

Draft: Not to be Quoted or Circulated

# Corporate Behaviour under Liberalized Finance The Indian Experience

Prasenjit Bose\*

[To be presented at the International Conference on *The Indian Economy in the Era of Financial Globalisation*, organised by the Maison des Sciences de l'Homme and the Research Centre EconomiX (CNRS-Paris X University), MSH, Paris, September 28-29, 2006]

---

\* Independent Researcher, New Delhi, India

# Corporate Behaviour under Liberalized Finance The Indian Experience<sup>#</sup>

Prasenjit Bose

The Indian economy is being increasingly cited as an unambiguous beneficiary of globalization and liberalization. The fact that the current GDP growth rate in India is among the highest in the world has contributed to such an assessment. It is also being argued from several quarters that accelerated liberalization, especially of the financial sector, would facilitate greater inflows of capital into the Indian economy and lead to the attainment of even higher GDP growth rates. The policy establishment in India shares much of this enthusiastic appraisal. Accordingly, a move has been initiated by the present Government of India towards greater capital account liberalization.

A Committee was set up by the Reserve Bank of India in March 2006, which has submitted its Report recently, recommending a host of measures to ease inflows and outflows of capital by residents and non-residents.<sup>1</sup> The theoretical premise of the Report is contained in the following formulation:

FCAC (Fuller Capital Account Convertibility) is not an end in itself, but should be treated only as a means to realise the potential of the economy to the maximum possible extent at the least cost. Given the huge investment needs of the country and that domestic savings alone will not be adequate to meet this aim, inflows of foreign capital become imperative... The objectives of FCAC in this context are: (i) to facilitate economic growth through higher investment by minimising the cost of both equity and debt capital; (ii) to improve the efficiency of the financial sector through greater competition, thereby minimising intermediation costs and (iii) to provide opportunities for diversification of investments by residents.<sup>2</sup>

A whole body of critical literature already exists on the increasing fragility of the global as well as national financial systems in the context of financial globalization. Critics have argued that free capital flows impart greater volatility to capital markets worldwide and enhance the risk of debt and currency crisis triggered by sudden reversals in the direction of capital flows. These were borne out by the crises experienced by several developing countries over the past decade, including Mexico, South East Asia, Russia, Brazil, Turkey and Argentina. India and China could avoid such a predicament primarily due to the extant capital controls.

---

<sup>#</sup> Comments on the paper by Prabhat Patnaik, Atulan Guha and Jyotirmoy Bhattacharya are acknowledged. The usual disclaimer applies.

<sup>1</sup> The *Committee on Fuller Capital Account Convertibility* (CFCAC) submitted its report on 31<sup>st</sup> July 2006. The Committee was chaired by S S Tarapore, a former Governor of the RBI. This is the second such Committee under the same Chairman set up for laying a roadmap for capital account liberalization in India. Most of the recommendations of the first Tarapore Committee (1997) were shelved following the South East Asian currency crisis.

<sup>2</sup> RBI (2006), pp 7-8.

Nevertheless, for the Tarapore Committee, the risks of financial fragility and crisis have been outweighed by the supposed gains from enhanced capital inflows.

The present paper offers a critique of this approach. While most of the critical literature on financial liberalization deals with the problems of exchange rate management and domestic monetary policy following capital account opening, in this paper we question the very belief that financial liberalization leads to higher levels of investment and economic growth on the basis of the Indian experience. The following section gives a brief outline of the macroeconomic context in which the policy debate over capital account liberalization is taking place. The second section focuses on the behaviour of Indian private non-financial corporate sector in the post-liberalization period. The theoretical argument is presented in the form of a simple asset choice model in the third section.

## I

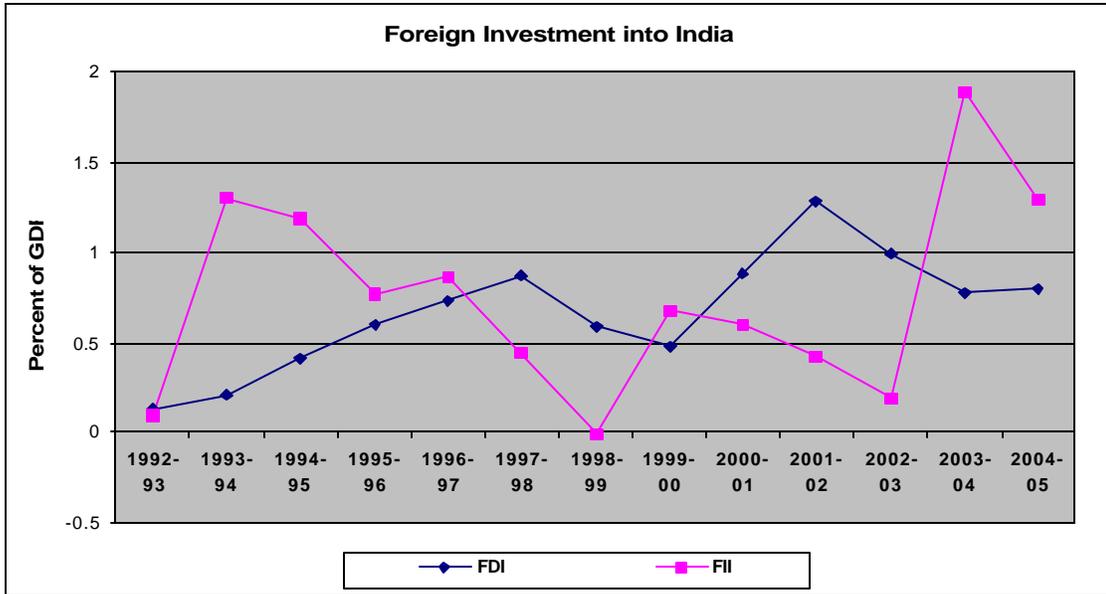
The Indian economy has witnessed progressive liberalization of rules governing capital inflows since a new policy regime was put in place in 1991. Since then, the limit on FDI ownership has been raised to 100% for most sectors with caps of 26%, 49% and 74% on FDI ownership for a few sectors like Telecommunication, Banking, Insurance, Defence, Broadcasting etc. The capital account has been opened up for stock market investments in equity and derivatives by Foreign Institutional Investors (FIIs). Aggregate FII ownership in a firm is capped at 24% but firms are allowed to raise this till 98%. Indian firms are also allowed to raise capital from abroad through issuance of GDR/ADR and Foreign Currency Convertible Bonds. External Commercial Borrowing by Indian firms has been permitted subject to an overall cap of \$15 billion annually. FII participation in the corporate and government bond market has been allowed subject to a cap of \$1.5 billion each on the total stock of FII ownership. Thus a fair degree of liberalization has already taken place in the Indian economy.<sup>3</sup> The current debate in the policy circles in India, as far as capital inflows are concerned, is on the extent of further relaxing the limits and caps; i.e. on the sequencing and pace of liberalization.

Following the liberalization of capital inflows, foreign investment flows into India have increased considerably to reach \$20 billion by 2005-06, with cumulative foreign investment flows amounting to \$106 billion since 1990-91. Out of this FDI inflows amounted to \$49 billion and FII inflows \$57 billion. Chart 1 below shows that annual FII inflows have exceeded FDI flows in seven out of thirteen years from 1992-93 to 2004-05. India's share in total FDI inflows into emerging markets stood at 3.7% in 2005 while its share in total portfolio inflows was around 15%. Clearly, India in its post-liberalization phase has become a favoured destination of portfolio investments rather than FDI.

---

<sup>3</sup> Capital outflows have also been relaxed over time. Currently, resident corporates are permitted to make financial capital transfers abroad to the extent of 25% of their net worth. Investment overseas by Indian companies of up to 200% of their net worth is permitted. Resident individuals are permitted to remit up to \$25,000 a year to foreign currency accounts for any purpose. NRIs are permitted to repatriate up to \$1 million a calendar year out of balances held in "non-repatriable" Non-Resident Ordinary (NRO) accounts or out of sales proceeds of assets acquired by way of inheritance.

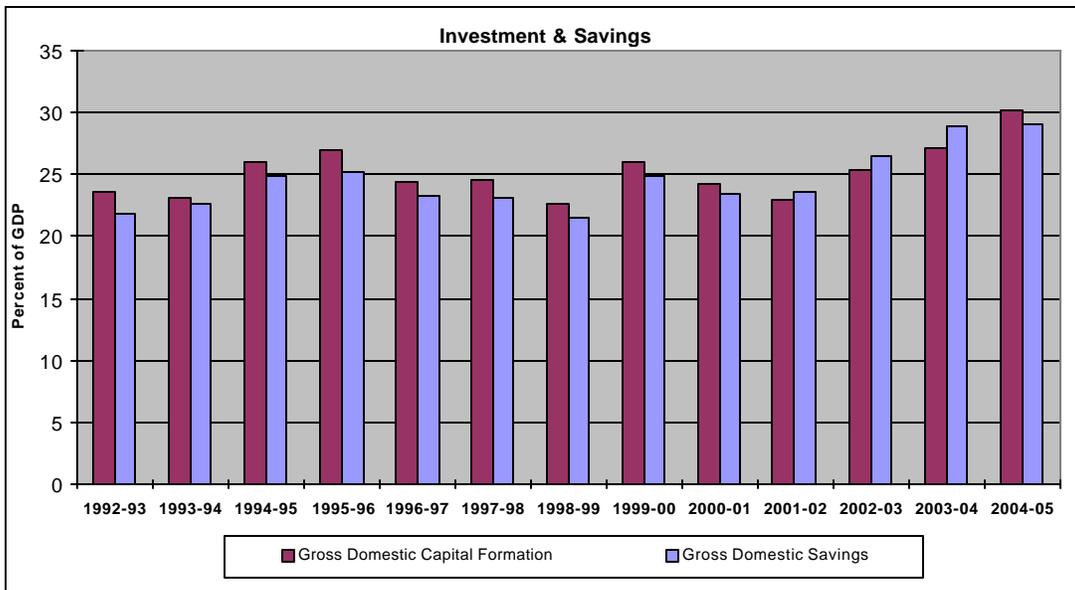
**Chart 1**



Source: RBI Annual Report, various issues

Chart 2 below shows that neither did the investment rate in the Indian economy experience any remarkable acceleration in the post-liberalization period, nor was there any major divergence between domestic investment and savings. An upward trend in investment is noticeable since 2001-02 but for most of the period since then, the savings rate has tended to remain above the investment rate. Thus larger foreign capital inflows following financial liberalization leading to levels of domestic investment much higher than what is permitted by domestic savings has not been observed in the Indian case.

**Chart 2**

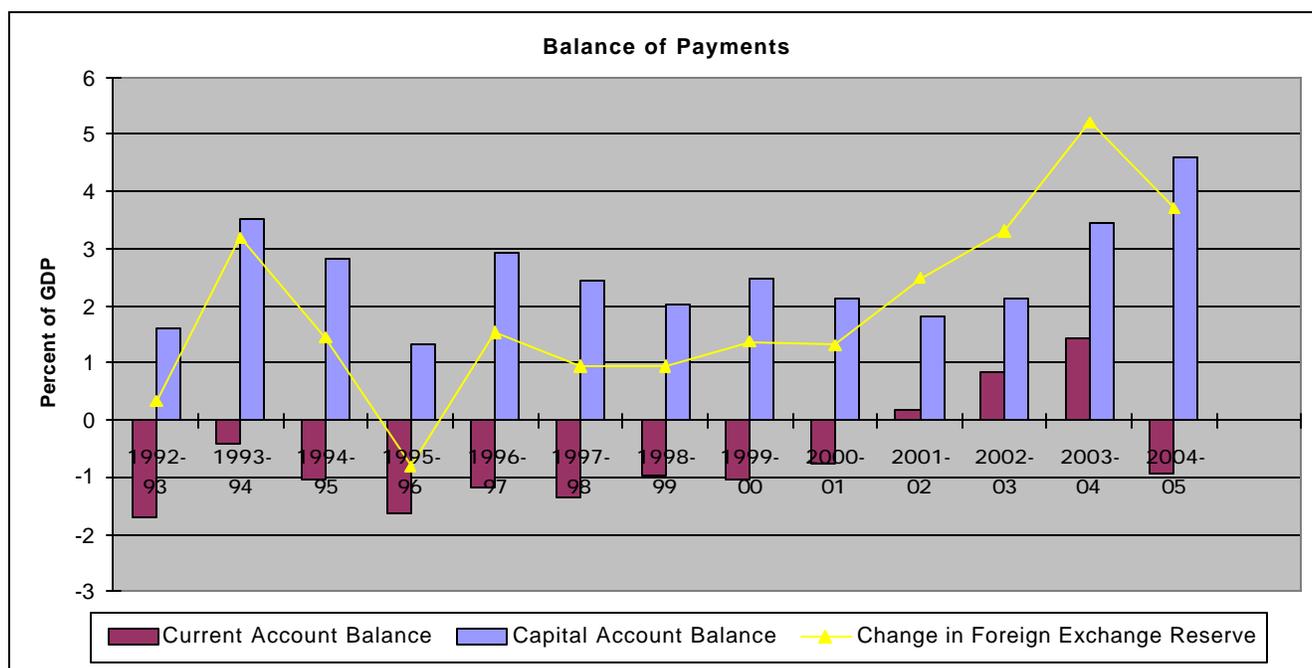


Source: RBI Annual Report, various issues

Rather, as can be seen from Chart 3 below, between 2001-02 and 2003-04 both the capital and the current account were in surplus, implying that a part of domestic savings along with the entire

amount of net capital inflow was being lent or invested abroad. Moreover, capital inflows have led to accumulation of foreign exchange reserves, especially since 2000-01.

**Chart 3**



Source: RBI Annual Report, various issues

**Table 1: Sources of Accretion to Foreign Exchange Reserves since 1991**  
(US\$ billion)

Items	1991-92 to 2005-06 (up to end-March 2006)
<b>A</b>	<b>Reserve Outstanding as on end-March 1991</b>
	5.8
<b>B.I.</b>	<b>Current Account Balance</b>
	-28.8
<b>B.II.</b>	<b>Capital Account (net)</b>
	170.3
	(out of which)
	Foreign Investment
	93.9
<b>B.III.</b>	<b>Valuation change</b>
	4.4
	<b>Total (A+BI+BII+BIII)</b>
	151.6

Source: Report on Foreign Exchange Reserves, July, 2006, RBI

India's foreign exchange reserves, which was \$5.8 billion in 1991-92 increased steadily to reach \$151.6 billion in March 2006. These reserves have accumulated primarily because of the

massive purchases of foreign currency undertaken by the RBI in order to prevent exchange rate appreciation in the face of capital inflows. However, there are economic costs of holding such large volumes of foreign exchange reserves since the return on foreign investments in India is much higher than the yield of foreign government securities in which much of the reserves are held by the RBI.<sup>4</sup>

It is in the context of such burgeoning foreign exchange reserves that two divergent views have emerged within the Indian policy establishment. One view argues that it is time to ease outflow of capital, not only for financial and non-financial firms but also for resident individual citizens. This is the approach of the CFCAC. Some commentators, who subscribe to this approach, also argue that capital controls should not only be relaxed but done away with altogether and the rupee made to float freely. On the other hand there is a strong view, even within the RBI, which advocates greater control of capital inflows, especially of the FII variety. Interestingly, the CFCAC while recommending several measures to liberalize capital outflows and inflows has also accommodated a key demand of those who are in favour of controlling inflows; that of banning the issue of Participatory Notes by the FIIs.<sup>5</sup>

## II

In this section we focus upon the performance of the private non-financial corporate sector in India in the post-liberalization period in order to ascertain whether financial liberalization has led to an increase in corporate investment. The argument in favour of encouraging capital inflows goes as follows:

*Foreign investment – both portfolio and direct varieties – can supplement domestic savings and augment domestic investment without increasing the foreign debt of the country. Such investment constitutes non-debt creating financing instruments for the current account deficits in the external balance of payments. Capital inflows into the equity market give higher stock prices, lower cost of equity capital, and encourage investment by Indian firms.*<sup>6</sup> (emphasis original)

We have already discussed in the earlier section that the first of the assertions does not hold in the Indian context. Let us now turn to the second one. Chart 4 shows that the share of capital formation by the private corporate sector in gross capital formation fell in the post-liberalization period.

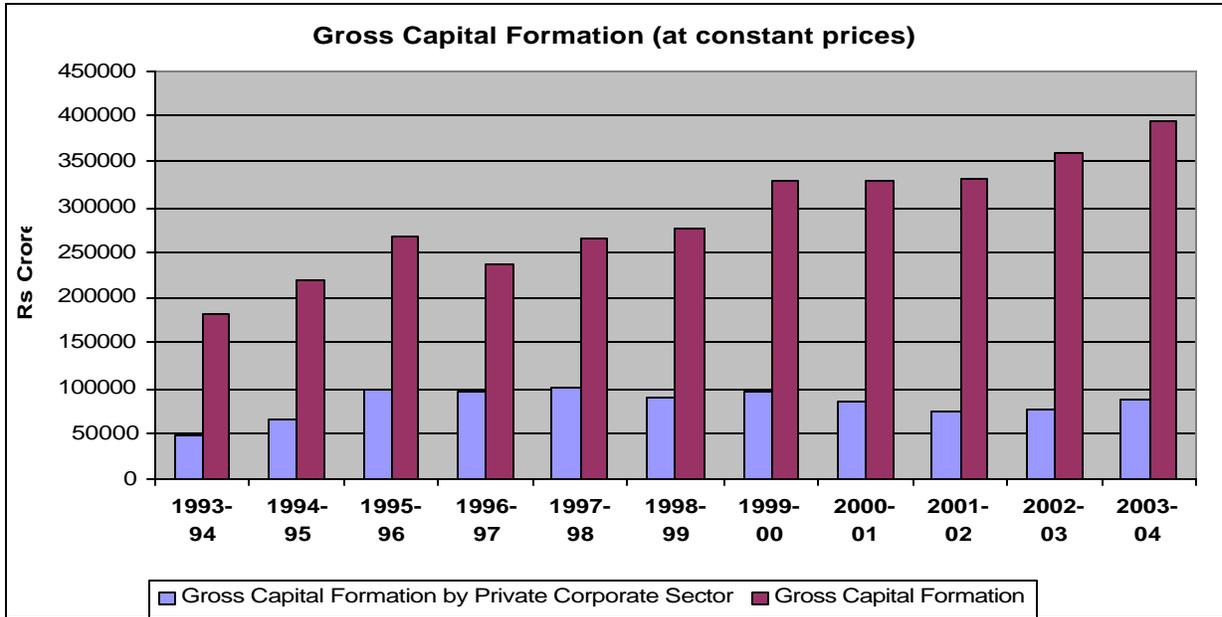
---

<sup>4</sup> For a detailed discussion on the costs of holding foreign exchange reserves in the Indian context, see Rakshit (2006).

<sup>5</sup> Participatory Notes (PNs) are derivative instruments issued by FIIs registered in India to overseas clients, like hedge funds, who are otherwise not entitled to trade in the Indian stock markets. FII investment through the PN route has increased steadily from around 26% in 2003 to over 50% in 2006. The Finance Ministry had set up an *Expert Group on Encouraging FII Flows and Checking the Vulnerability of Capital Markets to Speculative flows* in 2005. There was a debate within the group over PNs. While the Expert Group had finally recommended continuation of the PNs with stricter disclosure norms, the RBI representative within the Group submitted a note of dissent, arguing for a complete ban.

<sup>6</sup> This is the Rationale for encouraging FII flows cited in p.14 of the MoF (2005).

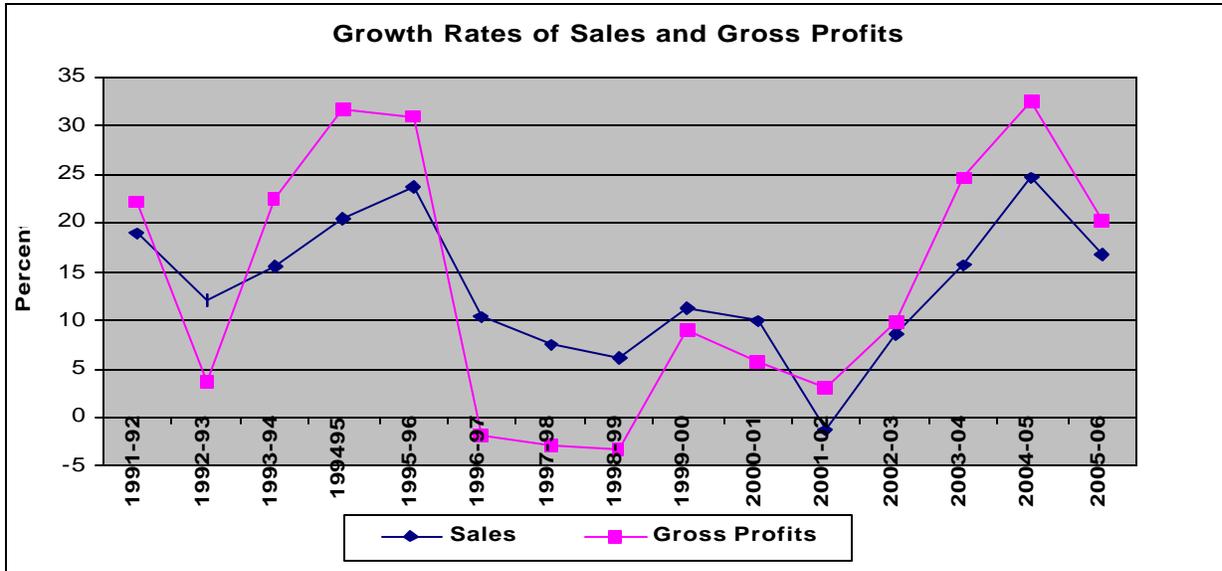
**Chart 4**



Source: Handbook of Statistics on Indian Economy, RBI, 2006

Chart 5 below is based on a study of the Private Corporate Sector in the post-liberalization period done by the RBI based upon the combined balance sheets of these companies.<sup>7</sup> The performance of the selected private non-financial public limited companies in terms of

**Chart 5**



Source: RBI Bulletin, various issues

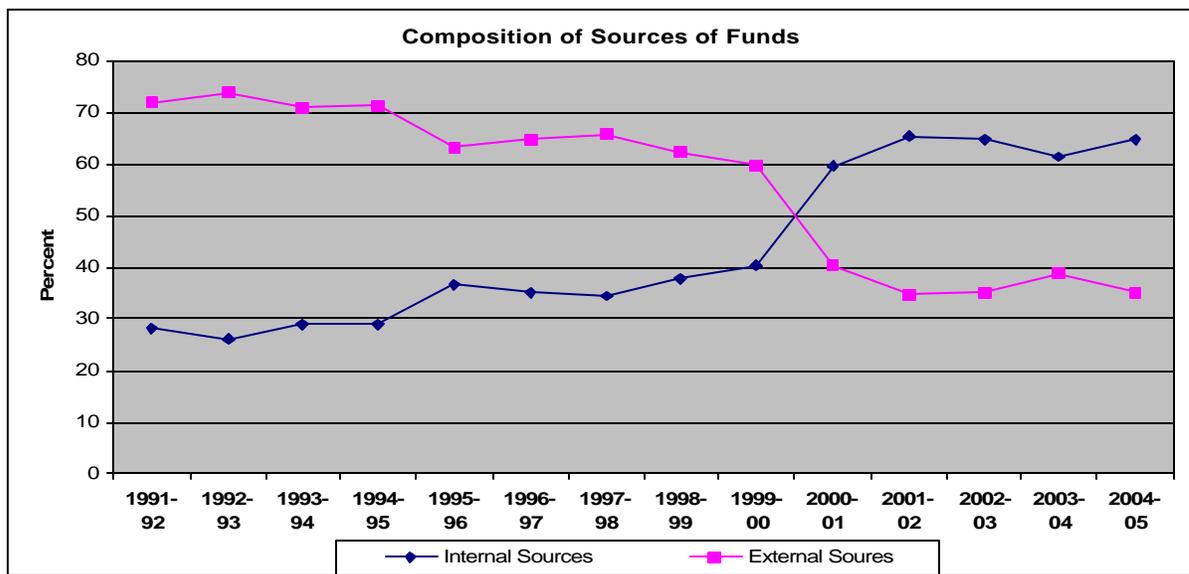
sales and gross profits show two phases of rapid sales and profitability growth, between 1992-93 to 1995-96 and 2002-03 to the current period. The rest of the period shows average

<sup>7</sup> Prepared by the Company Finance Division, Department of Statistical Analysis and Computer Services, RBI. This was published in RBI Bulletin, November 2005. The number of companies studied during each year in the period between 1991-92 to 2002-03 varied within the range 1720 to 2031. Data for 2003-04 and 2004-05 was published in RBI Bulletin, March 2006 and had 964 companies in the sample. Data for 2005-06 was published in RBI Bulletin, September 2006 and had 2210 companies in the sample.

sales and profitability growth with negative profitability growth between 1996-97 and 1998-99.

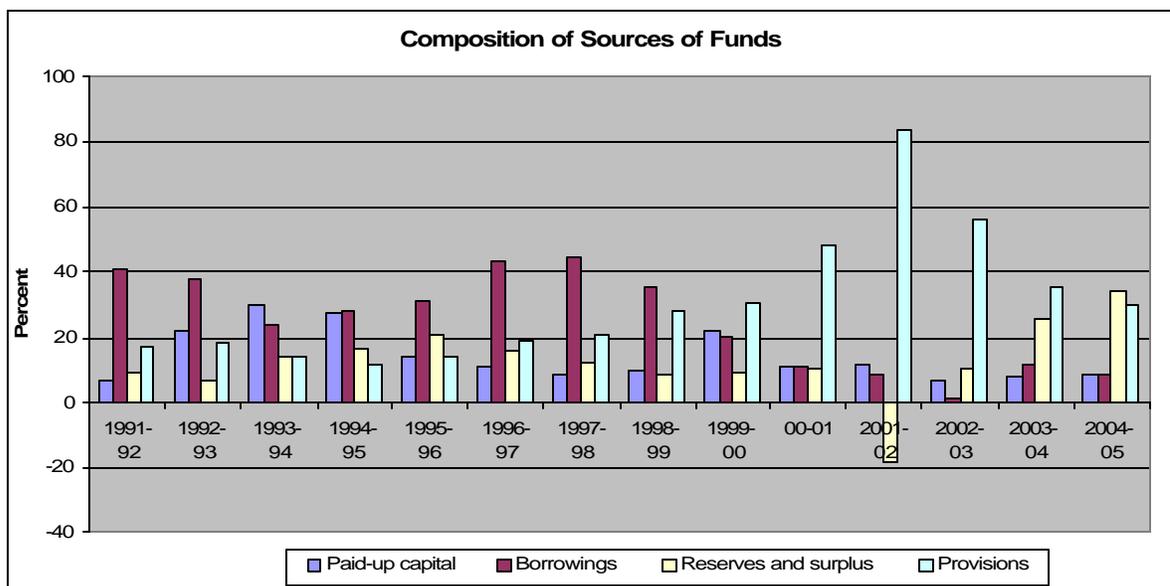
Charts 6 and 7 show the composition of the sources of funds for the companies in the sample. There is a clear shift away from external sources of finance towards internal sources during the post-liberalization phase. Equity financing has been the least preferred source of finance except for the brief period between 1992-93 to 1994-95. Borrowings have also declined after 1998-99. Private non-financial companies have increasingly sourced their funds internally, from their own reserves and surplus and depreciation and tax provisions.

**Chart 6**



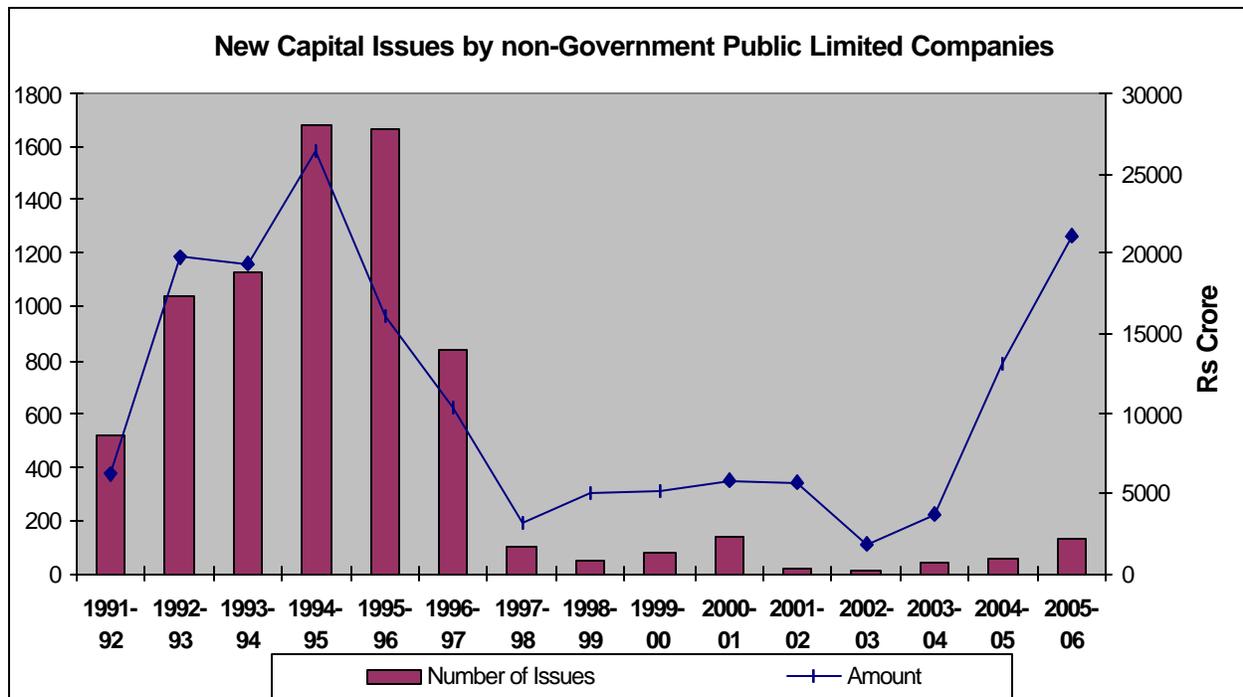
Source: RBI Bulletin, various issues

**Chart 7**



Source: RBI Bulletin, various issues

**Chart 8**

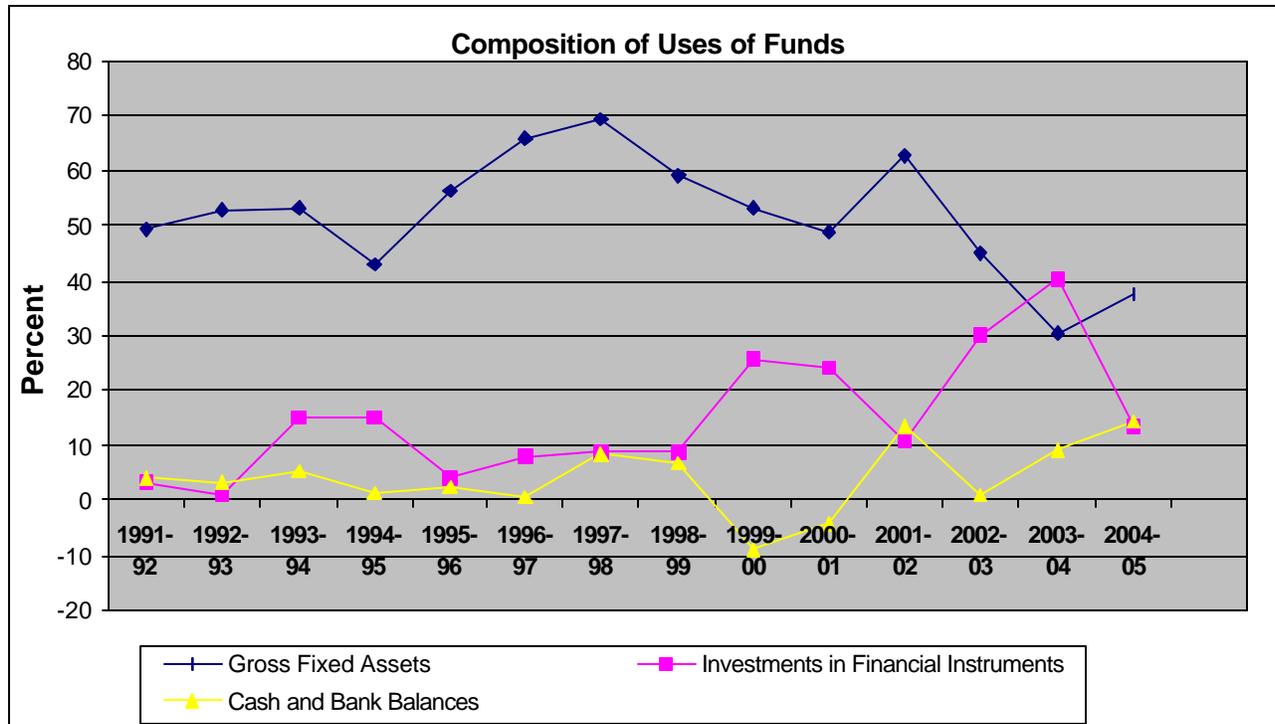


Source: Handbook of Statistics on Indian Economy, RBI, 2006

Resource mobilization from the primary market by the private corporate sector is shown in Chart 8 (this includes both financial and non-financial companies). There was a significant increase in capital issues in the years following liberalization with both the number of capital issues as well as the amount mobilized experiencing a steep climb. However, this trend lasted only till 1995-96. Since then there has been a sharp drop in the number of new capital issues. What is remarkable in the period 2003-04 onwards is that while the number of new issues has not increased much, the amount being mobilized from the primary market has shown a steep increase. This implies that a handful of private companies have taken advantage of the market buoyancy to raise resources through equity issues. The secondary market has been witnessing an unprecedented bull run since May 2004, with the BSE Sensex going up from less than 5000 points to near the 12000 mark by March 2006, mainly driven by the FIIs. Equity investments by FIIs have averaged an unprecedented Rs. 44,294 crore per annum between 2003-04 and 2005-06. Domestic mutual funds have also increased their equity investments from Rs. 448 crore in 2004-05 to Rs. 14,302 crore in 2005-06.

However, the fact that the total number of new capital issues in the primary market has not increased post-2003 despite the secondary market indices scaling unprecedented peaks does not support the claim made by the Report of the Expert Group on Encouraging FII Flows that “capital inflows into the equity market give higher stock prices, lower cost of equity capital...”. While portfolio investments may cause stock price appreciations, that in turn does not lead to a fall in the cost of equity capital. If the cost of equity capital were to move inversely with stock prices, the number of new capital issues would have also surged along with the bullish market. That has clearly not happened.

**Chart 9**



Source: RBI Bulletin, various issues

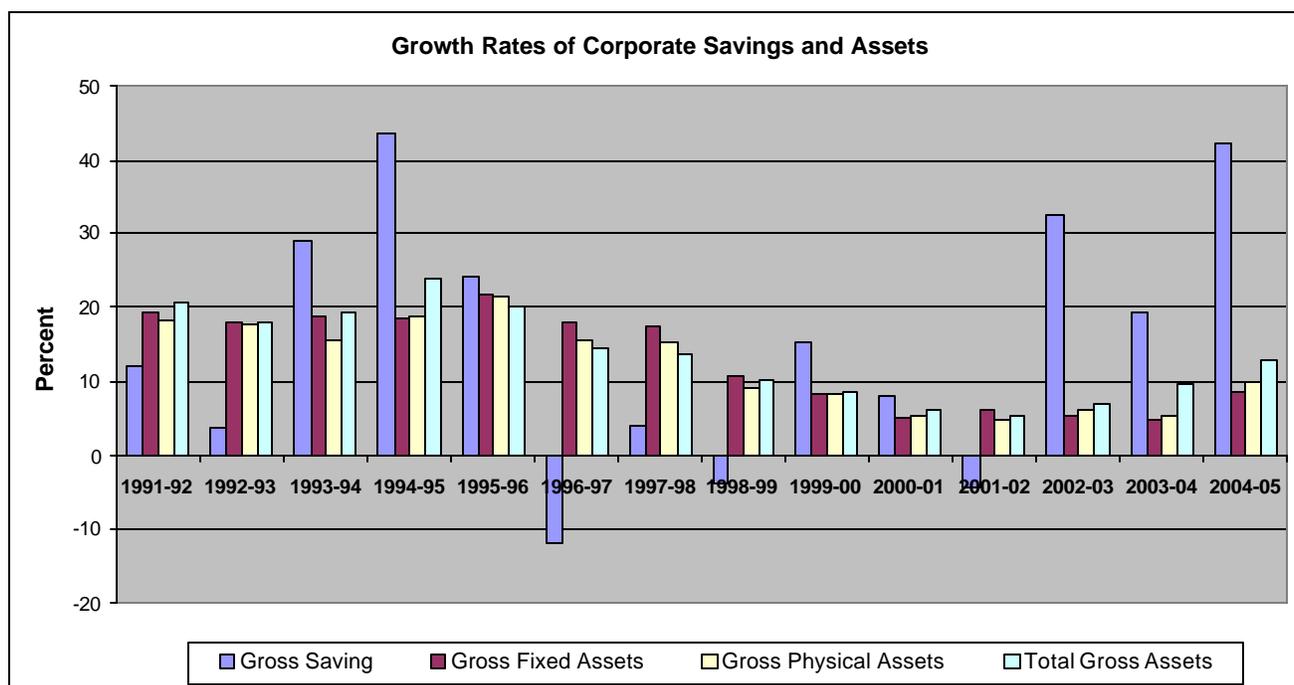
The argument that high stock prices would “encourage investments by Indian firms” is even more tenuous. Chart 9 above shows the shares of components in total uses of funds by the private non-financial companies in the RBI samples. The share of gross fixed assets formation in total uses of funds peaked in 1997-98 and has been declining since then. The RBI (2005) study says, “The growth of gross fixed assets, which peaked at 21.8% in 1995-96, declined gradually to 5.3% in 2000-01 and stood at 5.5% in 2002-03. The share of gross fixed assets formation in total uses of funds increased upto 69.2% in 1997-98 and it was 45.1% in 2002-03. Gross capital formation to total uses of funds ratio also followed the same trend.” What is noteworthy is the increase in the share of financial investments in total uses of funds over the post-liberalization period. In 2003-04, for the companies studied by the RBI (2006), the share of financial investments was 40.4%, which was higher than the share of gross fixed assets at 30.5%.<sup>8</sup>

Chart 10 below shows that on average corporate savings have grown much faster than fixed or physical assets in the post-liberalization period. In eight out of the fourteen years observed, the companies in the sample have shown higher savings growth than total asset growth. Savings growth was negative in 1996-97, 1998-99 and 2001-02, but it was around 30% in 1993-94 and 2002-03 and over 40% in 1994-95 and 2004-05. The growth rate of total assets, fixed assets and physical assets peaked in 1995-96 at over 20%. Since then it fell to

<sup>8</sup> Gross Fixed Assets include land, buildings, plant and machinery, capital work-in-progress etc. Financial Investments include government/semi-government securities, securities of financial institutions, industrial securities, shares and debentures of subsidiaries etc.

around 5% in 2000-01. While asset growth has improved since then, it remained far below savings growth between 2002-03 and 2004-05.

**Chart 10**



Source: RBI Bulletin, various issues

This observable tendency of the non-financial corporate sector towards excess savings is not restricted to India alone. Current levels of corporate savings in the industrialized countries are also considered to be excessive. The IMF World Economic Outlook (2006) states:

The large current account surplus in emerging market (and, more recently, oil-producing) countries has been labeled a global “savings glut”...Yet, the \$1.3 trillion of corporate excess saving (undistributed profits less capital spending) in the Group of Seven (G-7) countries in 2003-04 was more than twice the size of the accumulated current account surpluses of emerging market and developing countries during those two years...the strong increase in profits has been used by nonfinancial corporates to acquire financial assets—including substantial amount of liquid assets (“cash” for short) during 2003-04—or to repay debt, rather than to finance new capital investments or to increase distributions to shareholders through dividends.<sup>9</sup>

Calculations by the IMF suggest that the excess corporate saving was at a historic high of 2.5% of GDP in the G-7 countries. While the financial corporate sector has been in an increasing excess savings position since the early 1990s, the non-financial corporate sector has registered net saver position since 2002. The IMF also thinks that this tendency towards excess savings is not a temporary phenomenon related to balance sheet adjustments by

<sup>9</sup> IMF (2006), p.135.

corporates in the aftermath of after the expansionary phase of late 1990s, which ended with the burst of the equity market bubble in the US. The trend of increasing corporate saving and declining capital spending is a long-term one, which started in the beginning of the 1990s.

#### IV

From the observations made above regarding the behaviour of the non-financial corporate sector, we find that contrary to the claims made by the advocates of liberalization, firms are less willing to invest in the era of liberalized finance. Moreover, there is a tendency to channelise increasing proportion of their funds into financial investments. The firms are showing a preference towards holding liquid assets. We try to explain this type of investment behaviour through a simple asset choice model.

#### **Model**

In our world agents are risk-neutral and live for two periods. In this world let us assume an agent to hold one unit of wealth at the beginning of the initial period. At the beginning of period 1 only two assets are available to her, a short-term asset with a yield of  $r_1$  per period per unit of nominal holding and a long-term asset with a yield  $r_2$ . We assume,  $r_2 > r_1$ .<sup>10</sup> The agent's asset choice made at the beginning of a period lasts for the period as a whole.

At the end of period 1 (or the beginning of period 2) there is an opportunity to hold an asset with a very high yield per unit of nominal holding, say  $r' > r_2 > r_1$ , but the opportunity occurs with probability  $p$ .<sup>11</sup> If the opportunity occurs, the agent converts her entire wealth into the high yielding asset. However, the agent undergoes a proportional capital loss  $c$  ( $0 < c < 1$ ), while converting the long-term asset, reflecting its illiquidity.

The expected wealth  $E$  of the agent after 2 periods would in case she holds the long-term asset in period 1 be,

$$E_l = p[c(1 + r_2)(1 + r')] + (1 - p)(1 + r_2)^2 \quad \text{(i)}$$

and in the case of holding the short-term asset in period 1,

$$E_s = p[(1 + r_1)(1 + r')] + (1 - p)(1 + r_1)^2 \quad \text{(ii)}$$

---

<sup>10</sup> In a world where  $r_2 < r_1$ , no one would hold the long-term asset, which cannot be an equilibrium outcome if the long-term asset is in positive net supply. The long-term asset is riskier due to 'capital uncertainty', therefore requiring a higher risk premium to be held over other assets. This risk arises because our long-term asset represents a motive for committing finance on a long-term basis. This corresponds to the finance needed for an irreversible investment project where capital is locked in for a certain period. The asset can be sold before its maturity, but only at some capital loss. The short-term-asset is 'liquid', i.e. 'more certainly realisable at short notice without loss'. (Keynes, 1930). This is the typical asset that would be held in a portfolio which an agent wants to operate in a 'fluid' manner, "to take advantage of opportunities for profitable investment, which may arise in the future but cannot now be foreseen." (Hicks, 1989). The yield of the short-term asset is lower than the long-term one because of its liquidity and low risk.

<sup>11</sup> Here  $p$  is not equivalent to any particular probability distribution, commonly assumed in models of choice under uncertainty. It is more of a notional concept. A further discussion on  $p$  would be undertaken later.

$E_l$  would always dominate  $E_s$  unless the capital loss  $c$  is substantial. To make the choice problem relevant, therefore, we assume,

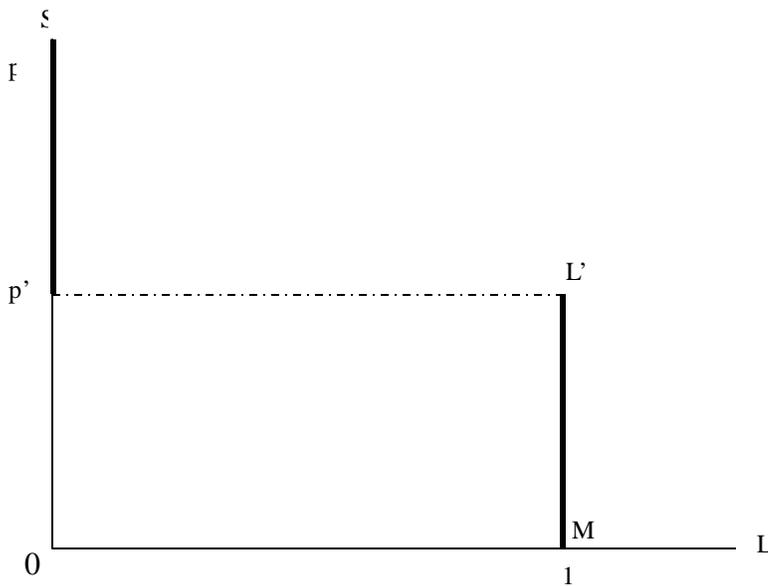
$$(1 + r_1) > c(1 + r_2), \text{ or simply, } r_1 > c r_2.$$

Now, it can be easily seen that if  $p$  is large enough the agent would hold all wealth in the short-term asset in period 1 despite  $r_2 > r_1$ .

There is a critical value of  $p$  at  $E_l = E_s$ ,

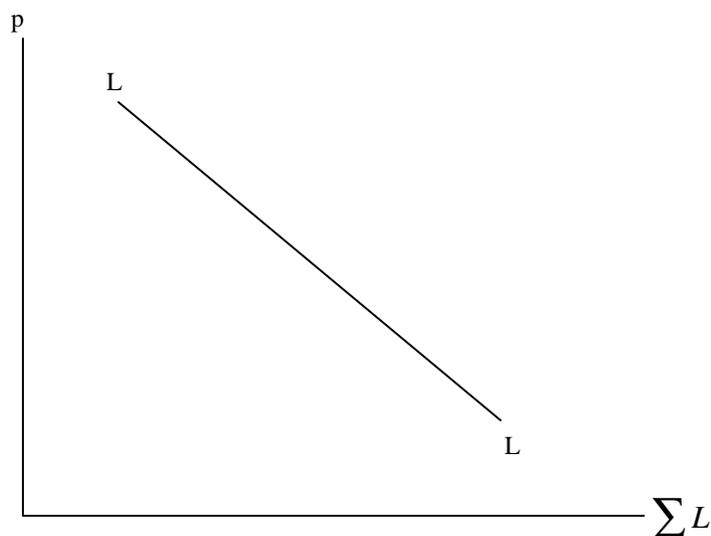
$$p' = \frac{(2 + r_1 + r_2)(r_2 - r_1)}{(r_2 - r_1)(2 + r_1 + r_2) + (1 + r')[(1 + r_1) - c(1 + r_2)]} \quad \text{(iii)}$$

Above  $p'$  the agent would not hold the long-term asset in period 1.



**figure III.1**

If the x-axis measures the proportion of wealth held in the long-term asset and the y-axis  $p$ , then the asset demand schedule for the agent looks like the step function  $Sp'L'M$  of figure III.1. Now, let us extend this relationship for the economy as a whole. We assume that the capital loss  $c$  varies across different agents in the economy. Other things remaining the same,  $p'$  would therefore vary across agents.



**figure III.2**

With large number of agents having different  $p'$ , a smooth downward sloping schedule like LL in figure III.2 can be derived by aggregating the individual step functions of figure III.1 over all agents in the economy. The LL schedule shows a negative relationship between  $p$  and the aggregate demand for long-term assets in the economy. The LL schedule depicts what can be called the 'fluidity' preference of the economy. An increase in the opportunities for making capital gains in the future, increases the desire of agents to operate their portfolios in a fluid manner and therefore decreases the demand for long-term and illiquid assets. Financial liberalization can be thought of as *enhancing the opportunities of making large capital gains, thus leading to a rise in  $p$*  through the increase in the number of both instruments and markets where speculative positions can be taken. This increases the fluidity preference of the economy as a whole. In terms of figure III.2, *ceteris paribus* it is an upward movement along the LL schedule whereby the demand for the long-term asset declines. The fall in the demand for long-term asset implies that its yield  $r_2$  has to rise in order to maintain its attractiveness. Thus, with financial liberalization the spread between the yield of the long-term asset and the short-term asset ( $r_2 - r_1$ ) would rise.

The crucial variable  $p$  in our model representing the probability of an opportunity to make a windfall gain is not suggested to be a calculable measure. In an uncertain world where opportunities for capital gains exist, it is conceivable that agents would form some 'sensible' expectations about the likelihood of such gains. What is assumed in the model is that agents would be able to make judgements regarding notional relative magnitudes of  $p$ , even though its actual values remain incalculable. *The central point is that an agent when allowed to speculate in more markets and over more instruments would find her opportunities for speculation to have increased. Following this she would consider her probability in making speculative gain to have increased too.* It is not relevant whether actually the probability increases or not. It might not

and under certain circumstances it might as well. What is important is the psychology of the agent that her chances have increased.

## V

The asset choice problem of the model can be applied to the investment decision of a firm. For a capital investment project some amount of finance needs to be locked in. This is comparable with the holding of an illiquid long-term asset with a yield equivalent to cash flows from the project. Just as the long-term asset can be sold before redemption only with a capital loss, similarly the investment project can only be abandoned before completion by incurring a substantial cost. Now, even if a comparison of the discounted stream of cash flows from an investment project reveals higher returns compared to the cost of capital, the decision to undertake the investment may be abandoned if the expectations of making higher gains in future increase due to financial liberalization. If the firm form such expectations, they will hold their funds in a *liquid* form and hence the demand for the liquid asset would increase. The spread between the required rate of return from the investment project and the yield of liquid assets would rise.

The relative liquidity of assets and the spread between their yields is linked to the time horizon of finance. Our model suggests that following financial liberalization, the speculative motive of making large capital gains in the future increases fluidity preference and raises the demand for short-term assets in an economy. This short-termism increases the required rate of return on long-term finance needed for capital investment. For a given expected rate of return, this can lead to an accumulation of liquid assets and slowdown in capital investment.

### **References**

Keynes, J.M. (1930), *The Treatise on Money, Vol. I & II*, Macmillan

Hicks, J. (1989), *A Market Theory of Money*, Clarendon Press, Oxford.

IMF (2006), "Awash with Cash: Why are Corporate Savings so High?", Chapter IV, World Economic Outlook, International Monetary Fund, April

Rakshit, M. (2006), "On Liberalising Foreign Institutional Investments", Economic and Political weekly, Vol. XLI # 11, March 18-24

RBI (2006), *Report of the Committee on Fuller Capital Account Convertibility*, Reserve Bank of India

RBI Bulletins, November 2005, March 2006 & September 2006, Reserve Bank of India

MoF (2005), *Report of the Expert Group on Encouraging FII Flows and Checking the Vulnerability of Capital Markets to Speculative Flows*, Ministry of Finance, Government of India