FOREIGN CAPITAL INFLOW INTO INDIA: DETERMINANTS AND MANAGEMENT

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Introduction

The 1990s witnessed a strong upsurge in financial flows all across the globe owing chiefly to financial deregulation in both the DCs (developed countries) and the less developed ones(LDCs). Rapid advance in communication technology and introduction of new instruments also contributed significantly.

BOX 1: Types of Capital Flows

The major categories of capital flow are -

Foreign Direct Investment (FDI): Investment that is made to acquire a controlling interest (usually 10 per cent of voting stock) in an enterprise operating in a country other than that of the investor. The investor gets an effective voice in the management of the company.
Foreign Portfolio Investment (FPI): It consists of Depository Receipts (DR), Foreign Institutional Investment (FII) in debt and equity (direct purchase of shares). The major institutional investors are mutual funds, asset management companies, pension funds and insurance companies.
Depository Receipts (DR) are equity instruments issued outside the country to nonresident investors by authorised overseas depository banks. DRs issued in the USA are American Depository Receipts (ADR), those issued elsewhere are Global Depository Receipts (GDR). Foreign Currency Convertible Bonds (FCCB) are subscribed to by nonresidents in foreign currency and are convertible into ordinary shares of the issuing companies. Among the emerging economies India ranks first in terms of the value of DR issued.
External Commercial Borrowings (ECB) includes commercial bank loans, buyer's credit, supplier's credit and borrowings from multilateral financial institutions such as International Financial Corporation (IFC) and Asian Development Bank (ADB).
Nonresident Deposits (NRD) *:* Deposits made in domestic banks by nonresident citizens of a country.
Capital flows can be classified as either *debt finance or equity finance*. Debt finance(bonds and bank loans) requires repayment of interest and principal in contractually fixed amounts. In equity finance, in contrast, foreign investors hold shares or have direct control of companies. Repayments in the form of profits and dividends are of variable amount depending on performance.

Under the programme of opening up the Indian economy the rupee was taken out of the strict control of the RBI and numerous measures were initiated to invite external capital into the economy. Theoretically speaking, this was a move away from the closed economy version of the Harrod- Domar model to the open economy one.(See Box 1). Results were quite dramatic.

From 1993-94 onwards ,except for a few intervals such as the 1998-99 Asian crisis and the 2002-03 global slowdown, net inflows into India have been steadily on the rise. To give a summary measure: the average increased from about Rs 200 crores during the 1980s to over Rs 12,000 crores during the 1990s. The figure for 2003-04 (Rs 73,461 crores) was almost six times that for 1993-04. (It should be remembered that capital flows to India have been meagre

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compared to those received by the East Asian or Latin American countries. The peak never crossed 4 per cent of GNP, compared to the average of 10-20 per cent for East Asia.)

The *composition* has also changed significantly over the years.(See Table 1) Dependence on aid has vanished and FDI, FPI, ECB and NR deposits have come to dominate. Among these again, there has been a gradual shift away from debt components to equity flows.(The proportion of non-debt has gone up from about 5 per cent in the second half of the 1980s to over 40 per cent during the 1990s.) This has been broadly in line with international developments. From the mid 1970s to the outbreak of the of the debt crisis of the 1980s, the percentage division between bank credit and FDI at the global level was 75-25. After the debt crisis bank lending(single or syndicated) collapsed and FDI became dominant. In the 1990s bank lending picked up again , but mainly to the Asian emerging markets, FDI flows to LDCs improved ,but most of it went to China, and portfolio investment by foreign institutional investors(FII) emerged as an important mode. These changes have gone hand in hand with a marked rise in the importance of private agents as borrowers.

Composition of capital flows to India are given below.

Table 1 :Composition of Capital Inflows to India

	1997-98	1998-99	1999-2000	2000-01	2001-02	2002-03
Total Capital Inflows(Net) (US $ billion)	9.8	8.4	10.4	10.0	10.6	12.1
Composition of Capital Flows (Per cent to total)						
1. Non-debt Creating Inflows	54.8	28.6	49.7	67.8	77.1	46.6
a) Foreign Direct Investment	36.2	29.4	20.7	40.2	58.0	38.5
b) Portfolio Investment	18.6	-0.8	29.0	27.6	19.1	8.1
2. Debt Creating Inflows	52.4	54.4	23.1	59.4	9.2	-10.6
a) External Assistance	9.2	9.7	8.6	4.3	11.4	-20.0
b) External Commercial Borrowings	40.6	51.7	3.0	37.2	-14.9	-19.4
c) Short-term Credits	-1.0	-8.9	3.6	1.0	-8.4	8.1
d) NRI Deposits	11.4	11.4	14.7	23.1	26.0	24.6
e) Rupee Debt Service	-7.8	-9.5	-6.8	-6.2	-4.9	-3.9
3. Other Capital	-7.2	17.0	27.2	-27.2	13.7	64.0
4. Total (1 to 3)	100.0	100.0	100.0	100.0	100.0	100.0

Source: RBI Report on Currency and Finance, 2002-03.

The rising volume of capital inflows (coupled with the sustained growth in inward remittances) exerted an upward pressure on the rupee, which continues to this day. For 1993-04 the correlation between net capital inflows and the real effective exchange rate (REER) of the rupee is 0.787, as reported in Sen and Dua.

Unfortunately, the surge in inflows has not been matched by a corresponding growth in the absorptive capacity of the Indian economy. The major reason is the persistent slowdown of industrial activities since 1997. At the same time RBI has been reluctant to let the rupee find its market clearing level under the circumstances. This has resulted in steady accretion to our foreign exchange reserves (FER) over the last few years. The value has now crossed $ 125 billion. In 2002-03 reserve accretion was as high as 3.4 per cent of GDP. India has now joined China, Singapore and Taiwan as one of the biggest holders of foreign reserves. Since “excess reserves” (excess over what should be held for precautionary purposes) entails substantial costs to the economy, RBI’s exchange rate policy (and the associated monetary measures) have come under serious criticism. We shall discuss this important debate in Sections 1.6 and 2.2.2..

In this study we shall concentrate mostly on foreign private investment flows only. Over the decade 1993-2003 aggregate investment (FDI + FPI) accounted for more than 55 per cent of total net flows and the share is rising. Foreign aid, grants, transfers and government borrowing will not be discussed.

Plan of the Paper: The paper is divided into two parts. The first part presents a broad survey of the salient issues relating to external capital flows. A simple extension of the standard Mundell-Fleming model is presented to highlight the role of different types of capital flows. Section One of Part Two analyses India's experience in greater detail and major policy questions are addressed in Section Two.

PART ONE : SURVEY OF ISSUES

The first issue is that of data reporting and definition.

1.1 Measurement of FDI

Unfortunately, there is considerable ambiguity in terminology for different types of international capital flows. The same terms are used to cover different categories and the same category is often referred to in different terms.

FDI inflow into India is recorded by the Economic Survey of the GOI under five broad heads (i) RBI's automatic approval route for equity holding up to 51 per cent, (ii) Foreign Investment Promotion Board's discretionary approval route for larger projects with equity holding greater than 51 per cent, (iii) acquisition of shares route (since 1996), (iv) NRI schemes of the RBI, and (v) external commercial borrowings (ADR/ GDR route).

India's definition used to differ from that of the IMF's Balance of Payments Statistics, as well as that of the UN's World Investment Report. IMF's definition includes reinvested earnings and subordinated debt, while the Report excludes external commercial borrowings. While the Economic Survey classifies ADR and GDR as FDI, RBI records them as FPI. Differences in definition can result in wide divergence in estimated values. For example, for 1992, Economic Survey gives the value 675, RBI gives 965 (both in Rs crores), for 1999 the figures are 16,868 and 9,338 and for 2000, they are 19,342 and 10,686 respectively. (Nagaraj, 2003).

Up to 1999-2000 RBI took FDI as mainly equity capital. Since 2000-01 in line with the IMF's Special Data Dissemination Standard coverage has been expanded to include, in addition to equity, reinvested earnings (retained earnings of FDI companies) and other direct capital (intercorporate debt transactions between related entities). Besides equity of incorporated bodies, equity capital includes equity of unincorporated entities (mainly, foreign bank branches in India and Indian bank branches abroad.)

As a result of this change, FDI data for India are now directly comparable with those for other countries. The earlier method caused FDI inflows to be systematically understated to quite a significant extent. In China reinvested earnings and intracompany loans together accounted for about 30 per cent of total FDI inflow in 1997, and about 51 per cent in 1998. (Srivastava, 2003). The revised method would bring India's figures closer to China's.

Undervaluation of FDI, as Srivastava points out, contributed to a false impression about India attracting "too little" foreign capital. Given the herd behaviour of investors this may have serious dampening effects on the incentive to invest in India. Therefore RBI's decision to bring its definition and measurement in line with international practice is a correct move that was long overdue.

BOX 2: Valuation of FDI into the USA

The Bureau of Economic Analysis (BEA) of the US Department of Commerce reports two estimates of FDI. Until 1991 FDIs were valued at their historical, that is original purchase prices. Now the BEA uses two different methods to place current values on FDI: the *current cost* method, which values the investments at the cost of buying them today, and the *market value* method, which is meant to measure the price at which the investments could be sold. Based on the former, the BEA's 1996 estimate of US net foreign wealth was (- $ 870.5 billion), whereas by the latter method, the figure was higher at (- $ 831.3 billion).

Source: Krugman-Obstfeld (2000)

1.2 Discriminating among Inflows

There is significant difference between different types of inflows in respect of benefits and costs. FDI is driven primarily by perception about the economy's long term prospects. For such investment exit is difficult due to high sunk costs. Therefore FDI has more stability or low *volatility*. A study in respect of 12 major developing economies and countries in transition confirmed that the volatility of FPI was generally higher than that of FDI. (UNCTAD, 1998)

Also it is FDI, and not bank loan or FII, that acts as the vehicle for transfer of technological knowledge and managerial skill across national boundaries. This has positive supply side effects and tends to crowd in local investment.

That volatility of capital flows is highly undesirable has been amply demonstrated by the Mexican crisis of 1994, East Asia of 1997-98 , Russia in 1998 and Brazil in 1999. Non-FDI flows are typically subject to herd behaviour and display strong volatility. A rising share of such flows at the cost of FDI significantly increases the chance of currency crisis and financial turmoil.

In terms of volatility the flows are usually ranked as follows (from least to most volatile)-

(a) Long term bank lending
(b) FDI
(c) FPI
(d) Short term bank loans(maturity period of less than one year)

Portfolio investment is actually a mixed bag with respect to stability. Pension funds and insurance companies follow a buy and hold strategy rather than a trading strategy in the emerging stock markets. So investment by these organizations implies relatively small liquidity risk. However, in order to tap these safe flows, developing countries must strive for good investment grading by the major credit rating agencies. Until recently, only Chile and Colombia in Latin America carried the investment grade stipulated by the portfolio guidelines of pension funds, while in Asia the corresponding set consisted of China, Indonesia, Korea, Malaysia, Taiwan and Thailand. The scenario has now changed in India's favour. In August 2004 the United Nation's Employees Pension Fund has registered itself as an FII in India, following the example of other big entities like the California Public Employees Retirement System.

Among the institutional investors hedge funds are the worst offenders from the angle of stability since, their name notwithstanding, they are famous for exposure to risk. Hedge funds are usually exempt from regulations because they cater to a small number of wealthy investors who are presumed able to look out for themselves.

Trade credit is one important capital item that is directly related to trade flows. It is a short-term item, but very stable. FDI is long term and stable. Trade credit is important "because regressions have been run with regressors that include all short term maturity liabilities and then find no predictive power of short term capital flows for a crisis." (Sen, 2003)

Volatility of FPI in India is treated in Section 2.1.2 of Part Two.

1.3 A Theoretical Framework.

The difference in impact of FDI and FPI on the national economy can be explained with the help of a simple modification of the standard Mundell- Fleming approach.

Capital inflow (KI) consists of 2 parts – FDI (D) and FPI (P).

D is autonomous , determined by long term factors. P has an autonomous component (A) and an induced part that responds positively to domestic interest rate (r).

D has 2 effects on domestic investment. A fraction t_1 contributes directly to capital formation in the current period (the fraction $(1-t_1)$ is *financial* FDI spent to acquire control of existing assets.)

FDI has also a "crowding in/out" effect on local investment. One unit of D induces (t_2 D) of domestic investment that would not have otherwise taken place. If there is crowding out, t_2 is negative.

Finally, investment caused by FDI inflow has import intensity of m.

There is no intervention by the central bank, exchange rate is fully flexible.

It is still a demand driven system , the supply side effects of FDI are absent.

The equations are –

(1) $S = sY$
(2) $KI = D + P = D + (A + kr)$
(3) $I = I_0 + tD - jr$
(4) $r = bY - g M$
(5) $mtD + d_1 Y - d_2 e = KI$

Where $t = t_1 + t_2$, the fourth equation is the LM curve and the left hand side of the fifth equation is CAD.

All coefficients are constant and those other than t are positive. In the presence of strong crowding out t may be negative.

Solving ,

$Y = (d_2 / Z) [(t-1) D + g (j + k) M + I_0 - A]$ ---------- (1)

$e = (1/ Z) [I_0 (d_1 - kb) + \{ t (1-m) (d_1 - kb) - (1-mt)(s+ d_1 + jb)\} D + kg (s+d_1+jb) M - (s+d_1 + jb) A]$

where $Z > 0$

We have the following comparative statics :

$dY/ dD = (t-1) d_2 /Z > 0$ if $t > 1$

$dY / dA < 0$, $d e / dA < 0$, $d e / dD$ of ambiguous sign.

Conclusion:

An increase in FPI causes currency appreciation and contraction in output.

An increase in FDI may lead to a rise in income if the direct plus indirect (crowding in) effects are strong enough ($t > 1$).

This contrasts with the standard Mundell- Fleming model where additional capital inflow is *always* contractionary because it leads to a fall in net exports through currency appreciation. The present model tells us that (i) FDI is desirable, not FPI
(ii) FDI is more beneficial if it is in real capital formation (higher t_1) and in sectors, such as infrastructure, that can pull in local investment (higher t_2)

Estimating the Growth Costs of Reserve Accumulation:

Equation (1) can be used to calculate the short run demand driven growth rate of Y under clean float (no central bank intervention).
Denoting by G_x the growth rate of x, we have , from (1)-

$G_Y = \alpha_1 G_D (D/Y) + \alpha_2 G_M (M /Y) + \alpha_3 G_I (I/Y) + \alpha_4 G_A (A /Y)$ --------(2)

If the addition to money supply due to unsterilised intervention by the RBI can somehow be netted out of the actual change in M , then (2) can be used to estimate the *counterfactual growth rate* – the growth that would have taken place if RBI had allowed full absorption by not intervening in the foreign exchange market. Comparison with the *actual growth* will yield an estimate of the cost of FER accumulation in terms of foregone (short term) growth.

Let us add two observations on the analysis (which are applicable to all Keynesian models)-

(A) *Balance sheet effect* of exchange rate change is not considered. Depreciation adversely affects the balance sheets of banks and firms (authorised dealers in foreign exchange)

who hold funds denominated in foreign currency. This will tend to negate the stimulating effect through trade balance

(B) Excess capacity in the economy may be due not to demand deficiency alone. Supply side constraints including credit unavailability may be equally responsible. Tightening of standards by bank regulators has induced Indian banks to cut down on lending to business and switch to government paper instead. In the presence of *credit rationing* changes in overall liquidity or interest rates do not convey much information about monetary policy.

The recovery from the 1990-91 recession in the USA was delayed because the burden of dealing with it fell entirely on monetary policy (fiscal policy being immobilised by huge deficit) and banks were reluctant to advance loans. Proponents of the "credit school" such as Bernanke and Gertler argue that the credit channel has not received the attention it deserves from macroeconomists. In 1983 Benjamin Friedman presented strong econometric evidence to show that the link between the volume of debt and GNP in the USA was tighter than that between money and nominal GNP.

Owing to the introduction of Liquidity Adjustment Facility(LAF) and other flexible instruments in recent years RBI is now better able to manage liquidity and set corridors for interest rates but pass through to the credit market remains low and as a result small and medium production units continue to suffer from credit crunch. Credit availability is not a problem for the ICE sector (information, communications, entertainment) as credit is not an important source of funds. (See the study by Bhalla et al. referred to in Pattanaik and Mitra,2001)

1.4 Push or Pull?

It has been debated whether the flows are caused predominantly by push factors (excess saving in the DCs looking for higher returns in the LDCs) or pull factors (improved overall performance in the LDCs after economic reforms adding to their hunger for investible funds from abroad). Both have been at work. Relaxation of financial regulation in the DCs has made it easier for investors and banks to lend abroad and that in the developing world has made it possible for them to do so. High and sustained growth in East Asia coupled with macroeconomic stability has attracted foreign investment. A *contagion effect* has also been in evidence. Successful post reform performance by one or two countries in Asia or Latin America has conferred positive externalities on neighbouring countries which received inflows because they happened to be in the same region.

According to Sen (2003), the data on aggregate private investment flows to India do not lend support to the hypothesis that push factors in the OECD economies are the cause of these flows. Chakrabarti (2001) reports that FII investment is more sensitive to returns in India in the post-Asian crisis period than they were before. The returns in major international capital markets have lower mean and higher variance than in India. More detailed discussion is presented in the section on FPI in India in Part 2.

The role of foreign capital in development is not a topic that commands complete consensus among economists. The major points of contention may be summarised as -

1.5 Advantages and Disadvantages of Foreign Capital

The chief advantages may broadly be summarised as-

(1) External capital can supplement domestic savings and stimulate economic growth. An open economy version of Harrod-Domar is invoked in this context.(See Box 3).

However, as Global Development Finance,2000, clearly states, economic development can be achieved without heavy reliance on foreign borrowing. For example-

(a) Countries with sustained growth in export earnings can meet critical import needs without recourse to borrowing. (Japan and Western Europe followed this path in the Bretton Woods era.)

(b) Countries can promote a high rate of domestic savings and ensure its proper utilisation by fostering the development of efficient financial markets. This calls for, among other things, adequate regulation of financial institutions and fiscal discipline of the government . East Asia successfully followed this route until the late 1990s. Actually, before 1990 the high performing Asian economies financed high investment mostly out of domestic saving. Global Economic Prospects (1998-99) reported that there is hardly any connection between non- FDI capital flows and growth in TFP, and that there may even be a negative association between the two in low savings countries. " Openness to capital flows is not the only, or even necessarily the most important, means of achieving faster growth. And openness to capital flows carries real costs in terms of the sharply increased risks of externally induced financial crisis."(Global Development Finance, 2000)

BOX 3 : Capital Inflow and Growth

Consider the national income accounting relation (ignoring the government sector for simplicity)

$$Y = C + I + (X - M)$$

$$\text{Or} \quad I = S + (M - X) = S + CAD$$

Where CAD is current account deficit .

This relation implies that in an open economy I can be raised above S by running a current account deficit (foreign borrowing or capital inflow).Thus external savings supplements domestic savings. The growth rate is-

$$g = (s + s^f) / v \quad \text{---------- (1)}$$

where $s = S/Y$, $s^f = CAD/Y$, v is the incremental capital output ratio.

Equation (1) has been used to conclude that the larger the CAD or external capital inflow, the higher is the growth rate of an economy. However, it must be remembered that (1) shows only the supply side impact of investment with full employment of resources. In the presence of demand deficiency and excess capacity capital inflow need not be growth promoting. The impact on output and investment may actually be contractionary due to currency appreciation. Even under full employment, (1) is a highly incomplete macro model as it does not spell out the determinants of saving or investment or trade deficit.

For the "virtuous cycle of capital" (external saving raises domestic investment and income, which stimulates saving, which eventually eliminates foreign debt) to hold three conditions must be satisfied-

(a) I is to be augmented, not C
(b) I must be in tradables
(c) Flow of capital should be stable and predictable.

Due to volatility, significant part of non-FDI flows has to be kept as reserve, reducing availability for investment. Even for FDI, the part that does not contribute to real capital formation does not add to productive capacity. So the actual nature and composition of external capital is of crucial importance. The analytical exercise of Section 1.3 is an attempt to capture these features.

(2) Consumption smoothing

International borrowing and lending enable countries to neutralise fluctuations in income and attain smooth consumption streams. This improves welfare.

Estimates of the benefits of consumption smoothing for the developed countries vary widely, ranging from a very small per cent of lifetime consumption to a very significant per cent. This highlights the difficulty of measuring such gains. There is a more serious problem. The model of consumption smoothing through international borrowing and lending would lead one to expect: (1) the behaviour of aggregate consumption should show less volatility than aggregate income, and (2) growth of consumption across countries with integrated capital markets should be more strongly correlated than growth of income. Empirical research has failed to find support for these predictions. Bayoumi's (1997) analysis of the experience of 21 OECD countries concluded that there is little evidence in favour of consumption smoothing.

As to the LDCs, capital inflows have been markedly pro-cyclical so that the gap between boom-time and bust-time consumption was actually widened and not narrowed.

(3) The lenders gain from higher return and better international portfolio diversification.

Disadvantages of Foreign Capital or Why is "Too Much Capital" a Problem?

Since the Mexican crisis a voluminous literature has developed on the actual or potential problems associated with large capital flows to developing countries. They can be summarized as:

(a) Appreciation of real exchange
(b) Accumulation of FER
(c) Widening of CAD
(d) Monetization
(e) Financial crisis

A brief discussion of each of these follows.

(a) *Exchange Appreciation*

Inflow leads to currency appreciation, which hurts the tradables and hampers the programme of integration with the world economy. India has been successful in pursuing a policy of managed float with emphasis on avoidance of persistent over and under valuation of the rupee. In fact, since August 1994 (when the rupee became fully current account convertible) the real effective exchange rate has remained remarkably stable. The *range* of REER over 1990-91 to 2002-03 was below 8 per cent of the average.

In most Latin American countries inflow has been accompanied by marked real appreciation. This has not occurred for the Asian economies, with the exception of Philippines.

(b) FER Accumulation

The most important policy objective of the RBI in the reform era has been the maintenance of viability in the BoP. The primary concern was to avert the possibility of a payments crisis. This was sought to be achieved through (a) keeping the current account deficit CAD at a low level (b) maintaining the composition of capital inflow in favour of non-debt flows like FDI and FPI, (c) accumulating substantial stock of FER on the presumption that inadequate reserves may trigger off a currency crisis , as was the case in many such episodes. The economy's shock absorption capacity has improved dramatically in recent years, judged by the volume of reserves in relation to imports, short-term debt and nondebt liabilities.

How much FER should a country hold at any point in time to counter speculative attack on its currency? There is no unique answer, but one criterion is the *import cover* of reserves (= number of month's imports that the FER stock can buy). Another indicator is the amount of debt in relation to FER. The *Guidotti-Greenspan rule* suggests that reserves should at least equal the amount of

foreign capital that may contractually leave within a year. Lenders and investors would then presumably be less inclined to withdraw funds as a pre-emptive measure during periods of turmoil.

Adequacy Indicators for India

External debt to national income fell from 28.7 per cent in 1990 to 21.0 per cent in 2001, the proportion of short term to total external debt (to total gold and foreign exchange reserves) fell from 10.2 per cent (365.4 per cent) to 2.8 per cent (5.4 per cent).(Over this period total external debt increased by 17.5 per cent). The import cover, which was less than two weeks during the crisis of 1991, now exceeds one year. (In sharp contrast, the combined total internal debt of centre and states was 76.9 per cent of GDP in 2003 in comparison to 61.7 per cent in 1990-91.)

Although reserve accumulation serves some useful purpose, it is not costless. The principal cost is the forgone return on domestic investment The optimum stock should be determined by a balancing of the benefits and costs. India's stock of $125 billion in December 2004 appears too large relative to what would be needed to cushion shocks to export earnings and import outlays and to provide insurance against financial crisis, given that capital controls continue.

The costs of FER accumulation and the macroeconomic implications of capital inflow into an economy suffering from demand deficiency are thoroughly examined in Rakshit (2003). He concludes, " From a macroeconomic viewpoint, government policies in a demand deficient situation should try to ensure that the economy's expenditure on capital accumulation is met through domestic, not foreign finance." FDI can be beneficial if it leads to additional investment which otherwise cannot be undertaken or if it acts as a vehicle of better technology or other positive supply side factors.

(c) Current Account Deficit

Capital inflows may lead to a widening of the CAD, and this may push foreign indebtedness to unsustainable levels. Consequences will be particularly adverse when the flows are linked to a consumption boom in the economy. In this case the (I – S) gap widens through a fall in S. The interest payment for debt servicing rises, adding to the CAD. As there is no addition to the capital stock, the ability to make future repayments is compromised. As net foreign debt crosses a critical value (unknown ex ante), the risk premium of the country may increase and access to international capital markets in future may get restricted. Although Williamson's rule of thumb suggests a safety limit of 40 per cent for the debt-GDP ratio, Mexico's crisis started when it was "only" 8 per cent.

The adverse impact on CAD may be countered through fiscal consolidation (reduction in budget deficit).But a reduction in government spending may have its own adverse impact on output and employment in a situation of demand deficiency. Furthermore, expenditures and taxes should be set to reflect long-term goals, rather than as means to counter volatile fluctuations in global capital flows.

Prudent fiscal policy is by itself not enough to avert crisis, as demonstrated by the experience of East Asia. However, with public deficit under control ,the financial system can handle inflows better.

(d*) Effect on Money Stock*

When the central bank intervenes in the foreign exchange market to manage the exchange rate, capital inflow causes the monetary base to expand. The resulting rise in money supply may cause inflationary pressures to develop and real exchange will appreciate. To counter this central banks often undertake *sterilisation* operation in the form of (i) open market operations (sale of domestic bonds in the case of inflow), (ii) increase in the cash reserve requirement (CRR) of commercial banks. But each of these methods has its costs.

When the central bank resorts to sale of government securities to reduce domestic liquidity, it is effectively giving bonds to the public in exchange for foreign reserves. Since the interest on the

domestic debt issued is typically higher than the yield on FER (= the yield on short term US Treasury bills in which FER is usually held) this involves a cost, known as *quasi fiscal cost* of sterilisation. This can be quite substantial. Annual estimates of this cost in Latin American countries during the 1990s range from 0.25 to 0.80 per cent of GDP. (Reisen,1996) Also open market sale of domestic bonds keeps the domestic rate of interest from falling. Since the interest differential is prevented from narrowing, capital inflow is prolonged.

If, instead of OMO, sterilisation is done through an increase in CRR, the cost is transferred to commercial banks, for whom reserve requirement is a burdensome tax on intermediation. The lending rate may be pushed up, causing a contraction in aggregate demand.

If the central bank allows the exchange rate to appreciate in response to capital inflow, money supply stays unchanged. This lowers the potential for inflation. The appreciation itself is deflationary. The heavy capital inflows of the 1990s have been accompanied by slightly higher levels of inflation in Asia, while inflation has fallen in Latin America due to sharp real appreciation of currencies.

(e) Financial Crisis

Increased openness to international capital flows has been associated with an increasing frequency of financial crises. (Kaminsky and Reinhart,1999; Bordo and Eichengreen,1999)The first study established, for 5 industrial and 15 major emerging economies over the period 1980-1999, a 10 to 15 per cent annual probability of a BoP crisis. One third of these crises are “twin” banking and currency crises. Pure currency crises have declined as countries have moved towards more flexible exchange rate systems, but banking crises have loomed larger with the dismantling of capital controls and regulations. The average cost of an emerging market currency crisis is estimated at 8 per cent of foregone GDP, rising to as high as 18 per cent when a banking crisis occurs simultaneously. For Indonesia in 1997 the cost was more than 30 per cent. Lustig (1999) estimates that each percentage point fall in growth raises the poverty rate by 2 percentage points.

Recent crises in the LDCs share several common features. First, many of them have been preceded by liberalization of the economy, particularly of the financial sector. Second, most of the episodes were triggered by sharp increase in capital inflows followed by equally sharp reversals and consequent financial panic. Third, these reversals are frequently, but not invariably, associated with deterioration of macroeconomic conditions of the recipient countries. This deterioration often results from the effects of the capital inflow itself- such as, currency appreciation, excessively rapid credit expansion, and bubbles in asset prices.

The Asian experience has shown that when large funds are intermediated through weak and weakly supervised banks , there is the distinct possibility that those funds will find their way into risky ventures that promise high returns or into speculative financing of real estate. (Weakness of a bank is revealed by low values of net worth and ratio of capital to risk adjusted assets.) The implicit or explicit government guarantee to suppliers of finance aggravates the moral hazard problem.

Although short term borrowing by corporations involves significant risk, such risks are considered to be more serious in the case of banks. Unlike a commercial bank the typical corporation tends to be small and its foreign currency liability tends to be hedged by export receipts or other real assets. However, the Asian crisis has shown that the consequences of unhedged foreign currency borrowing by large business houses may be very adverse.

Following McKinnon and Pill (1996) some channels may be identified through which large capital inflows may worsen the risk structure of the banking system of a liberalising economy:

(i) Credit risk- risk of default by the borrower increases as bank lending rises in the wake of a sudden rise in the availability of loanable funds.

(ii)Settlement risk- it arises if the payments system is incapable of handling the magnitude of cross-border settlements.

(iii)Foreign exchange exposure increases dramatically since the inflows are foreign currency denominated, while the banks have experience only in domestic lending in local currency.

(iv)Liquidity risk arises if the inflows are large relative to domestic capital markets. If the banks invest in real estate, prices may be driven up causing an inflation in asset and stock prices. FPI in Asia and Latin America caused sharp increases in stock and real estate prices, creating a

situation in which speculation and herd behaviour flourished. Lack of investment in tradables damages the economy's capacity to earn foreign exchange and thus renders future debt servicing and non debt outflows more difficult to manage.

(v)Market risk arises when after a crash in asset prices the market value of a bank's assets takes a plunge before it can be liquidated or offset in some way.

(vi)Supervisory risk arises because large inflow of foreign funds causes the task facing the regulators to magnify both in magnitude and complexity. Foreign banks often act as a source of contagious transmission of crisis. In response to crisis in one country , multinational banks might attempt to liquidate positions in other regional economies either to enhance liquidity or reduce portfolio risks. Managing such banks is one of the trickiest problems facing the domestic supervisory authorities.

For preventing financial instability, regulations that limit the exposure of banks to the volatility of equity and real estate markets, as well as ensuring risk based capital adequacy are in order; but the flip side is that these policies may promote *disintermediation,* which refers to new institutions that develop to bypass these restrictions. Moreover, greater control on banks may amount to a reversal of the trend of financial liberalisation currently in progress in LDCs.

The impact of capital inflow on the banking sector of the Indian economy has been studied by Kohli (2003). The findings are discussed in Part Two.

Private Sector Overborrowing

Borrowers from the LDCs (emerging economies) face a highly imperfect international capital market due to informational gaps and perception of country risk. An increase in external liability adversely affects an economy's credit rating. The implication is that borrowing from abroad by an economic agent has an element of negative externality—it raises the cost to other borrowers in the economy. The marginal social cost of external finance is higher than marginal private cost. This calls for control on inflows. Figure 1 illustrates

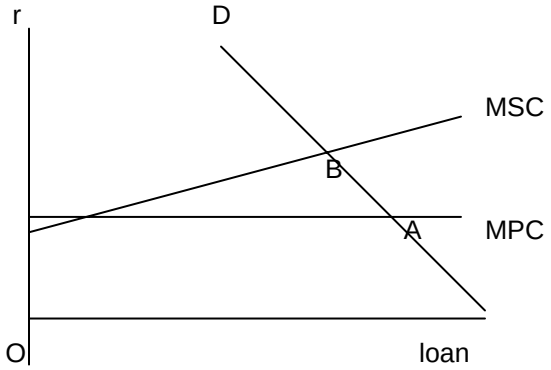

Figure 1: Private Overborrowing

In the figure constant interest cost to a private borrower (marginal private cost) is shown by the horizontal line. Due to negative externality (akin to congestion externality on roads) marginal social cost is higher, given by the upward sloping line. D is the demand for loans. The unrestricted private optimum at A involves overborrowing relative to the social optimum at B. So control on private borrowing is desirable from the social point of view.

The controls on borrowing need not be quantitative, but may be in the form of *tax on foreign loans*. Chile, for example, in 1991 imposed a reserve requirement on international loans routed through the banking system. 20 per cent of all incoming portfolio capital was required to be deposited with the central bank in a non-interest bearing account up to a period of one year. This in effect constituted a heavy tax on inflows of short maturity. The main disadvantage of such measures is that capital flows may be disguised in other forms, through over invoicing of imports and under invoicing of exports.

Economists have subjected the Chilean policy to intense scrutiny. (Gallego, Hernandez and Scmidt-Hebbel, 1999; Edwards, 1999) The total value of capital flows fell immediately after the introduction of the tax, but picked up thereafter. As investors found ways of evading by relabeling the capital inflows as trade credit or loans supporting FDI, the authorities responded with stricter vigilance and by raising the coverage periodically. Although the long term impact on aggregate flows seems to have been insignificant, the tax was effective in lengthening the contracted maturity of capital inflows. The share of short term debt (contracted maturity of one year or less) fell dramatically from 96.3 per cent in 1988, to 28.9 per cent in 1992 and to 2.8 per cent in 1997.

Another response to soften the impact of excessive capital inflows has been to lower the barriers to capital outflows. Recently the Government of India has taken similar measures. However, to the extent that easing of restrictions on outflows is viewed as a step towards fully open capital markets, the resulting rise in confidence of international investors may actually stimulate inflows. Indian authorities are fully aware of this dilemma (RBI bulletin, June 2004)

1.6 Optimal Level of Reserves

A country's optimal level of reserves will depend on various factors such as its exchange rate regime, the size of CAD and its concern about fluctuations in BoP. The chief determinants may be listed as-

(a) Exchange rate regime: In general, a fixed rate regime will require a higher stock of reserves than that of flexible rates. "Fear of floating" induces many countries to try to maintain an exchange regime intermediate between fixed and flexible rates. This calls for adequate reserves to fight undesirable movements in the exchange rate. Wide swings in the exchange rate increase the riskiness of a country's trading. Although forward markets can be used to hedge against this risk, the cost of hedging is higher when fluctuations in the rate are higher.

Traditionally, the policy autonomy result states that fixed exchange regime in the presence of mobile capital entail loss of control over domestic money supply. Flexible exchange restores this control, but capital mobility, as pointed out by Frenkel and Mussa (1983), still reduces the effectiveness of monetary policy. Boost to aggregate demand through monetary expansion will be partly dissipated in rise in imports financed by capital inflow. Besides, quick adjustment in the nominal exchange rate in response to change in monetary policy may lead to rapid adjustment in wages and prices and the effect on output and employment may be neutralised. This explains the widely observed aversion to clean floating on the part of national governments.

(b) Current account deficit: Reserves are needed not just to cover maturing debt but to meet obligations created by large CADs as well. An empirical study by Bussiere and Mulder (1999) showed that the Guidotti-Greenspan rule (reserves = short term debt) is most effective as a check against crisis when the current account shows a surplus of 2 per cent as proportion of GDP. As the deficit in the current account rises, required reserves increase at an increasing rate.

(c) Variability in BoP and volatility of capital flows: Frenkel (1983), Frenkel and Jovanovic(1981) found that the greater the variability in the BoP (excluding change in reserves), the greater the observed level of reserves. Volatility of capital flows is an important factor because a larger share of FDI and other stable items calls for a lower level of precautionary balances.

Reducing the Cost of Reserves

At present most countries either hold substantial reserves (and put them in risk-free low-return assets like US Treasury Bills) or hold inadequate reserves. Feldstein (1998) suggested that a fraction of reserves can be invested in higher risk higher return securities. The added risk is likely to be less than that of inadequate reserves.

An alternative is to insist that banks must hold more liquid foreign assets. This will reduce the government's costs and also the inherent moral hazard involved in rising private short

term debt and high level of public reserves. But ensuring that banks are indeed complying with the requirement may be a problem in the developing countries.

Analysis of Optimal Reserves

The world's top reserve holders are all located in Asia. At the end of 1994 the share of the Asian economies in global reserves (minus gold) was 30.5 per cent . This went up to 38 per cent in May 2002.The value of global reserves in nominal terms has almost doubled over the same period. Japan is the biggest holder, followed by China, Hong Kong, Taiwan, Singapore, South Korea and India. (China's large and growing reserves may be explained by concerns about the solvency of its banking system. In May 2002, the governor of China's central bank said that 25-30 per cent of all bank loans were not being repaid. Standard & Poor assessed the situation to be far worse, with half of all loans classifiable as nonperforming. (Wall Street Journal, 10 May, 2002). Popularity of FDI in China is partly due to the fact that it can bypass the banking system.

Aizenman and Marion (2002) explored the problem of high foreign reserves of Asian economies (excluding Japan) both empirically and theoretically.

They ran two regressions (dependent variable—deflated reserves) for a panel consisting of 122 developing countries over 1980-1996. The first regression confirmed the significance of population size (scale variable) and real GDP per capita, volatility of real export receipts and vulnerability to external shocks measured by openness and exchange rate flexibility. These five variables accounted for 88% of actual reserve holdings. The second equation added political uncertainty and political corruption as explanatory variables and found that each has a negative effect on reserves. However, the equations systematically under-predict reserves for Far Eastern countries after 1996, suggesting that behaviour has changed since the Asian Crisis.

The authors also present two theoretical models to analyse international reserve holdings. In the first model the driving force is the need to smooth consumption in the face of productivity shocks, conditional access to global capital markets and costly domestic tax collection. In the first period, public expenditure and reserve build-up are financed by taxes and foreign borrowing .In the second period, spending on public goods and debt repayment must be backed by taxes and available reserves. Subject to the government budget constraints, foreign debt and foreign reserves are chosen in the first period to maximise the intertemporal utility of consumers (risk neutral). The important result to emerge is that demand for reserves and foreign borrowing both depend positively on the size of fiscal commitments, degree of openness and the variability of productivity shocks.

The second theoretical model departs from the standard expected utility framework in using the concept of *loss aversion* which is the tendency of agents to be more sensitive to reductions in income than to increases, relative to some reference point. A policy maker who is maximising the utility of loss averse agents will choose a larger stock of reserves as buffer than in the standard analysis. One interesting result emerges: even when there is a sizeable gap between the return on domestic capital and the return on the safe asset in which reserves are usually kept (the equity premium), it may still be optimal to maintain large reserves if agents are loss averse.

In addition to the demand side factors emphasised by these models, supply side factors also contributed to the accumulation of reserves by the Far Eastern countries. The most important ones are the growth in international liquidity stemming from the current account deficit of the USA and the willingness of international investors to finance investment in these countries.

There is another possibility which seems to be more relevant for India. Instead of being an optimising choice, reserve build up may simply be a *residual of exchange rate policy*. RBI Report on Currency and Finance (2002-03) states, " It is important to note that the level of reserves held by any country is really a consequence of the exchange rate policy being pursued." If capital inflows are added to reserves ("banked") there is no change in trade deficit and no change in the exchange rate. If they are "spent" through a rise in imports, the deficit grows in equilibrium and the currency appreciates. This harms the country's exchange rate sensitive sectors. The policy of preventing exchange appreciation has been criticised as

exchange rate protectionism. (Lal ,Bery, `Pant,2003) A weaker rupee works to the advantage of exporters and import competitors, who feel threatened by freer imports and curb on explicit export subsidies.

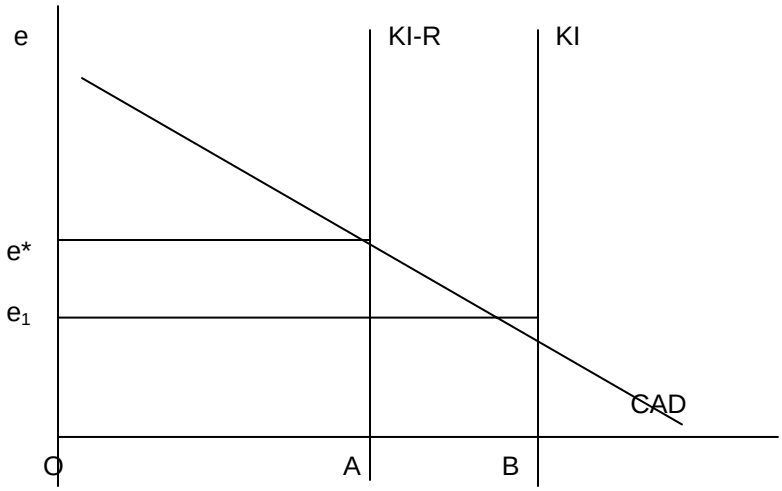

Figure 2 : Supporting a Target Exchange Rate

The equilibrium condition for BoP when the central bank intervenes is :

CAD = KI – R

Where CAD : current account deficit, KI: net capital inflow, R: net addition to FER
In the figure , CAD is drawn with a negative slope because depreciation (higher e) is taken to improve the trade balance. Without intervention the exchange rate will settle at e_1. If the authorities want to maintain the value e^* , AB amount of dollars will have to be purchased and added to reserves. If CAD stays put (no change in absorption of foreign exchange through net imports) but KI keeps on rising, then R will have to rise continuously if the exchange rate target is not revised appropriately.

Intervention in the currency market to prevent appreciation (and to build up reserves for precautionary purposes) may lead the country into trap. FDI is not likely to be very sensitive to the stock of FER, but FPI may well be, because a larger stock gives a boost to the confidence of foreign investors. High inflow of FPI prompts RBI to add more to reserves ,which in turn stimulates further inflow. Currently India seems to be caught in such a trap.

The broad principles that have guided RBI's exchange rate management are-

(1) Careful monitoring of the rate without a fixed or pre-announced target rate or band, flexibility in the rate together with the ability to intervene if and when necessary.
(2) Building of a level of reserves taking into account not only anticipated trade deficits but also unanticipated shocks including possible reversals.

RBI Bulletin of June 2004 states, " The overall approach to the management of India's foreign exchange reserves has reflected the changing composition of the BoP and the liquidity risks associated with different types of flows….. India's forex reserves continue to be comfortable and consistent with the rate of growth, the share of the external sector in the economy and the size of risk adjusted capital flows."

1.7 Summary

In this part of the essay we have discussed in brief the multifarious issues that are thrown up by capital flows to LDCs. The chief advantages and disadvantages of reliance on foreign capital were laid out. The problem of "optimal reserves" has become a hotly debated topic in India in the wake of strong and sustained FII investment. Costs and benefits of reserve accumulation were examined. Some recent work in the area, theoretical as well as empirical, was briefly summarised.

The standard Mundell-Fleming analysis was extended to show the differential impact of different types of capital inflows. More portfolio flow reduces national income ,while greater direct investment can raise income if the direct plus indirect investment creating potential is strong enough. The policy implication is that in the presence of underutilised capacity, (a) FDI is to be encouraged, not FPI (b) FDI should be for capital formation and in activities, infrastructure for example, that have strong crowding in effects on local investors.

The framework suggests a way for estimating the growth cost of the exchange rate policy currently being followed in India.

PART TWO

SECTION ONE : INDIA'S EXPERIENCE WITH INFLOWS

Foreign investment flows into India are presented in the following table

Table 2: Foreign Capital Flow to India

		2003-04(P)	2002-03(R)	2001-02(R)
A	Direct	4675	4660	6131
(a)	Equity	2387	2700	4095
(b)	Re-invested earnings	1800	1498	1646
(c)	Other capital	488	462	390
B.	Portfolio	11,377	979	2021
(a)	FII	10,918	377	1505
(b)	DR	459	600	477
Total (A+B)		16,052	5639	8,152

P: Provisional ; R: Revised
Source: RBI Annual Report, 2003-04

In the following section we take up direct and portfolio flows into India in the post-reform years for detailed analysis and comments.

2.1.1 FDI in India

India's share in global FDI increased from 0.5 per cent in 1992 to slightly above 2 per cent in 1997 and has stayed around that value. In absolute terms inflow declined in 2003-04 after strong growth in the previous two years. UNCTAD's ranking of countries on the basis of FDI relative to GDP for the period 1998-2000 is 119 for India and 47 for China. The corresponding figures a decade ago were 121 and 61 respectively. In 2002 China accounted for 92 per cent of FDI to the East Asia and Pacific Region and 32 per cent of the total going to the developing world. India was the largest recipient in South Asia.

Two surveys in 2002 -one by the World Bank's Multilateral Investment Guarantee Agency and the other by Kearney ,also of the Bank (based on interviews with 1000 corporate executives worldwide)- confirm that the three main drivers of FDI in LDCs are: (i) investment climate (ii)

return on investment and (iii) commitment to free trade. Kearney presents a FDI Confidence Index

Table 3 : FDI Confidence Index

	September 2002	September 2001
China	1	2
Mexico	9	5
Brazil	13	3
India	15	7
Thailand	20	14

Source: Global Development Finance, 2003.

Three countries -Argentina, Malaysia and Turkey have dropped out of the top 25. China has overtaken the USA as the most preferred destination. In discussing the case of India, Asian Development Outlook (2002) states that fiscal profligacy (of the centre and the states) creates a climate not conducive to private investment. While low labour cost boosts the return on investment, this is outweighed by significant disadvantages in power costs, interest rates, customs delays, infrastructural bottlenecks and regulatory encumbrances vis a vis other emerging economies.

BOX 4: China and India

Both in absolute as well as per capita terms China receives about ten times more FDI than India. It has now overtaken the USA as the most preferred destination. More than 30 per cent of total global FDI flow to the LDCs goes to China alone, compared to India's 2.9 per cent. The major factors cited to account for this yawning gap are-

(a) Earlier initiation of reforms in China

(b) Higher rate of growth and efficiency of the Chinese economy. Manufacturing productivity is 1.6 times that of India and, in some sectors, as much as 5 times. (McKinsey,2002)

(c) Flexible labour laws and a better labour climate in general

(d) Higher literacy and better infrastructure

(e) Product reservation policy for small scale industries in India that does not allow FDI in products such as garments and toys

(f) More effective Chinese business network abroad and greater participation of the overseas Chinese community in domestic investment

(g) Fiscal profligacy of the GOI and the states, which creates a climate not conducive to private investment

(h) A situation of increasing returns where ,after a critical mass has been achieved, a country gets more capital the larger is its current stock.

Note : China's spectacularly high value of FDI should be interpreted with some caution, because it is now well known that a substantial part - as high as 40 per cent according to the Global Financial report, 2002, of IFC - represents "roundtripping", recycling of domestic funds through Hong Kong and Macao to take advantage of concessions given to foreigners and nonresident Chinese.

In an empirical exercise undertaken by the RBI to identify the major factors influencing FDI flows into and out of India growth in world GDP had a large positive impact and the gross fiscal deficit to GDP ratio had a negative impact on inflows. (Fiscal deficit is a good proxy for the credit rating of the economy.) an unidirectional causal relationship was also found running from FDI to export growth in India. Changes in export growth also stimulated FDI inflows after a lag of two quarters. (Report on Currency and Finance, 2002-03)

The following table gives the industry distribution of FDI into India over the past few years.

Table 4: Industry Distribution of FDI in India.

Industry	1995-96	1996-97	1997-98	1998-99	1999-2000	2000-01	2001-02	2002-03
Chemical & Allied Products	127	304	257	376	120	137	67	53
Computers	52	59	139	106	99	306	368	297
Engineering	252	730	580	428	326	273	231	262
Electronics & Electrical Equipment	130	154	645	228	172	213	659	95
Finance	270	217	148	185	20	40	22	54
Food & Diary Products	85	238	112	19	121	75	49	35
Pharmaceuticals	55	48	34	28	54	62	69	44
Services	100	15	321	368	116	226	1,128	509
Others	348	292	720	262	553	578	395	309

Source: RBI Report on Currency and Finance, 2002-03

The following discussion draws on Nagaraj (2003).

Due to India's tax avoidance treaty with Mauritius that country has emerged as a conduit for many US firms. In 2003-04 Mauritius was the largest source, followed by the USA, Netherlands and the UK.(RBI bulletin, June 2004.)

Our broad brush observations on FDI into India are summarised as follows:

(1) While the majority of the approvals has been for infrastructure , the actual inflow has preferred consumer durables and automotive industries. A number of automobile MNCs have set up assembly and manufacturing centres. The same is also true for refrigerators, washing machines and electronic consumer durables. However, most auto firms, except Hyundai and Ford, have set up minimal facilities to assemble their imported CKD kits. This has kept technological spillovers through domestic value addition at a low level. The way out is to impose local content requirements, but this may be difficult under the TRIMS agreement of the WTO. Many states in the USA insist on job creation in exchange for incentives provided to Japanese auto firms.

Hyundai has successfully used local material to build a small car that is competitive both in price and quality. Reportedly, the company proposes to use its Indian base as a major hub of its global operations. Samsonite is planning to close its European plants and expand operations here. There are similar reports from ABB(electrical equipment) and Cummnis (diesel engine manufacturer).

(3) About 40 per cent of the inflow has been used to acquire existing industrial assets and their managerial control.(In the case of Brazil the ratio was as high as 70 per cent, boosted by the privatisation drive of the 1990s). M&A in India showed an increasing trend all through the 1990s. Interestingly, the proportion of total funds devoted to fixed capital formation is lower for foreign firms than for domestic private sector companies. The social benefit will be meagre if both capital formation and technical spillovers remain insignificant. The emerging trend is, however, encouraging.

(4) Initially, there was great fear that indigenous firms will be completely wiped out by the entry of MNCs. To some extent this has indeed been the case, in the aerated drinks market in particular. But several efficient domestic companies have successfully withstood the onslaught. In some cases domestic firms have severed their ties with foreign collaborators after some years of association. For example, in the two wheeler industry TVS, Kinetic and LML have terminated collaboration (technical and / or financial) with Suzuki, Honda and Piaggio respectively. Kawasaki-Bajaj motorcycles have been replaced on our roads by Bajaj motorcycles, Godrej is no longer tied with Procter and Gamble and Titan has become an international name in wristwatches after ceasing to collaborate with Timex.

(5) Although FDI in infrastructure is likely to have the maximum crowding in effect on local investors, infrastructure has on the whole failed to attract foreign capital. Foreign investment in power generation (which had the highest share of approved FDI) was lured by the prospect of a high and assured rate of return. But the collapse of the Enron deal showed that this may not turn out to be the case. This had an adverse impact on capital flow into this sector.

Other reasons were equally important. The projected acceleration in demand for power that formed the basis for such large FDI approvals did not materialise, owing chiefly to the deceleration in industry since the mid 1990s.Also, it became clear that the problem with most state electricity boards was not higher generation costs compared to foreign companies (invariably using imported components), but pricing and recovery of user charges. Despite all the much publicised plans for restructuring and reform, average revenue to cost ratio has failed to show any improvement in the power sector.

Pricing of infrastructure services will continue to be a political decision with the result that foreign firms with short payback periods may not find it worthwhile to invest on a big scale.

(6) There are reasons to suppose that the size and growth potential of the domestic market were initially overestimated by foreign firms. An estimated core of about 200 million consumers with purchasing power close to that of the industrialised economies has been, after a decade, cut down to a quarter. This realisation, reportedly, led some MNCs to shut down business here, while others staggered their expansion plans. This has dampened inward FDI and prompted some firms who are already here to reorient their policy. It is reported that Ford is now thinking of using its Indian plants for catering to foreign markets. In 2002 it exported 30,000 CKD kits to China and South Africa.

The question, however, remains: why is FDI not rushing in to utilise cheap labour and material for export of labour intensive manufactures? That type of investment has acted as the principal motor driving China's spectacular success in recent years. Broadly two reasons may be given.

(i) China , owing chiefly to government effort spread over years, has built up an export infrastructure of high quality. In India not only was export promotion neglected in the past, even during the last decade of broad ranging reforms the share of infrastructure in capital formation has actually been going down.

(ii) Another telling difference stems from the fact that high exports, even when the products are competitive in terms of cost and quality , cannot be attained and sustained without the help of efficient international distributors. Strong links between domestic manufacturers and international trading houses and retail chains with their purchase offices and testing laboratories were very important in promoting manufacturing exports from South Korea and Taiwan. China has very effectively used Hong Kong's superb commercial facilities for this purpose. While it is obviously not possible for India to replicate this, strategic investment in export infrastructure and building up links with international trading houses should receive careful attention. Simple cost advantage has never been enough in the fiercely competitive world of global trade.

In addition to "roundtripping", another 25 per cent of FDI inflow in China goes into real estate. Thus if we consider the quantum that can be potentially put to productive use, India and China are probably not too far apart. Yet China's achievement is far ahead of India's. The implication is clear: what really matters is the efficient use of available resources (be it domestic or foreign in origin), rather than the actual magnitude as such.

(7) Worldwide the trend is for foreign capital to move more and more into services. Here India's prospects are looking up in the IT and business process services. According to GDF (2004), during 1996-2002 our country with its low-cost, English- speaking, computer-literate labour force attracted $1 billion in FDI, a large part of which was used to set up call centres.

Panagariya (2004) is of the opinion that the stagnation in industry is chiefly responsible both for the low private absorption of foreign exchange and the modest response of FDI in the post reform period in India. (Industry still accounts for only a quarter of India's compared to one half in China. The entire fall in agriculture's share has

been absorbed by services, mostly informal, in India.) The stagnation, in turn, is attributed to two factors:

(i) Inflexible labour laws, reservation of labour intensive products such as garments and toys for small scale units and inadequate infrastructure have dampened the incentive of large scale producers (both domestic and foreign) to invest

(ii) Mounting fiscal deficit has crowded out private investment. Slow growth of manufacturing has led to slow growth in export and import. Import has failed to absorb the inflow of foreign capital, so much so that the upward pressure on the rupee could not be contained in spite of huge FER accumulation by the RBI. "Therefore, the solution to both trade and FDI expansion lies in stimulating growth in industry. The necessary steps are now common knowledge: bring all tariffs down to 10 per cent or less, abolish the small scale industries reservation, institute an exit policy and bankruptcy laws and privatise all public sector undertakings."

FDI and Growth

Is there any strong positive connection between foreign capital inflow and growth? Evidence on this very important question is far from ambiguous, with China lending support and Brazil negating it. Since 1994, Brazil has attracted enormous FDI from the developed countries, but neither the growth rate nor export prospects have showed commensurate results. The study by Carkovic and Levine (2002) fails to find strong evidence of positive correlation between FDI inflow and output growth. The comments made earlier about the feasibility of economic development without dependence on foreign borrowing are relevant here too. Historically, all of the three countries- Japan, South Korea and Taiwan- very carefully regulated foreign investment inflow during their period of growth.

In their attempt to measure the link between growth and capital inflow into India Marwah and Klein (1998) start by discussing the two alternative frameworks for analysing the impact of inflows: (a) a macroeconomic growth model in which the effect of FDI is examined through its effects on the saving ratio and the capital output ratio and (b) a multifactor production function is estimated to capture the change induced by FDI in the relevant parameters. Adopting framework (b) they assume constant returns to scale and four main inputs-labour, domestic capital, foreign capital and imports. The econometric analysis is based on annual observations for the period 1951-89 or appropriate subperiods. Results suggest that for every one percentage growth point, 0.351 is generated by growth of domestic and foreign capital nested together, 0.569 by labour, and 0.08 by imports. The contribution of the two types of capital to the growth in productivity can be allocated in proportion to their respective weights in the total nest.

Examination of historical movements over the entire period of nearly forty years revealed that average labour productivity has risen at a snail's pace and in a stepwise fashion, but capital labour ratio has shown a strong upward trend and import intensity has moved almost parallel with average productivity, slightly more than doubling in 43 years.

I summarise by quoting Nagaraj : " While the entry of foreign firms has increased competition and improved the variety and quality of consumer goods, there are some disturbing signals. Foreign investment in infrastructure is a failure. Gradual loss of managerial control in many industrial firms, decline in competition in some industries, extinction of some leading Indian brand names and limited improvement in domestic production capability seem to be signs of concern."

However, as already noted, prospects are favourable in IT and business process related services. This is important because the share of services in global FDI is on the rise and this trend is unlikely to be reversed. India is well placed to take advantage of this. However, the potential impact on general welfare would have been greater if the growth had taken place, as in China, in traditional labour intensive manufacturing first. That would have been a more normal trajectory of development.

2.1.2 FPI in India

Over the last decade India has steadily grown in importance as destination of global investment in emerging equity markets. Foreign Institutional Investment (FII) as a fraction of market capitalisation increased from 7.06 per cent in 1999-00 to 13.5 per cent in 2000-01 and to 14.1 per cent in 2001-02. The inflow, however, is still very small in relation to GDP. In fact, the FII-GDP ratio is the lowest among the emerging market economies.

In 2000-01, portfolio investment accounted for over 37 per cent of total foreign investment in the country and 47 per cent of the current account deficit. The corresponding figures for the previous year were 59 per cent and 64 per cent respectively. There was an unprecedented surge in 2003-04, as revealed by Table .This huge inflow of equity funds drove the Sensex twice over the 6000 mark in 2004.

In India the equity channel of FII is much more important than debt. For the financial year 2001-02, the average monthly transactions (sale plus purchase) were Rs 6800 crores in the equity segment and Rs 730 crores in debt. Debt investment exceeded the cap of $ 1 billion in 2003-04. The limit has been raised to $ 1.75 billion

Sources: The registered FIIs come from as many as 28 countries. US based institutions account for 42 per cent, those from the UK 20 per cent and Western European countries approximately 17 per cent.

BOX 5 : FII Operations in India

- Currently there are about 500 registered FIIs in India which include asset management companies, pension funds, mutual funds, investment trusts as nominee companies, incorporated / institutional portfolio managers, university funds, endowment foundations, charitable trusts and charitable societies.
- RBI approval under FEMA enables an FII to buy / sell securities on stock exchanges open foreign currency or rupee accounts with a designated bank.FII investments are regulated under SEBI (FII) Regulations , 1995, and Regulation 5(2) of FEMA. FIIs can also invest in listed and unlisted securities outside stock exchanges, where the price has been approved by RBI. All non-stock exchange transactions need RBI's permission.
- FIIs are usually required to allocate their investment between equity and debt instruments in the ratio 70:30.However, it is possible for an FII to turn itself into a 100 per cent debt FII.
- No individual FII can acquire more than 10 per cent of the paid up capital of an Indian company. All FIIs taken together cannot acquire more than 24 per cent of the paid up capital of an Indian company. Subject to certain conditions the 24 per cent ceiling can be raised.

A survey by Economic Times in 2002 of 100 large private sector companies revealed that in 23 companies FIIs held more than 5 per cent of equity, in 15 companies they held more than 10 per cent, in 6 holding exceeded 20 per cent and in 2 (Infosys and Satyam Computer) it was above 24 per cent.(quoted in Gordon and Gupta, 2003.)

- FIIs were allowed to invest in Indian capital market securities from September 1992. First investments were made in January 1993. The gilts market was opened up in April 1998 and investment started in January 1999.
- There seems to be a seasonal pattern in FII flows to India. They tend to be higher during the first four months of the year. This may be caused by global factors such as liquidity coming into the market through year end bonuses and tax saving investments. Also, announcements of reforms in the run up to the end- February budget may have something to do with it.

We now summarise the findings of five important studies - Chakrabarti (2001), Coondoo and Mukherjee (2004), Mukherjee, Bose and Coondoo (2002) , Gordon and Gupta (2003) and Bose and Coondoo (2004).

There is strong positive correlation between inflows and contemporaneous stock returns in India. While this is consistent with the logic that higher return attracts foreign investment, it has been suggested that the causation may be in the other direction. Higher inflows into a shallow market are actually driving stock prices up by creating buying pressures. On the basis of daily data from January to December, 1999, Chakrabarti gets the result that FII flows are more an effect than a cause of market returns. This is supported by Mukherjee, Bose and Coondoo, who established unidirectional causality from stock return (BSE return calculated from BSE Sensex) to FII and found some evidence of a positive association between FII and the call money rate and index of industrial production (indicators of real economic activity).

The market return in India emerges as the prime mover of FII inflow. "Push"(or external) factors like US equity returns, changes in interest rates or stock market volatility do not appear to have had a significant influence in motivating inflows. This is a cause for concern, because a drop in return may result in sudden massive withdrawals with disturbing consequences for the economy.

Unlike in the pre-Asian crisis period, foreign investors are no longer using the Indian market to diversify their portfolio. The co-movement of returns has become much stronger in recent years and as a result the Indian equity market cannot be used as an instrument of portfolio diversification. The stronger integration with the global market exposes the country to the danger of contagion in case of an international crisis.

Chakrabarti finds no evidence of inflows being affected by India's credit ratings. The relative stability of the rupee in the foreign exchange market may have outweighed the influence of credit ratings. This is ,however, contradicted in Gordon and Gupta.

In the regression analysis of Gordon and Gupta the following variables were found to be significant: the lagged dependent variable (positive), lagged domestic stock market return (negative), lagged exchange depreciation (negative), lagged rating downgrades (negative), beginning of the year effect (positive), lagged or contemporaneous emerging market yield (positive), and LIBOR (negative).

The following were not found to be significant: liquidity in the domestic stock market, industrial growth in India , in emerging markets or in developed countries, and the dummy for the relaxation of rules governing FII investment in India.

Regarding the relative importance of domestic versus external (pull versus push) factors, the authors conclude that the two sets are about equally important. Individually, the lagged domestic return exerts the strongest influence, followed by emerging market returns, credit rating downgrades, seasonal effects and LIBOR.

It was also found that while the magnitude of flows is small compared to other emerging markets, flows to India are less volatile and more resilient. The coefficient of variation for flows was measured to be 1.58 for India, the corresponding figures for the Philippines, Thailand, Korea, Chile and Brazil being 1.79, 25.07, 1.82, 1.94 and 2.14, respectively.

The positive coefficient of emerging market returns suggests that when emerging markets as a group receives more flows, India is also likely to gain. This implies a risk of possible outflow if market yields across the emerging economies decline for some reason.

On the important issue of the impact of capital inflow on the *volatility* of stock returns international evidence is mixed, revealing wide divergence in the experience of different countries. In the Indian context Coondoo and Mukherjee used a descriptive non-parametric measure and considered three aspects of the volatility implicit in a given time series data: strength (S), duration (D) and persistence (P).The sample period is from January 1999 to May ,2002. The S measure is consistently largest for FIIS (sale by FIIs), followed by FIIN (net FII) and FIIP (purchase).In terms of D , FIIN tends to be in the volatile state for the largest proportion of days in the given period. In terms of P, for all the variables volatility is found to persist for a short spell only.

Significant interdependence of volatility for different pairs of variables is obtained only with respect to the S aspect. That is, the volatility of one variable affects that of the other only in terms of strength and not duration or persistence.

Using a multivariate GARCH regression model Bose and Coondoo (2004) attempted an assessment of the impact on FII flows of major policy interventions relating to such flows during the period January 1999 – January 2004. Their results suggest-

(i) liberalisation policies had the desired expansionary effect and have either raised the mean level of inflows and/or their sensitivity to BSE returns and/or the inertia of the flows.

(ii) restrictive measures aimed at greater control over the flows do not show any significant negative impact on net inflows and generally raise both the inertia and the sensitivity to domestic market returns.

FPI and Growth

FPI flows to the secondary equity market do not stimulate investment directly. They can contribute to growth only by enhancing the liquidity and efficiency of capital markets. But here also, as with FDI, presence of adequate financial market infrastructure and legal mechanisms relating to property rights and active stock market participation by domestic savers are crucial ingredients of success. In countries with shallow equity markets the prime focus should be on building up the confidence of domestic investors. A survey by SEBI and NCAER revealed that malpractices in share trading and lack of confidence in brokers/subbrokers and company management/auditors were the main cause behind the low enthusiasm of Indian savers for the stock market. No lasting gain to the economy will result if the domestic investor base continues to be weak.

SECTION TWO : MAJOR POLICY ISSUES FOR INDIA

In this section we take up a number of important policy issues confronting India for more intense scrutiny. We shall address three questions first and then evaluate some measures that are being taken or contemplated by the RBI to tackle the problem of burgeoning foreign reserves.

2.2.1 Three Questions

(a) *Is there Scope for Independent Monetary Policy in India?*

Large capital inflows has called for adjustments in domestic economic policies. The burden has fallen disproportionately on monetary policy owing to the low flexibility of fiscal maneuvres. The “capital account offset coefficient”- the response of FER to DC (domestic credit)- measures the degree to which capital inflows offset the effect of a change in DC. A coefficient of unity implies perfect capital mobility leaving no scope for independent monetary action. A coefficient of zero holds for completely closed capital accounts.

For India the offset coefficient was estimated to b (-0.3) over the period April 1993-March 1997 (Pattanaik,1997), suggesting that authorities have sufficient independence to pursue domestic goals.

(b) *Why has So Much Inflow been Added to Reserves ?*

Most of the inflows has been added to the FER of the RBI. The share of DC in reserve money has gone down dramatically from 91 per cent in 1991 to 3 per cent in March 2003. The major reasons behind high “banking” are –

(1) The larger the percentage of volatile items in total inflow the higher is the proportion held as reserves for prudence and stability. For India the share of FDI is still very low.

(2) The experience of East Asia has demonstrated that inflows intermediated through commercial banks may lead to credit expansion which, instead of stimulating investment, may trigger a consumption boom (with a strong import bias) or a speculative asset bubble(typically in equity or real estate). Capital may take flight en masse when the bubble bursts. To avert disasters of this type RBI

has deliberately tried to keep bank intermediation of inflows at a manageably low level.

Kohli(2003) examined the impact of inflows on India's banking sector and found that it has not been very strong. In Thailand and Indonesia bank assets as a percentage of GDP expanded over 1988-93 from 73 and 45 to 102 and 74 respectively. The same ratio for India has undergone a modest growth of 3 per cent during 1990-2000. Private domestic credit remained more or less constant, while investment in government securities (as proportion of GDP) almost doubled from 8.8 per cent to 15.6 per cent.

Three factors account for this relatively muted impact on Indian banks-

(j) The magnitude of inflow is still small compared to the East Asia- pacific region.

(ii)Liberalisation of capital account items directly concerning the banks(for example, foreign currency deposits) has been done very cautiously.

(iii) Much of the inflow has gone into the buffer stock of the RBI.

(3) Since absorption of foreign exchange through imports continues to be low, RBI has to go for extensive "banking" to prevent appreciation of the rupee. Appreciation will hurt the tradables in general and the exporters of IT services in particular. The degree of exchange rate for our exports has been estimated at 0.82 (RBI Report on Currency and Finance, 2002-03). This signals a high exchange sensitivity. Also, there is evidence that since 1999-2000 the rupee has appreciated significantly vis-à-vis our main competitors. Further appreciation is undesirable.

The Tenth Plan projects an export growth of 12.4 per cent. The road map for achieving this in the medium run is delineated in the Medium Term Export Strategy, which is aimed at raising the country's share in world trade to 1 per cent by 2006-07 from the existing 0.7 per cent. Appreciation will hamper this programme.

(c) *Why has Sterilisation Taken Place on Such a Large Scale?*

Sterilisation is done to check unplanned expansion of money supply which may not be consistent with the prevailing monetary stance. There are well known costs associated with sterilisation and adjustment is prevented as the domestic interest rate is kept from falling. Therefore sterilisation can at best be a means of buying time before effective policies can be put in place to enhance the economy's capacity to absorb foreign capital.

The extent of sterilisation is captured by the "sterilisation coefficient"- the response of change in DC to that in FER. Using monthly data from April 1994 to September 2003 it was estimated at (- 0.92). That is, an additional Rs 100 of FER induced an act of sterilisation that drained away DC worth Rs 92 from the system. In our judgement this is an unduly high value for an economy which may be suffering from a credit crunch. Capacity utilisation in manufacturing was higher in 1988-91 than in 1998-2001, but RBI's credit to GOI and the commercial sector (as percent of GDP) was 2.4 and 0.2 in the former and 0.37 and 0.1 in the latter.

In recent years the declining stock of GOI securities with the RBI has cast doubt on the Bank's ability to carry on the operation indefinitely on the present scale. An internal Working Group on Instruments of Sterilisation reviewed the various instruments currently in use and deliberated on the introduction of new instruments which may require amendment to the RBI Act. Market Stabilisation Bonds are already in operation . Faced with similar policy dilemma, the central banks of China, South Korea, Malaysia and Poland also have issued special central bank paper, subject to limits in terms of money supply or central banks' net worth.

Although inflation targeting has been formally given up in India , RBI continues to follow an almost textbook version of monetarism in its approach to inflation. This is not supported by evidence. History shows that the link between money and prices become tight only at relatively high rates of inflation. For India, econometric tests have failed to consistently support a causal relation between monetised fiscal deficit and inflation (Balakrishnan,1991). The study by Pattanaik, Kapur and Dhal (2003) also concludes that the effect of monetary shocks on inflation is almost negligible. Containing inflationary pressures fails to make a convincing case for costly sterilisation on such a massive scale.

It should also be remembered that the challenge of sterilisation in the Indian case is not acute per se, because large fiscal deficit enables banks to put most of their surplus funds emanating from capital inflow in GOI paper.

The real reason may be the Bank's fear, not unfounded, that given the banks' reluctance to lend to business excess liquidity may find its way into speculation in the markets for currency, real estate or equity. After the reduction in the bank rate in March 1998 bank lending to non-prime borrowers did not pick up. Instead, in a situation of depreciating rupee banks used their liquidity to arbitrage between the spot and forward foreign exchange markets.(Mukhopadhyay, 2000).

2.2.2 Evaluation of Policies in respect of FER

Several alternatives have been suggested and are being followed by the RBI to deal with the growing stock of reserves. We make an evaluation.

(A *)Market driven Exchange Rate*

It has been argued that the current policy of exchange protectionism should be discontinued and the RER should be allowed to find its level in the market. Enhanced trade deficit will contribute to better growth. This ,however, as our analysis shows ,will have a contractionary effect in a situation of demand deficiency unless inflows are FDI with strong crowding in effects. Even if the demand constraint does not apply at the economy wide level, appreciation will hurt the exchange sensitive sectors. The exchange pass through for our exports has been estimated to be 0.82.(RBI Report on Currency and finance, 2002-03). The counterargument is that price elasticity of our exports is not very high, and export success is much more dependent on non-price factors.

To stimulate absorption and thereby slow down the rate of reserve accumulation, some economists have recommended an acceleration of import liberalisation. A number of studies done at ICRIER (Banga,2003 ; Virmani et al ,2004) have concluded that the reduction of tariffs has had a favourable impact on intra-industry trade, net exports and efficiency enhancing FDI inflow. Our view is that the reduction of peak tariffs should certainly continue but the composition of imports should be closely watched, because liberalisation resulting in a consumption splurge will render CAD unsustainable.

(B) *Prepayment of Foreign Debt*

Part of the country's reserves are being used to pay off international debt. Since the return on reserves is considerably less than the interest cost of most categories of foreign debt, such a policy adds to national income. Also, reduction in outstanding debt will lower the amount of reserves RBI needs to hold for ensuring a given degree of BoP viability.

However, debt prepayment is just another way of building up foreign reserves. The first best policy ,needless to say, is to utilise reserves to add to the stock of real domestic assets of the economy.

There is also the catch that improvement in debt position may act as a stimulant for additional flow of portfolio capital.

(C*) Capital account Liberalisation*

The RBI has started relaxing capital controls, especially for residents. In particular, it is now much easier for professionals to hold foreign exchange earnings abroad or to send remittances abroad and for banks to invest in overseas financial instruments. These measures have been interpreted by the market as signal for full capital convertibility of the rupee in none-too-distant future.

However, a consensus has emerged that a fully open capital account is viable only when it is supported by a robust financial system that can cope with the complexities of capital flows and a stable framework of macro policies including an exchange rate consistent with long term fundamentals. Without adequate supervision ability to borrow

abroad may encourage reckless speculative lending by domestic banks. If capital decides to leave banks will become insolvent.

As already pointed out, external borrowing by an economic agent has an element of externality since it raises the cost to the entire economy. Marginal social cost being greater than private cost, restriction on borrowing is called for.

On the outflow side, when domestic agents are free to invest anywhere in the world, the risk of currency crisis increases significantly. No amount of reserve may be enough to support the currency, should troubles develop.

Three crucial preconditions were laid down by the Tarapore Committee for attaining full capital convertibility—fiscal consolidation (deficit equal to 3.5 per cent of GDP in 1999-2000), a mandated inflation target (3-5 per cent per annum on average) and strengthening of the financial system. Of these, realised inflation is close to the target, fiscal consolidation is way off the mark and financial reform is still in progress and far from being complete. So irrespective of the current stock of FER, controls on capital flows should not be hastily dismantled.

A complicating factor is that move towards full convertibility may cause larger inflows by boosting the confidence of investors in the Indian economy.

(D) *Use of Foreign Exchange for Infrastructure Investment.*

Recently the Planning Commission has floated the idea that our large and rising foreign exchange reserves should be utilised for infrastructure investment. Since inadequate infrastructure is widely recognised as a major constraint on India's growth , putting the so called "idle reserves" earning very low returns into this activity with high social returns seems a particularly promising idea.

On closer look, unfortunately, the brilliance fades quite a bit. In three separate papers in a recent issue of EPW (25 December, 2004) three economists, Virmani, Patnaik and Chandrasekhar, have critically discussed the proposal. The main points may be summarised as follows.

First, the RBI clearly does not think that reserves are excessive. It is holding the amount and investing it the way it does precisely because it thinks that to preserve stability in the BoP it may be necessary to release a large part of these reserves any moment at short notice. And given the composition of our inflow- low proportion of stable, long term flows- who can say that its action is not justified. So chances are slim that RBI and the Planning Commission will ever see eye to eye on the proposed scheme.

Second, even if "excess reserves" are indeed to be utilised in this manner, there must be an investor, public or private, who is willing to purchase these dollars from the RBI to finance new imports. But that investor is nowhere in sight. It is not lack of foreign exchange that has kept infrastructure investment low in our country over the last decade. The binding constraints lie elsewhere. Private agents, domestic or foreign, are unsure about cost recovery under the existing regulatory framework and GOI does not have the right incentives or the capability.

To give a particularly glaring example of government failure : even with adequate stocks of foodgrains at its disposal over a considerable period of time, the government has consistently failed to launch successful programmes of labour intensive investment in rural infrastructure. Even before the advent of the Fiscal Responsibility and Budget Management Act (FRBM) its record in the field of creation of social capital through monetised deficit was far from satisfactory. Why expect better performance in the new context ? Since tax revenue is not rising fast enough and further borrowing from the RBI is precluded by the FRBM and public debt has already assumed alarming proportions, there is not much option left for raising the rupee resources to purchase dollars from the RBI (to finance additional imports for new investment projects.)

Successful provision and management of public goods presuppose a degree of quality of government organisations that is largely absent in India today. The national highway programme has been reasonably successful chiefly because the newly created National Highway Authority of India was given powers that enabled it to steer clear of the CPWD. So ,according to Virmani (2004) among others, what is really needed is a pro-

competition infrastructure policy backed up by a professional independent regulatory framework. This absent, neither domestic resources nor foreign can be effectively utilised in government projects.

2.2.3 Suggestions for Improving Monetary and Reserve Management

After this brief evaluation of current policies we propose some measures to address the issue of burgeoning reserves and related problems.

(1) Reducing the Need for Sterilisation by Improving Credit Delivery

Sterilisation should be reduced and the supply of money (credit) should be allowed to rise. As already mentioned, reducing DC of RBI in the face of credit crunch faced by firms strikes one as perverse. A sterilisation coefficient as high as 0.92 can hardly be justified. RBI Report on Currency and Finance(2003) states, " In the absence of sterilisation there could be excessive volatility in the financial markets, interest and exchange rates, leading to erosion of competitiveness of the economy." This fails to be convincing . As matters stand, instead of showing any volatility, inflows are steadily on the rise. If sterilisation is reduced liquidity will improve and this may stimulate demand and ease the pressure on the rupee by lowering the interest rate.

Most likely the Bank is apprehensive that given the banks' reluctance to lend to business excess liquidity will find its way into destabilising speculation in real estate or the currency market. The fear may very well be justified. In that case effective measures have to be found to tackle the problem at its source by improving the credit delivery mechanism (especially to small and medium business). Searching for new instruments of sterilisation will certainly do little good under the circumstances. Sterilisation (or liquidity management) is a "temporary solution" that has become a permanent feature of our monetary management.

We do not think there is enough economic justification for clinging to the simple monetarist model of inflation in India. The real reason may lie in the ultra inflation-sensitivity of Indian politics. What is seldom appreciated is that ensuring smooth flow of working capital credit may be a much more effective instrument of fighting inflation than controlling the growth of some aggregative measure of the monetary stock. (The Bank thinks that since it is well understood by the public, announcing a monetary target gives an unambiguous signal to the market. Also, the commitment is intended to enhance the credibility of the RBI. Our contention is that the signal value and the commitment effect are probably being outweighed by the costs.)

(2) *Changing the Composition of Inflows in Favour of FDI*

Vast amounts of dollar reserves have to be maintained for purposes of "prudence and stability" because it is FII ,and not FDI, that makes up the bulk of the flow into our country at present. Serious effort must be made to boost the share of FDI. It is well known but still worth repeating that capital flows with a higher FDI content can ensure sustainability even if the CAD-GDP ratio is relatively high. Singapore had an average ratio of 12 per cent over 1970-82 with direct investment comprising nearly half of the inflow.

The Planning Commission constituted a Steering Committee on FDI in 2001 to suggest ways of raising the volume. It recommended domestic policy reforms in the power sector, urban infrastructure and further decontrol and delicensing to promote private investment, both domestic and foreign.

> Panagariya (2004) is right in singling out the stagnation in industry as the key factor behind the lukewarm response of FDI to reform in India. Slow growth in manufacturing has led to slow growth in exports and imports. Import has failed to absorb foreign exchange so miserably that strong upward pressure on the rupee persists in spite of huge accumulation of FER by the RBI.
>
> Worldwide the trend is for foreign capital to move more and more into services, and here India's share is rising fast, particularly in IT and ITES. During 1996-2002 FDI moved in on a substantial scale mostly to set up call centres. This is a good sign no

doubt, but the impact on general welfare would have been higher if the investment had taken place in traditional manufacturing that is labour intensive and has greater linkages with the rest of the economy. GOI's Small Industries Reservation Policy is partly responsible for the low participation of foreign investment in traditional manufacturing.

If the share of FDI cannot be boosted immediately, controls should be imposed to restrict the free flow of short term funds. (Patnaik, 2004). Many believe that the cut in capital gains tax by the new government in July, 2004, has played a major role in pulling more funds in recent months. Chile type taxation seems to be out of favour, due to implementation problems. RBI Bulletin (June, 2004) states, " In the case of portfolio investment, once such flows are permitted there are few quantitative or price instruments that are available to impede them without seriously impeding market sentiments." This shows a degree of pessimism with which it is difficult to agree.

(3) *Developing the Currency and Capital markets*

The Indian foreign exchange market is still quite shallow, characterised by uneven flows and a few big players of which the RBI is a prominent one. Total turnover has been rising over time with the average daily value (merchant plus interbank) jumping to $8 billion in 2003-04 from $1.9 billion in 1990-91. The interbank to merchant turnover ratio has declined from 8.5 to 3.4. As the market develops participants are better able to manage their own micro risks and RBI can shift to managing macro risk. Herd behaviour is much more likely in thin and underdeveloped markets.

The Bank continues to take measures for developing the currency and capital markets. In addition to relaxation of regulation over banks, corporates and nonresidents in matters of hedging and cross currency options, several steps have been taken to develop the forward market. Need for scrutiny and regulation is underscored by the fact that in recent years corporates have started keeping large portions of their foreign currency borrowings unhedged. This is occurring despite the fact that over the years considerable flexibility has been given to banks, corporates and nonresidents to hedge their foreign currency exposure in the market.

<u>Foreign Exchange Market Efficiency and Integration</u>

Market efficiency in this context is usually judged through an examination of the Interest Parity Conditions. An RBI study using monthly data over April,1993 – September, 2003, found that the 3-month forward premium is positively related to the interest differential on 3-month Treasury Bills in India and the USA. Rolling estimates suggest that the coefficient of interest differential has been more stable in the recent 3-4 years ,indicative of growing integration with external markets. (Report on Currency and Finance, 2002-03). However, fitted residuals themselves represent substantial arbitrage opportunities.

Efficiency is expected to improve as a result of the measures initiated to enhance the breadth and depth of the foreign exchange market.

(4)*Infrastructure Development*

The RBI Report (2002-03) states ," The main impediment constraining India's growth in future is the continuing fall in public investment in infrastructure which has been caused by deteriorating fiscal environment at both central and state government levels. Apart from ensuring higher buoyancy in tax revenues, the key solutions to India's fiscal predicament are bold programmes for imposing user charges , and implementation of a programme for disinvestments and privatisation."

There is strong complementarity between public and private investment in India. Both peaked in 1994-95 and have steadily declined together since then. It is

noteworthy that our recent success in ITES exports is chiefly attributable (apart from the supply of skilled labour) to the fact that in this field required capital investment is relatively low and a reasonably efficient telecom network can serve as the supporting infrastructure.
The Planning Commission has recently made a suggestion for utilising the stockpile of FER for infrastructure projects. We have already discussed this proposal in some detail in Section 2.2.2.

2.2.4 Summary and Policy Conclusions

According to RBI , " The basic objective has been to maintain orderly conditions in the financial markets and to ensure that capital flows promote efficiency without having an adverse impact on economic stability." Unfortunately, only the first half of the objective has been achieved, but not the second. Foreign capital has not so far had noticeably positive impact on efficiency or growth. And maintaining orderly conditions may prove more and more difficult if the current trend persists.

The current scenario displays some positive as well as negative features. The authorities have been successful in managing external debt and preventing speculative bubbles in the currency market or elsewhere, but the deeper malaise is breaking out in the form of ever rising dollar reserves. Ironically, the very success is creating forces that are adding to the problem by attracting foreign capital of the "wrong" type. (One shudders to think what might happen if ,ceteris paribus, fiscal discipline also begins to improve!)

Our major policy recommendations may succinctly be presented as –

- Reduce sterilisation and concentrate on improving the credit pass through of monetary policy. The credit starvation of small and medium enterprises must be eliminated. Adequate absorption of foreign capital cannot be ensured by growth in service exports alone.
- Shed the reluctance to check the torrent of FII, explore effective methods of restricting this flow rather than novel methods of sterilisation. Due to the thinness of the market (and its susceptibility to manipulation) large portfolio flows may cause equity bubbles. Reduction in non-FDI flows will reduce the need for large unproductive reserves.
- Exchange rate protectionism should be gradually eliminated and the currency should be allowed to appreciate in response to capital inflow. Protecting the exchange sensitive sectors should not be the overriding concern of policy.
- Trade liberalisation should continue to stimulate absorption of foreign exchange. But the process should be carefully managed and monitored, otherwise surge in consumption imports will render CAD unsustainable.
- There should be no let up in financial reforms that will strengthen the currency and capital markets. This will promote the participation of domestic investors.
- Invest in infrastructure in general (and not only in telecom) to boost domestic investment and attract FDI in manufacturing.
- Approach to capital convertibility should continue to be cautious until the crucial preconditions are fulfilled.
- Following Feldstein's advice, a part of the reserves may be invested in higher yield (higher risk) securities.

We are aware that the constraint of political expediency will rule out a lot of options like bringing down the fiscal deficit or improving the climate for FDI in a wide range of industrial activities, rather than in an enclave and so on.

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