by October 2008 (UNCTAD 2009: 54). As pointed out, "financialization" also increases price volatility and "…hedging becomes more expensive and perhaps unaffordable for developing country users, as they no longer are able to finance margin calls" (UNCTAD: 74). The argument probably also holds for intracountry futures trade, where use of high margins can deter small traders or even producers, especially in developing countries.[9]

Concerns over rising commodity prices in advanced countries like France have recently prompted the French ministry, led by Cristine Lagarde, to argue for "standardizing the principle of position limits" in "financialized" commodity markets "...not only to prevent market manipulations but also to reduce the macroeconomic, even systemic risks." She also calls for an "…in-depth study on the use of margin call and capital requirement mechanisms as instruments to increase liquidity in the longest terms to maturity on the futures curve." The appeal suggests a new commodity market watchdog similar to the Commodity Futures Trading Commission of the United States (Bloomberg 2010).

A rise in commodity prices and the use of futures and forward trading in global markets have also been prominent in India. Thus one can observe parallel movements in commodity price indices in India and overseas, as reflected in the MXC of India and the international commodity futures exchange (appendix figure 16) (Sen and Paul 2010). The phenomenon seems to have pervaded the Indian commodity market, both by pushing up prices and by linking the commodity market to those for financial stocks, via the portfolio decisions of those who speculate on both. Equity and commodity futures markets often move together, especially as the financiers reallocate their respective portfolios by switching between the markets. In the study

[9] For a recent study that points to the inability of small traders and producers of soybean to gain access to commodity future markets, see Kumar (2010).

mentioned above, we tried to find the relation (Sen and Paul 2010), if any, between movements in the total stock exchange (TSE) turnover and spot-price indices for individual commodities in India (see appendix figures 15 and 16). Our tests of a regression analysis indicate strong negative relation between the two for urad, rice, and wheat, if we consider the period between May 2008 to May 2009. It may be mentioned here that this also covers the period when global stock markets collapsed, affecting the Indian market as well. Redoing the exercise over a longer period from May 2003 to May 2009, during which the stock market was at its boom until the crash began in mid-2008, we got a positive link between the TSE and individual spot prices for the same set of commodities, with TSE regressed on the latter (Sen and Paul 2010). We observe, in appendix figure 15, strong parallels between the monthly vartions in TSE and futures prices, for at least two items (potato and urad) during the first ten months of the fiscal year 2006–07 when both were open to futures trading.[10]

An outcome as above can be related to the observations we made earlier in this paper relating to the "financialization" of the commodity market. Speculation and portfolio adjustments across markets on part of financial agents led, as a contagion, to spurts in commodity markets when the financial market was also at its boom. Thereafter the crash in financial asset prices and in its turnover has led the same agents to look to commodities again as alternative sources of returns on their funds, with investments in commodity futures. The latter, as observed, pushed up the spot prices, implying a betting on rising prices with speculators holding long positions.[11]

With rising food prices, futures markets in agricultural commodities, especially in cereals, pulses, and other essential food items, are currently subject to public debates in India, especially when it relates to the fresh opening of those markets for essential food items that earlier had been delisted. Even international organizations have drawn attention to the pitfalls that lie ahead for countries (including India) in trying to open futures trading in commodities. As held for India by the international think-tank IFPRI, "rising expectations, hoarding, and

[10] Food items that have been traded in future markets of India in recent years include (among others) coffee, barley, ground nuts, sugar, desi, tur, urad, and rice (until January 2007); castor seed, guar gum, gur, jeera, maize, masoor, gram, mustard seed, pepper, oil cake, and soya oil (until January 2008); sugar (until January 2009); and, finally, chili, castor seed, coriander, potato, dhania, and wheat (until now). Futures trading, in earlier months but discontinued now, can still be identifies a factor explaining the current spate of price increases in the commodity markets. Speculation in commodity trading also has been a major component in the OTC trading with forward contracts that, as mentioned earlier, are legalized (Sen and Paul 2010).

[11] Paavo Suni, "Commodity Future Prices as Predictors of Spot Prices" etla.fi/files/1659_SUH_06_2

hysteria played a role in increasing the level and volatility of food prices, as did the flow of speculative capital from financial investors" (IFRI 2009). A similar view was held by the Washington-based Institute of Agriculture and Trade Policy (IATP 2008).

On the whole, official policies in India to manage the surges in speculative short-term capital inflows in the money market have not been able to arrest its spill-over to the commodity market, which continues to provide profits to financiers on futures and forward trading. The end result has been the unrelenting inflation in food prices, which affects the survival of large sections of population in India

We now pay attention to one more effect of deregulation in financial markets, which, as we point out, has often been neglected. The issue relates to interventions of monetary authorities, initially in the forex market (to acquire the additional supply of exchange in order to prevent appreciation of the domestic currency), and later in the domestic money market, to mop up liquidity that may be generated by such additions to high-powered money. The above involves sale of government securities, which, sold at market rates, adds to the interest bill as a fixed charge under the head of the expenditure for the primary budget. With official commitments in India in terms of the Fiscal Responsibility and Budget Management Bill (FRBMB)—which, since the year 2003, limits the size of the fiscal deficit as a proportion of GDP—a rising interest bill can only be met with a cut in other heads of expenditure in the primary budget (it may be recalled here that the primary budget consists of the fiscal budget less expenditure on interest bill). With defense as an inflexible component of official expenditure that has remained at around 9% of revenue expenditure since 2007–08 (Government of India 2010: 49), this meant that cuts on other heads of expenditure in the primary budget had to fall on subsidies and capital expenditure, which are of social concern (see appendix figure 18 for the sequences following capital account convertibility). One can figure out the large proportion of the interest-related payments in nonplan expenditure as compared to subsidies over 2004–05 to 2009–10 (see appendix figure 18). Comparing the ratios, major subsidies fell from 15.6% as proportions of revenue expenditure in 2008–09 to 11.8% in 2009–10. The ratio of aggregate subsidies to GDP has declined from 2.2% in 2008–09 to 1.7% in 2009–10 (Government of India 2010: 50). Comparing the changes in expenditure between 2008–09 (April–December) and 2009–10 (April–December), interest payments have risen by 5.1%, while major subsidies have dropped by 6.3% (Government of India 2010: 54). Accordingly the primary deficit, which measures the excess of aggregate public expenditure (on subsidies, capital expenditure, and

defense) over total public revenue, perforce fell relative to fiscal deficit as proportion of GDP. The more recent moves of the government to come out of the stimulus package that has sustained the fiscal deficit at higher levels over the last two fiscal years may further harden the picture. We provide the figures for the share of the primary as well as the fiscal deficit as proportions of GDP in appendix figure 17. One also gets an idea, in figure 19, of the rising share on interest rate charges and debt servicing as a proportion of nonplan expenditure, especially in contrast to the low share of food subsidies.

Aspects as above deserve attention, and more so because the benefits of financial deregulation remain confined to those who can speculate in markets, while the costs are borne by those who are affected by speculation on commodity prices and cuts in social sector spending by the government, as we point out above.

IV. PERSPECTIVES ON MONETARY MANAGEMENT IN INDIA

Of late, India has been receiving considerable attention as one of the few countries that has managed to successfully withstand the consequences of the latest global crisis. Much of it is attributed to successful management by the country's monetary authorities, and especially by the RBI. Quoting a statement from Joseph Stiglitz, one of the staunch critics of globalization, "...your policymakers, particularly the Reserve Bank of India, are already doing a great job. I wish the U.S. Federal Reserve displayed the same understanding of the role of regulation that the RBI has done, at least so far" (Stiglitz 2010a). He further remarks, "India was one of the countries that resisted the wholesale deregulation movement that the United States had been exporting… They [India] did it against political pressure… and now I think the financial markets are thankful that they did resist those pressures. The result is that India's financial markets are in better shape than they would have been if they had engaged in the kind of wholesale deregulation that the United States engaged in" (Stiglitz 2010b). The argument rests on what he notices as India's ability to continue with regulations in the banking sector, in contrast to the wide-ranging deregulations in the banking sector of the United States (and Europe as well) (Stiglitz 2010a and 2010b).

A rather similar view has recently been aired by Gerald Epstein, another leading critic of the theory behind financial deregulation and its application in the United States and elsewhere. Mentioning the restraints in India on trading of derivatives by banks, Epstein commends the role

of the RBI in monetary management, thus mentioning "... Reddy [the RBI governor] who was the devil… now... has turned a hero who saved the Indian financial system" (Epstein 2010). The observation is based on what Epstein believes as the ability of the RBI, first, to judge the quality of new financial products (derivatives, etc.) in the market and issue approvals solely on that basis, and second, the monitoring by RBI of bank performance while issuing "guidelines and safeguards." At end of the Asian crisis, India's strategy of capital flow management was appreciated as a success story by Epstein, Grabel, and Jomo (2003). However, since then the pace of deregulation in the financial sphere has been much faster and more pervading, a fact that speaks for the discordant notes we have offered in this paper.

In our judgment, observations as above underestimate the potentials of systemic risk and its social cost as are embedded in India's liberalized financial sector. Our analysis of the successive stages in the near-full liberalization of external capital flows and the domestic financial market—with explosion of short-term flows of capital, as are driven by speculation across markets of financial assets and commodities, the wide-ranging use of exchange traded, as well as OTC derivatives, and finally, the incidence of financial liberalization in terms of cuts in social sector spending—all bear testimony to the lack of reality of those positions.

However, one observes an element of unanimity on the volatility aspect of short-term capital flows. Thus, concerns are shared by Stiglitz as he points out that "... this crisis should send three strong messages to India. One, think very carefully about financial market regulation. Full capital market liberalization should clearly be put off. Two, be prepared to take offsetting actions to counter volatility flowing in from abroad. Finally, pursue growth from a diversified economic base, which includes developing countries and your own huge domestic potential" (Stiglitz 2010a). Echoing the same sentiment, Epstein concludes on a discerning note on risky toxic assets, and he points out "...If you cannot figure out how risky the asset is within reasonable limits, do not approve it" (Epstein 2010). It echoes the much-quoted cautionary note from George Soros, the billionaire investor in capital markets who claimed that derivatives (and especially credit-default swaps) are "weapons of mass destruction." The warning, initially put forth in 2003, was recently reiterated by Soros in 2006.[12] Concerns as above on the current volatility of capital flows are also voiced in India, with the present RBI chief publicly acknowledging the dangers of volatile capital flows (Rao 2010), as already mentioned in this

[12] "Soros slams 'instruments of destruction'." CNNMONEY.com June 12, 2009: 6:46 AM ET

paper. Others also come up with anxiety on the volatility aspect of capital flows, especially with crisis in global markets. [13] However, the free flow of capital across and within the country encourages speculation under uncertainty. The latter is bound to generate volatility in financial markets, providing sources of profits under speculation. Thus it requires action that goes beyond words, especially from official agencies, to successfully manage and counter the consequences of excess capital inflows subject to volatility.

We may mention here a path-breaking move in the United States with the recent bill on the regulation of Wall Street that was passed by a majority in the Senate on May 20, 2010. As put by a commentator, "...prodded by national anger at Wall Street, the Senate on Thursday passed the most far-reaching restraints on big banks since the Great Depression" (Kuhnhenn NO DATE). The bill, accepted by the House, will be a landmark victory of regulatory bodies over the free-for-all reign of speculation in the U.S. financial market, by restraining banks from dealing in risky assets and providing a lot of protection to the retail investor or the individual homeowner on mortgages. As put by President Obama, "Over the last year, the financial industry has repeatedly tried to end this reform with hordes of lobbyists and millions of dollars in ads, and when they couldn't kill it they tried to water it down. Today, I think it's fair to say these efforts have failed" (Drawbaugh and Sullivan 2010).

We draw attention to the above step taken by the U.S. administration in order to urge upon a need for similar actions in India and other emerging economies where the recent moves for financial deregulation have been in the opposite direction.

V. CONCLUSION

What can be concluded from our analysis of monetary management since the start of financial deregulation in India? We think it can be summed up in the following six observations and policy conclusions:

a) The extent of monetary management in India has <u>not</u> been in keeping up with the need to control the rising inflows of short-term capital, often led by the FIIs, which destabilizes stock markets and the exchange rate of the domestic currency.

[13] "India's Financial Secret Weapon" Arvind Panagariya, Foreign Policy Magazine <u>www.brookings.edu</u>

b) Net flows of overseas capital, in excess of the sum absorbed to finance the current account deficit, has put upward pressures on the real exchange rate of the rupee. To counter the latter, monetary authorities have been mopping up foreign currency with direct purchases of latter, along with sales of government securities to absorb excess liquidity. Also the exchange, converted to rupees in the domestic market, is sought to be sterilized by sales of government securities to absorb excess liquidity. While purchase of foreign currency contributes to rising official reserves (and thus to high-powered money), it has the potential of adding further to the money supply. As for absorption (or sterilization) of liquidity by selling securities to public, the act adds to the interest bill for the government in its budget, which in turn entails social costs by inducing cuts in public expenditure on social programs and investments, with ongoing restraints on the fiscal deficits.

c) Sterilization of excess liquidity, by means of sales of government securities (or borrowing), to be attractive needs to be offered at interest rates that make them saleable in the credit market. This constrains the national autonomy of authorities to fix interest rates at levels otherwise considered desirable in the interest of real activities.

d) Sterilization by means of adjustments in the repo and reverse repo rates further limits autonomy in monetary policy by pitching the rates as well as the reserve requirements higher/lower according to whether capital inflows are considered to be drying up or excessive. Changes as above are guided by circumstances in global financial markets rather than by domestic exigencies.

e) Monetary management in India has not been able to control the flow of funds to finance derivatives, both exchange traded and OTCs, which also enters the commodity futures and forward markets. As in other countries, commodity markets today are overtly financialized, with free flow of excess short-term funds in search of profit. This entails further social costs, with futures prices pushing up spot prices of commodities in markets for daily necessities.

f) Monetary management has not been able to prevent steady appreciation in the real exchange rate of rupee, a fact that is visible in the appreciation of the real effective exchange rate (REER). This has made Indian goods less competitive in relation to

foreign products, both with exports in overseas markets and with imports in domestic markets.

Concluding, one does not see much logic or an awareness of the social costs in pushing further the agenda of monetary management in the direction of full capital account convertibility in India. To allow the free flow of finance to feed transactions in the country's secondary stock markets, and also to permit the use of derivative instruments to hedge and speculate, has created further space for those who want to use money to make more money while contributing little to growth and stability in the real economy.

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Table: 1 Movement in Repo Rates and Reserve Requirements

(Percent)				
Effective Since	**Reverse Repo Rate**	**Repo Rate**	**Cash Reserve Ratio**	**Statutory Liquidity Ratio**
March 31, 2004	4.50	6.00	4.50	25
September 18, 2004	4.50	6.00	4.75 (+0.25)	25
October 2, 2004	4.50	6.00	5.00 (+0.25)	25
October 27, 2004	4.75 (+0.25)	6.00	5.00	25
April 29, 2005	5.00 (+0.25)	6.00	5.00	25
October 26, 2005	5.25 (+0.25)	6.25 (+0.25)	5.00	25
January 24, 2006	5.50 (+0.25)	6.50 (+0.25)	5.00	25
June 9, 2006	5.75 (+0.25)	6.75 (+0.25)	5.00	25
July 25, 2006	6.00 (+0.25)	7.00 (+0.25)	5.00	25
October 31, 2006	6.00	7.25 (+0.25)	5.00	25
December 23, 2006	6.00	7.25	5.25 (+0.25)	25
January 6, 2007	6.00	7.25	5.50 (+0.25)	25
January 31, 2007	6.00	7.50 (+0.25)	5.50	25
February 17, 2007	6.00	7.5	5.75 (+0.25)	25

March 3, 2007	6.00	7.5	6.00 (+0.25)	25
March 30, 2007	6.00	7.75 (+0.25)	6	25
April 14, 2007	6.00	7.75	6.25 (+0.25)	25
April 28, 2007	6.00	7.75	6.50 (+0.25)	25
August 4, 2007	6.00	7.75	7.00 (+0.50)	25
November 10, 2007	6.00	7.75	7.50 (+0.50)	25
April 26, 2008	6.00	7.75	7.75 (+0.25)	25
May 10, 2008	6.00	7.75	8.00 (+0.25)	25
May 24, 2008	6.00	7.75	8.25 (+0.25)	25
June 11, 2008	6.00	8.00 (+0.25)	8.25	25
June 25, 2008	6.00	8.50 (+0.50)	8.25	25
July 5, 2008	6.00	8.50	8.50 (+0.25)	25
July 19, 2008	6.00	8.50	8.75 (+0.25)	25
July 30, 2008	6.00	9.00 (+0.50)	8.75	25
August 30, 2008	6.00	9.00	9.00 (+0.25)	25
October 11, 2008	6.00	9.00	6.50 (-2.50)	25
October 20, 2008	6.00	8.00 (-1.00)	6.50	25
October 25, 2008	6.00	8.00	6.00 (-0.50)	25
November 3, 2008	6.00	7.50 (-0.50)	6.00	25

November 8, 2008	6.00	7.50	5.50 (-0.50)	24 (-1.00)
December 8, 2008	5.00 (-1.00)	6.50 (-1.00)	5.50	24
January 05,2009	4.00 (-1.00)	5.50 (-1.00)	5.50	24
January 17,2009	4.00	5.50	5.00 (-0.50)	24
March 05,2009	3.50 (-.50)	5.00 (-0.50)	5.00	24
April 21,2009	3.25 (-0.25)	4.75 (-0.25)	5.00	24

Note:
1. With effect from October 29, 2004, the nomenclature of repo and reverse repo was changed keeping with international usage. Now, reverse repo indicates absorption of liquidity and repo signifies injection of liquidity. Prior to October 29, 2004, repo indicated absorption of liquidity while reverse repo meant injection of liquidity. The nomenclature in this Report is based on the new usage of terms even for the period prior to October 29, 2004.

2. Figures in parentheses indicate changes in policy rates/ratios

Table: 2 Reserve Bank's Liquidity Management Operations

Item	2007–08	2008–09	2009–10
RBI's net purchases from Authorized Dealers	3,12,054	-1,78,592	-12,520
Management of Liquidity	-1,17,743	2,35,209	1,32,109

Source: Annual Report 2009, RBI

Table 3. Monthly Primary Liquidity Flows and Open Market Operations

(Rupees crore)							
Month	**RBI's Net Foreign Currency Assets #**	**Month**	**Net Repos under the LAF**	**Month**	**Net Open Market Operations**	**Month**	**Market Stabilization Scheme**
2007–08 Apr	11935	2007–08 Apr	-19189	2007–08 Apr	-313	2007–08 Apr	-12951
2007–08 May	8138	2007–08 May	-5306	2007–08 May	-680	2007–08 May	-11395
2007–08 Jun	27655	2007–08 Jun	-7687	2007–08 Jun	-252	2007–08 Jun	4702
2007–08 Jul	25219	2007–08 Jul	-3	2007–08 Jul	-664	2007–08 Jul	-2410
2007–08 Aug	38817	2007–08 Aug	-13855	2007–08 Aug	-498	2007–08 Aug	-21407
2007–08 Sep	54039	2007–08 Sep	22925	2007–08 Sep	-398	2007–08 Sep	-25039
2007–08 Oct	52372	2007–08 Oct	-24205	2007–08 Oct	-531	2007–08 Oct	-42804
2007–08 Nov	29994	2007–08 Nov	9425	2007–08 Nov	-146	2007–08 Nov	-1103
2007–08 Dec	18521	2007–08 Dec	31080	2007–08 Dec	4597	2007–08 Dec	12716
2007–08 Jan	45251	2007–08 Jan	-34305	2007–08 Jan	680	2007–08 Jan	1607
2007–08 Feb	38428	2007–08 Feb	3850	2007–08 Feb	2321	2007–08 Feb	-14031
2007–08 Mar	20181	2007–08 Mar	58435	2007–08 Mar	1809	2007–08 Mar	6697
2008–09 Apr	15059	2008–09 Apr	-83115	2008–09 Apr	-111	2008–09 Apr	-4052
2008–09 May	9447	2008–09 May	3155	2008–09 May	-54	2008–09 May	-2918
2008–09 Jun	-8971	2008–09 Jun	34610	2008–09 Jun	8860	2008–09 Jun	929
2008–09 Jul	-33674	2008–09 Jul	29325	2008–09 Jul	9488	2008–09 Jul	2993
2008–09 Aug	15580	2008–09 Aug	-26725	2008–09 Aug	1883	2008–09 Aug	-2218
2008–09 Sep	-13547	2008–09 Sep	48880	2008–09 Sep	-836	2008–09 Sep	-146
2008–09 Oct	-42465	2008–09 Oct	-67285	2008–09 Oct	-1	2008–09 Oct	8617
2008–09 Nov	-47375	2008–09 Nov	6785	2008–09 Nov	-7	2008–09 Nov	22821
2008–09 Dec	-2262	2008–09	-1670	2008–09 Dec	7677	2008–09	22316

		Dec				Dec	
2008–09 Jan	10557	2008–09 Jan	-48915	2008–09 Jan	6621	2008–09 Jan	11286
2008–09 Feb	6022	2008–09 Feb	-5215	2008–09 Feb	5801	2008–09 Feb	6773
2008–09 Mar	-8679	2008–09 Mar	58335	2008–09 Mar	55227	2008–09 Mar	13914
2009–10 Apr	-1971	2009–10 Apr	-1,06,945	2009–10 Apr	18591	2009–10 Apr	17861
2009–10 May	-7519	2009–10 May	-26410	2009–10 May	16959	2009–10 May	30326
2009–10 Jun	3245	2009–10 Jun	555	2009–10 Jun	6451	2009–10 Jun	17000
2009–10 Jul	23592	2009–10 Jul	-5405	2009–10 Jul	5243	2009–10 Jul	1827
Source : Annual Report 2009, RBI							

Figure 1. Foreign Investment Inflows (Rs. Crores)

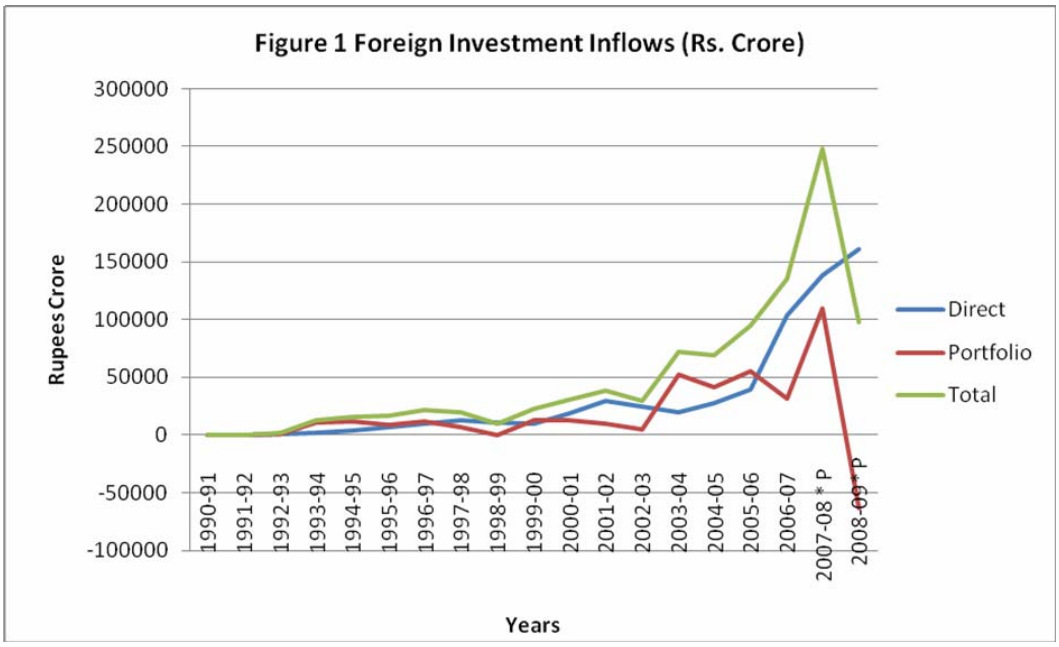
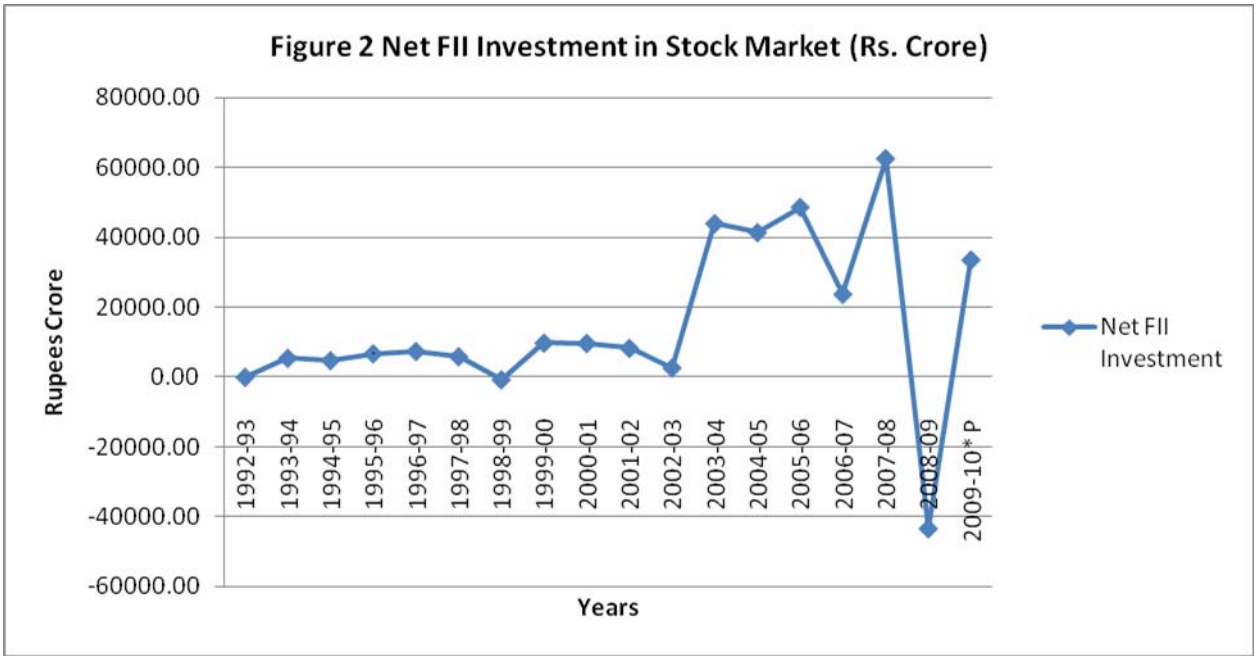
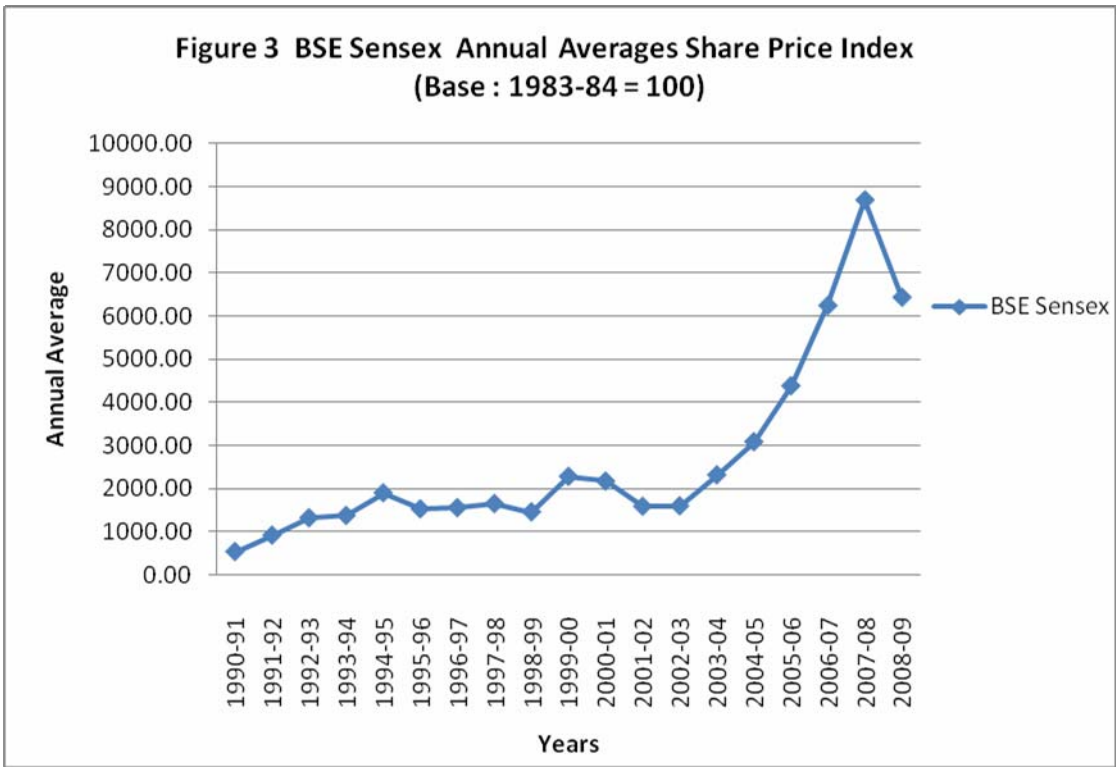


Figure 2. Net FII Investment in Stock Market (Rs. Crore)



Note: *P: Provisional.
Source: RBI, *Hand Book of Statistics on Indian Economy*, 2008–09

Figure 3. NSE Semsex Annual Averages Share Price Index

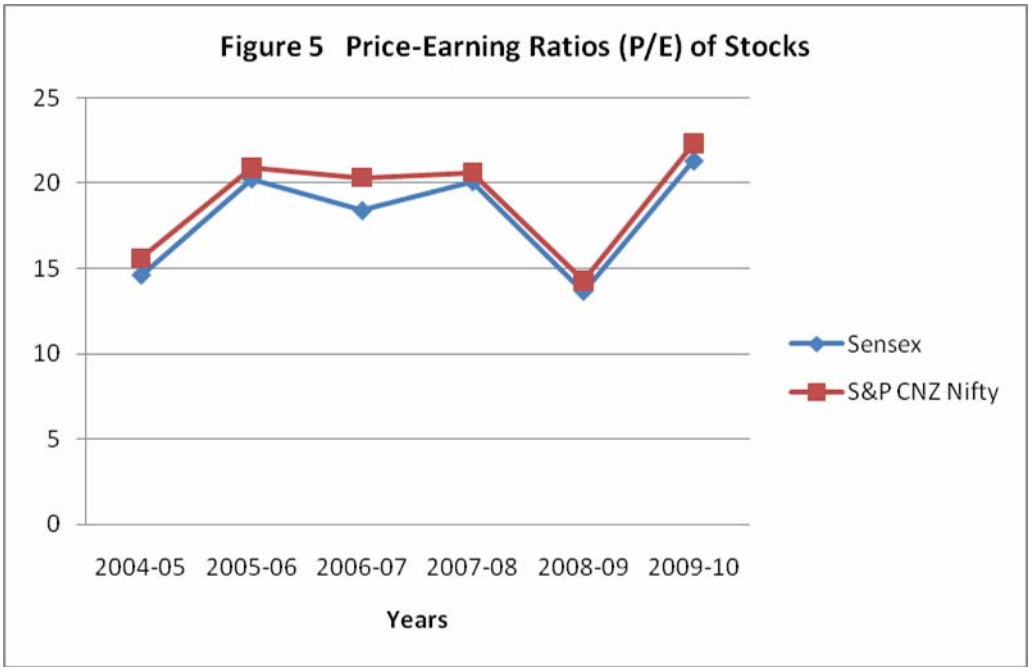


Source: RBI, *Handbook of Statistics for Indian Economy 2008–09*

Figure 4. Cash Reserve Ratio

Source: RBI, *Annual Report* 2010

Figure 5. Price-Earning Ratios (P/E) of Stocks



Note: As on the last trading day of the financial year; compiled from SEBI Bulletin, November 2009 and April 2010.

Figure 6. Nominal Effective Exchange Rates (NEER) and Real Effective Exchange Rates (REER)

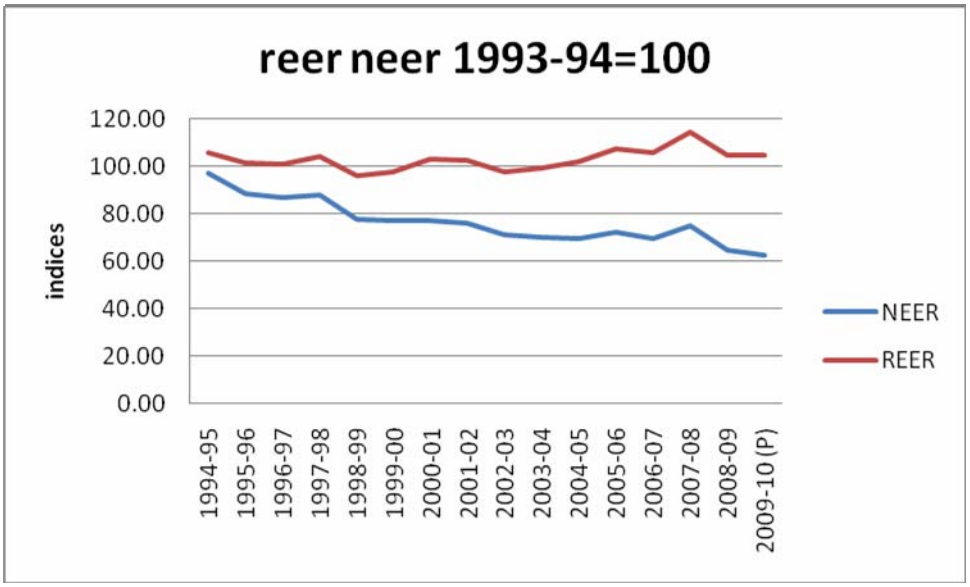


Figure 7. Turnover in the Equity Derivatives Market

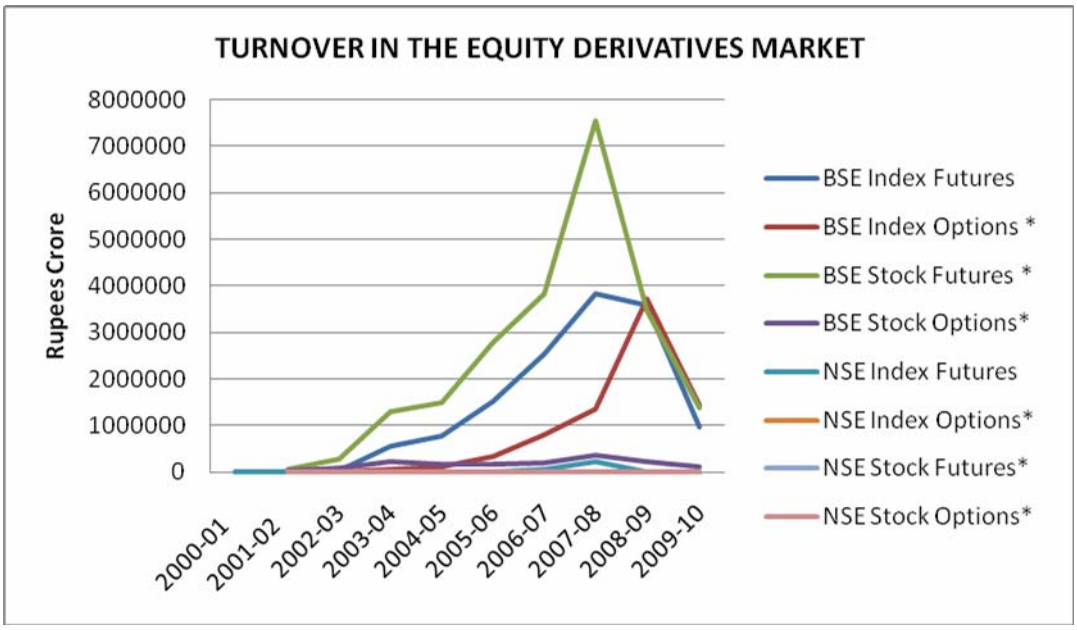


Figure 8. SD of Monthly Turnover in the Equity Derivatives

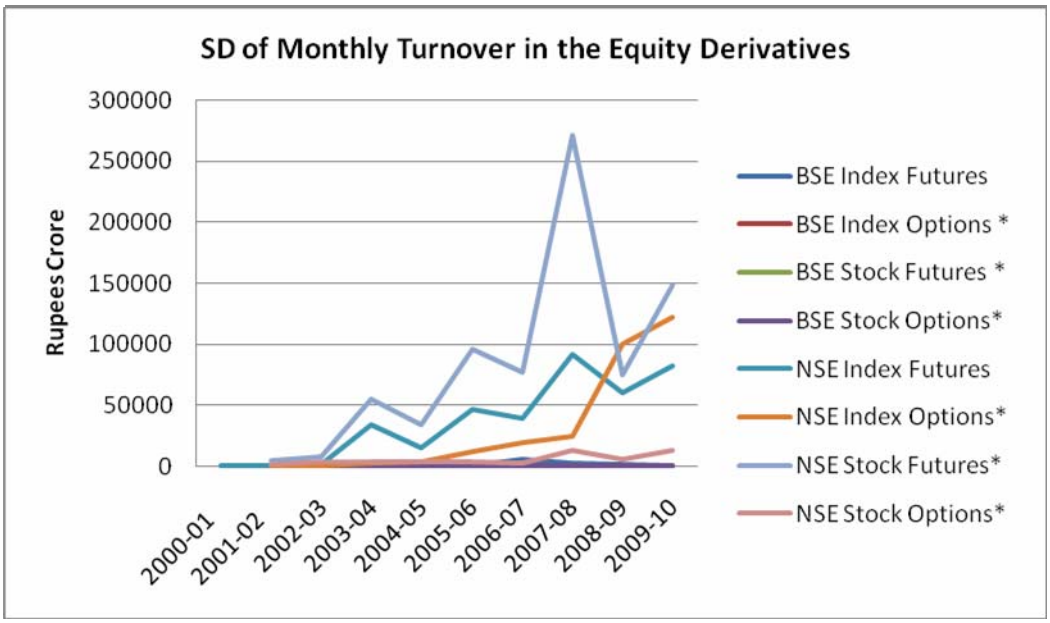


Figure 9. Monthly RBI's Net Foreign Currency Assets Inflow

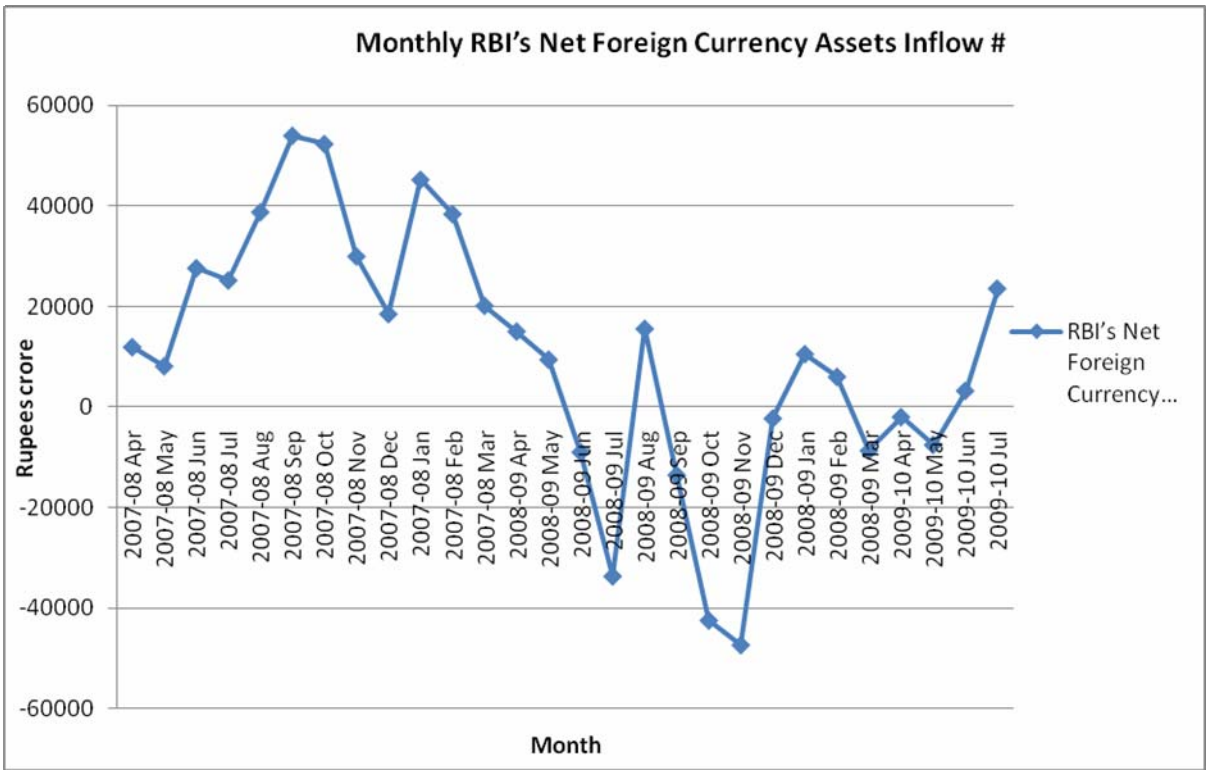


Figure 10. Net Repos under the LAF

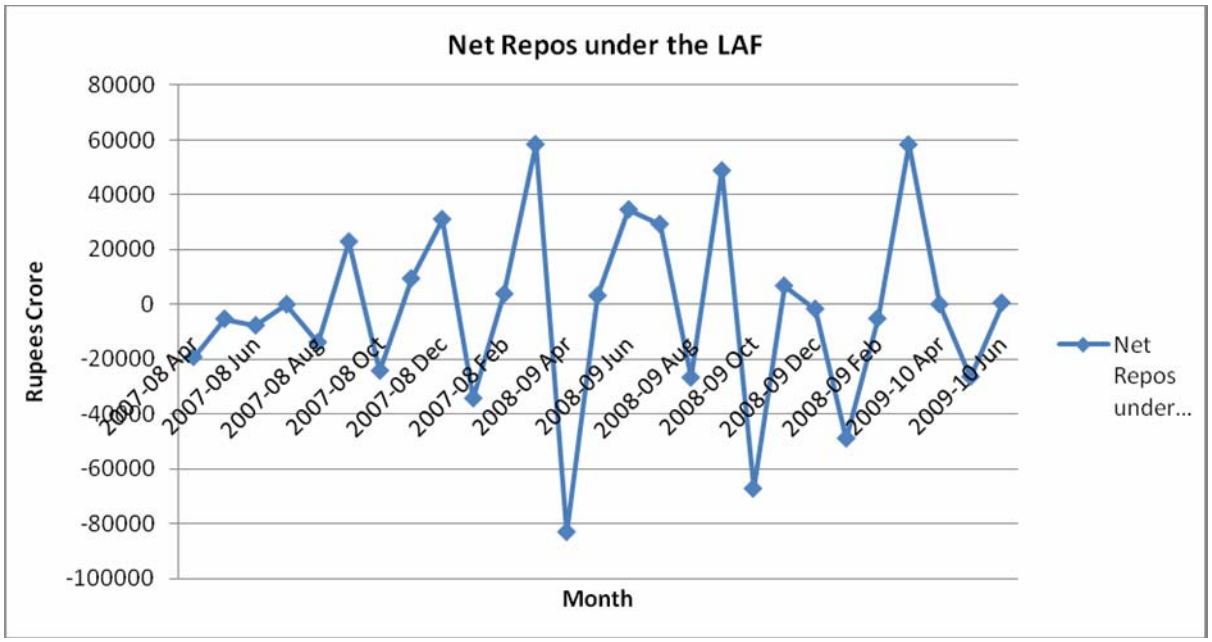


Figure 11. Monthly Net Open Market Operations Inflow

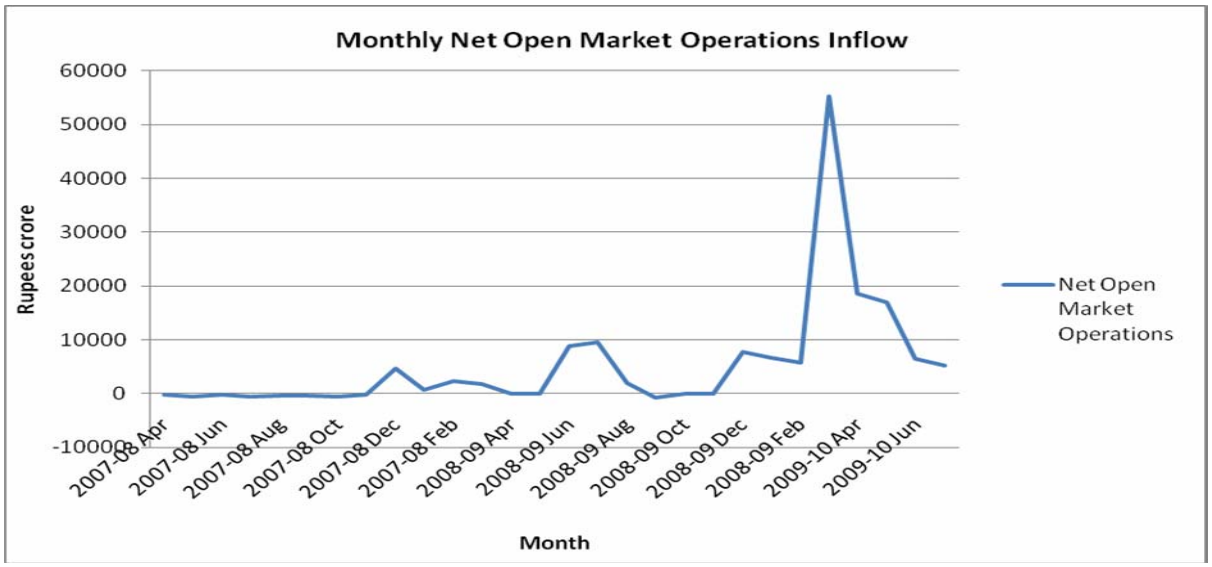


Figure 12. Monthly Market Stabilization Scheme

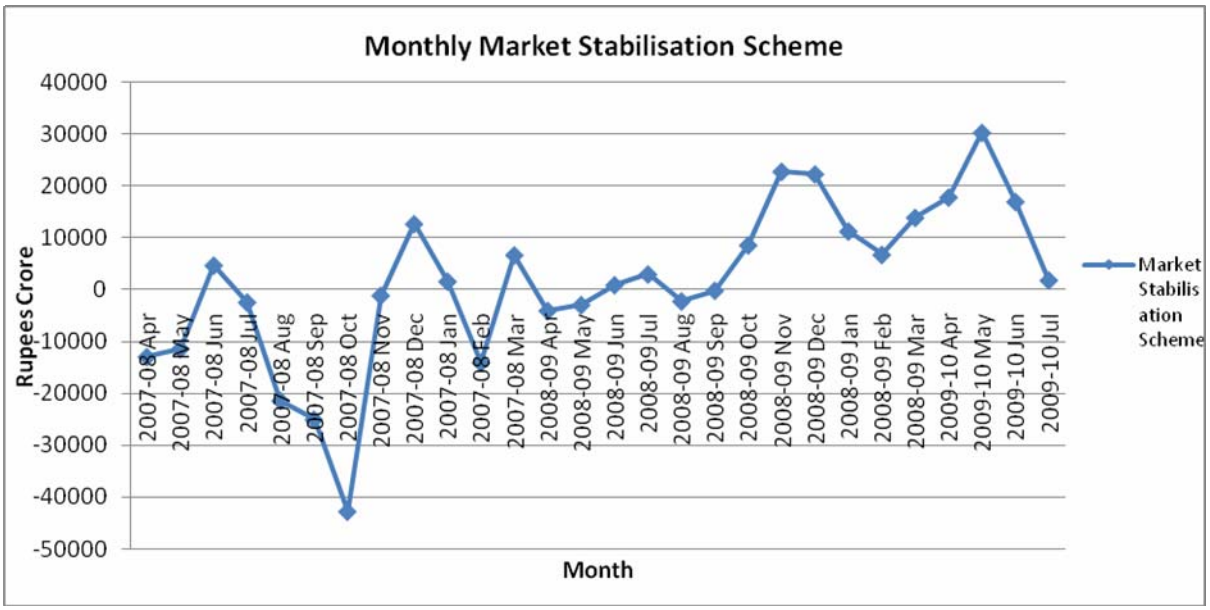


Figure 13. Turnover in the Equity Deravites Market

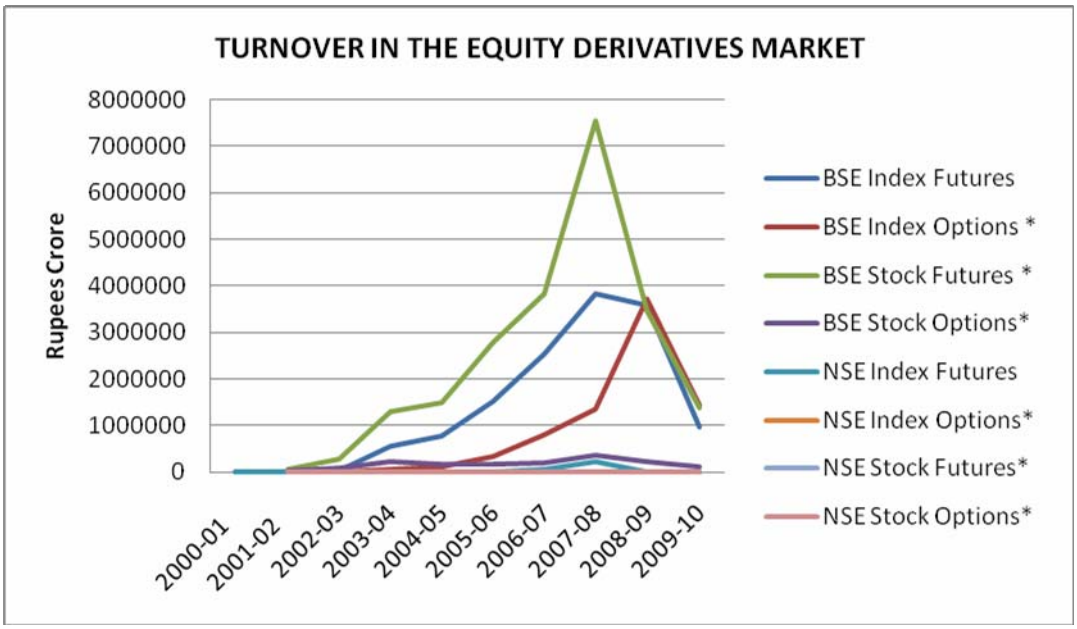
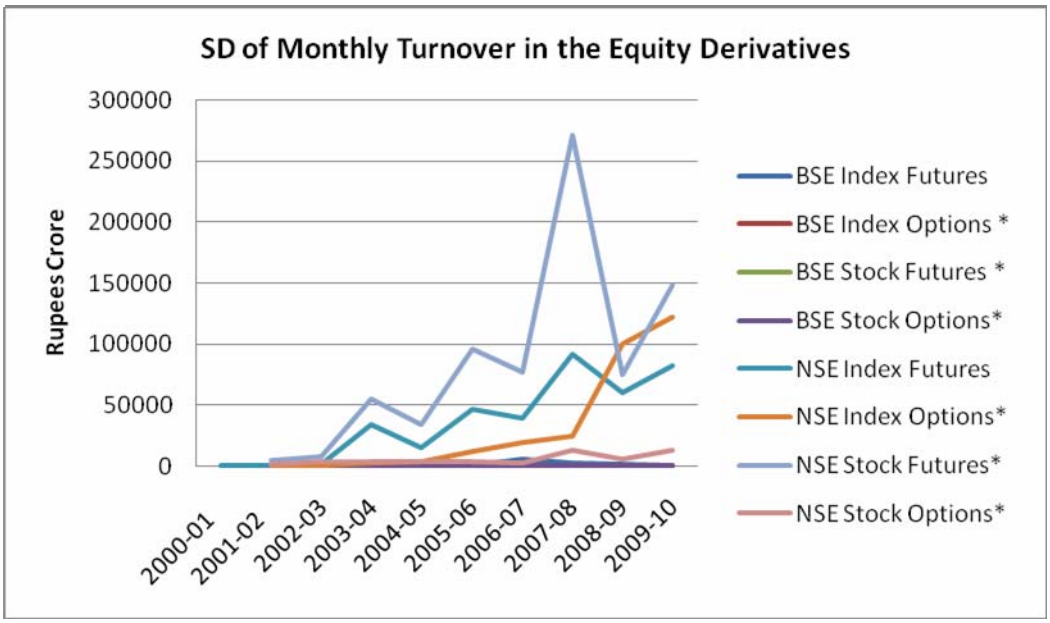
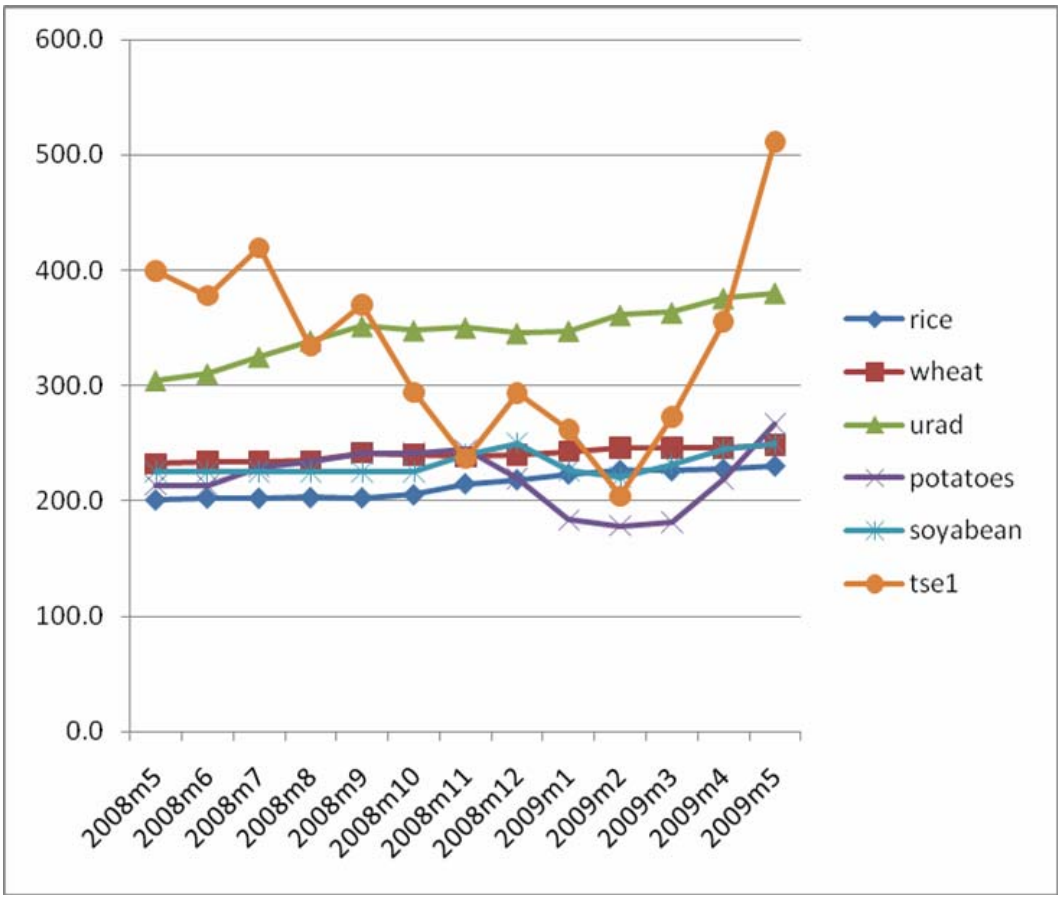


Figure 14. SD of Montly Turnover in the Equity Derivatives



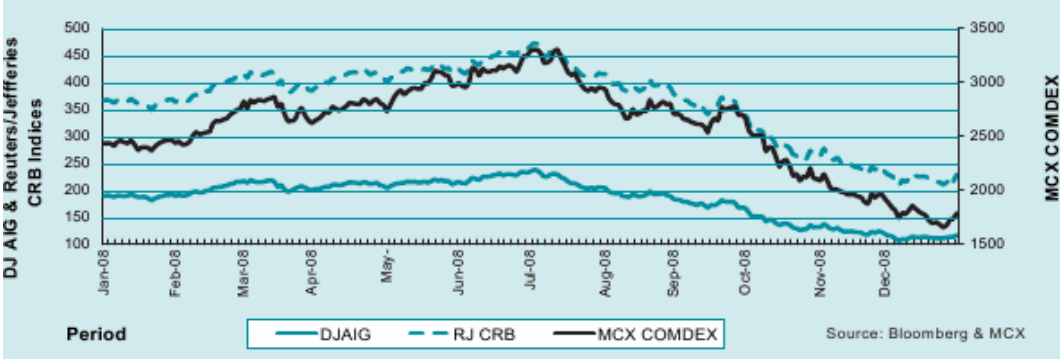
Notes:
1. *P: Provisional.
2. Data from 1995-96 onwards include acquisition of shares of Indian companies by non-residents under section 6 of FEMA, 1999. Data on such acquisitions are included as part of FDI since January 1996.
3. Data on FDI have been revised since 2000-01 with expanded coverage to approach international best practices. Data from 2000–01onwards are not comparable with FDI data for earlier years.
4. Negative (-) sign indicates outflow.
5. Direct Investment data for 2006-07 include swap of shares of 3.1 billion.
Source: RBI, *Hand Book of Statistics on Indian Economy*, 2008–09

Figure 15. Monthly Variations in Total Stock Exchange Turnovers (Rs billions) and Movements in Monthly Spot Price Indices



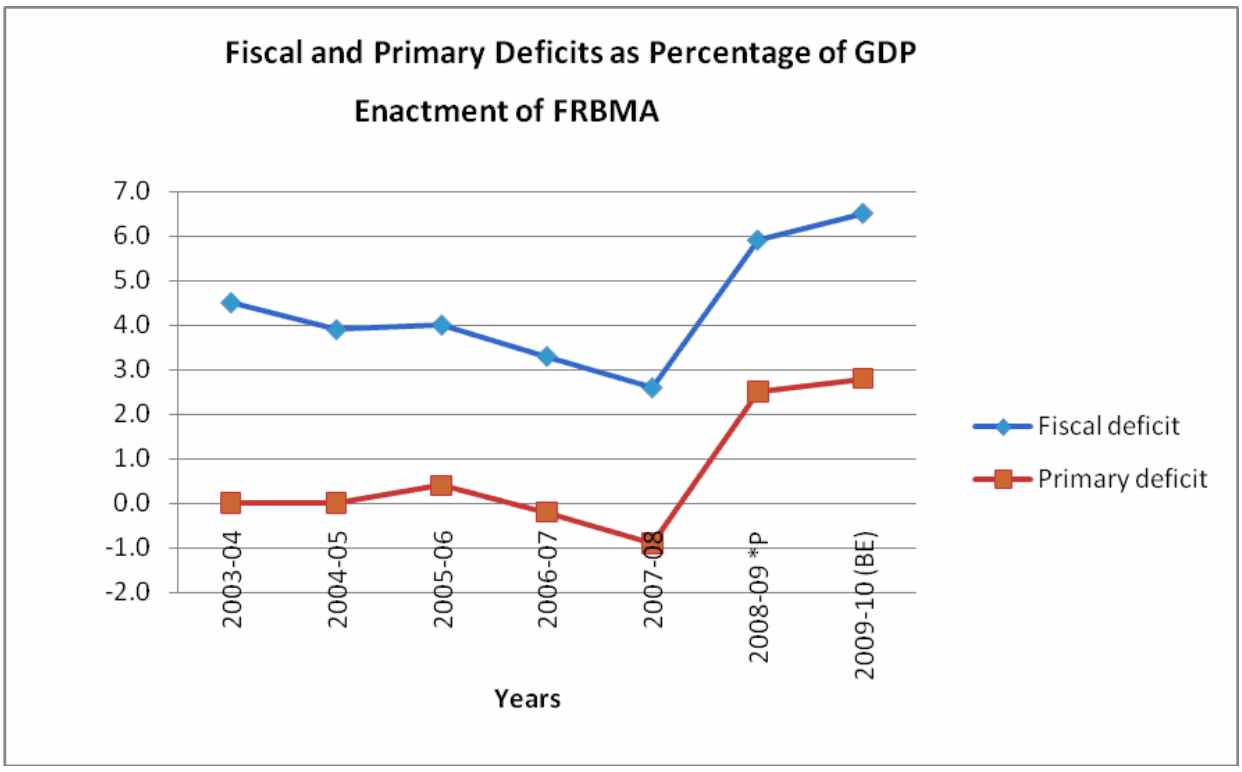
Sources: TSE (sum of BSE and NSE turnovers): Economic Survey, Government of India Futures prices: NCDEX website

Figure 16. Movements in Commodity Indices



Notes:
DJAIG: Dow Jones AIG Commodity Index
RJCRB: Reuters Jefferys Commodity Research Bureau
MCX COMDEX: Multi Commodity futures exchange India
Source: Charts 9–10, *Economic Survey of India*, 2008–09

Figure 17. Fiscal and Primary Deficit as a Percentage of GDP



Notes:
BE: Budget estimate
*P: Provisional
Source: Economy Survey of India 2009-10

Figure 18. Consequences of Capital Account Convertibility

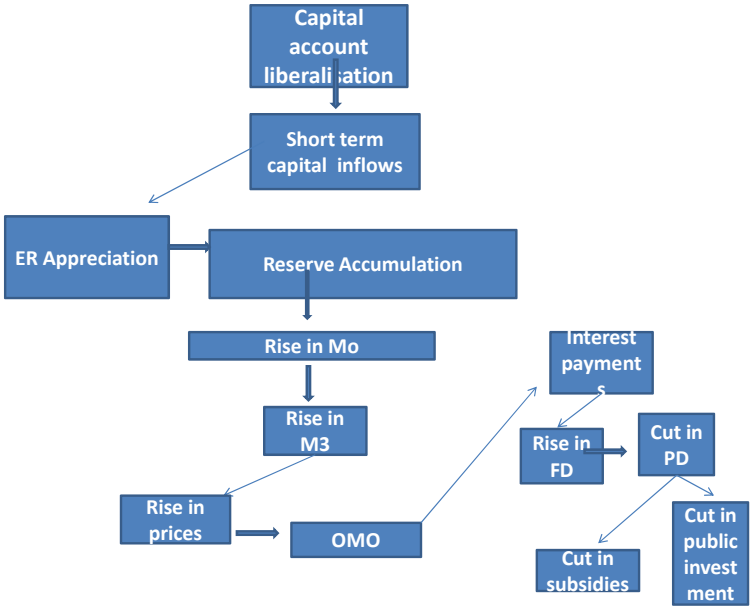
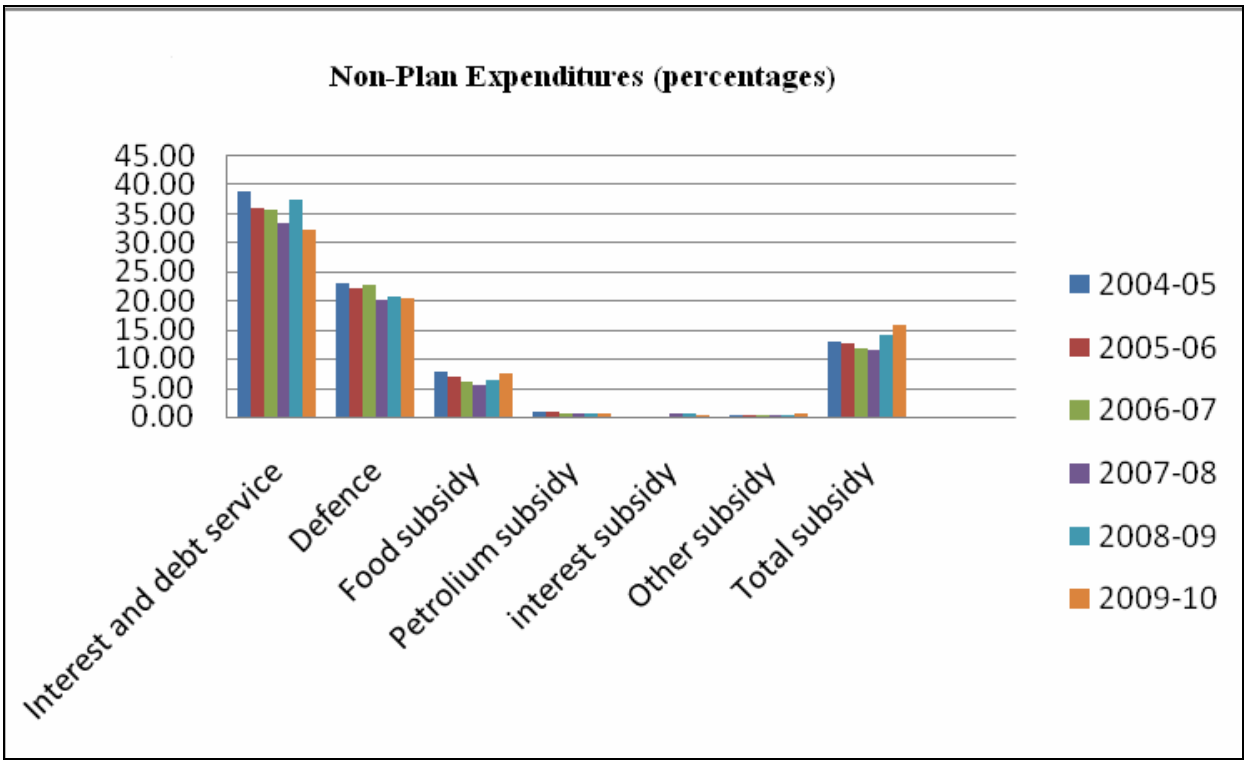


Figure 19. Percentages of Non-Plan Expenditure



Source: Ministry of Finance, Government of India