

Capital Flows to India

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In most of the period since the mid-1990s, external sector developments in India have been marked by strong capital flows. Capital flows to India, which were earlier mainly confined to small official concessional finance, gained momentum from the 1990s after the initiation of economic reforms. Apart from increase in size, capital flows to India have undergone a compositional shift from predominantly official and private debt flows to non-debt creating flows in the post reform period. Private debt flows have begun to increase again in the more recent period. Though capital flows are generally seen to be beneficial to an economy, a large surge in flows over a short span of time in excess of the domestic absorptive capacity can, however, be a source of stress to the economy giving rise to upward pressures on the exchange rate, overheating of the economy, and possible asset price bubbles. In India, capital flows in the past few years have recorded a sharp increase and have been well above the current account deficit, which has largely remained modest. This has posed new challenges for monetary and exchange rate management. This paper elaborates on various aspects of the capital flows to India and their policy implications. The sections have been arranged as follows: Section I provides a historical backdrop to the evolution of capital flows to India. Section II highlights various aspects of capital flows to India, analysing their trend, magnitude, and composition. Section III deals with issues on management of

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capital flows into India and their implications for the conduct of monetary and exchange rate policies. Section IV highlights some of the major issues and challenges for the central bank and Section V concludes with the future outlook.

I. Historical Backdrop

For the first four decades after independence in 1947, the economic policies of the Indian government were characterised by planning, control and regulation. Until the 1980s, India's development strategy was focused on self-reliance and import substitution. There were periodic attempts at market-oriented reform, usually following balance of payments pressures, which induced policy responses that combined exchange rate depreciation and an easing of restrictions on foreign capital inflows. However, the latter were relatively narrow in scope and had little impact on actual inflows, which remained small. The situation changed dramatically with the onset of reform programs introduced in the early 1990s in the aftermath of the balance of payments crisis of 1991.

Broadly speaking, India's approach towards external capital flows could be divided into three main phases. In the first phase, starting at the time of independence and spanning upto the early 1980s, India's reliance on external flows was mainly restricted to multilateral and bilateral concessional finance. Subsequently, however, in the context of a widening current account deficit during the 1980s, India supplemented this

traditional external source of financing with recourse to external commercial loans including short term borrowings and deposits from non-resident Indians (NRIs). As a result, the proportion of short term debt in India's total external debt increased significantly by the late 1980s. The third phase was marked by the balance of payments crisis of 1991 and the initiation of reform process. The broad approach to reform in the external sector was based on the recommendations made in the Report of the High Level Committee on Balance of Payments (Chairman: C. Rangarajan), 1991. The objectives of reform in the external sector were conditioned by the need to correct the deficiencies that led to payment imbalances in the 1991. Recognising that an inappropriate exchange rate regime, unsustainable current account deficit and a rise in short term debt in relation to the official reserves were amongst the key contributing factors to the crisis, a series of reform measures were put in place. The measures included a swift transition to a market determined exchange rate regime, dismantling of trade restrictions, moving towards current account convertibility and gradual opening up of the capital account. While liberalising the private capital inflows, the Committee recommended, *inter alia*, a compositional shift in capital flows away from debt to non-debt creating flows; strict regulation of external commercial borrowings, especially short term debt; discouraging volatile element of flows from non-resident Indians; and gradual liberalisation of outflows.

Among the components, since the 1990s, the broad approach towards permitting foreign direct investment has been through a dual route, *i.e.*, automatic and discretionary, with the ambit of automatic route progressively enlarged to almost all the sectors, coupled with higher sectoral caps stipulated for such investments. Portfolio investments are restricted to institutional investors. The approach to external commercial borrowings has been one of prudence, with self imposed ceilings on approvals and a careful monitoring of the cost of raising funds as well as their end use. In respect of NRI deposits, some modulation of inflows is exercised through specification of interest rate ceilings and maturity requirements. In respect of capital outflows, the approach has been to facilitate direct overseas investment through joint ventures and wholly owned subsidiaries and provision of financial support to exports, especially project exports from India. Ceilings on such outflows have been substantially liberalised over time. The limits on remittances by domestic individuals have also been eased. With progressive opening up of its capital account since the early 1990s, the state of capital account in India today can be considered as the most liberalised it has ever been in its history since the late 1950s.

In India, capital account liberalisation is considered as a process and it is managed by keeping in view the elasticities of supply and other responses in the economy, and vulnerabilities or

potential for shocks. The issue of capital account liberalisation is handled with extreme caution given the potential for sudden capital reversal. The Report of the Committee on Capital Account Convertibility, 1997 (Chairman: S.S. Tarapore) provided the initial framework for liberalisation of capital account transactions in India. The Committee recommended a phased implementation of capital account convertibility in India to be completed by the year 1999-2000. Taking lessons from the international experience, the Committee suggested a number of pre-conditions, attainment of which was considered necessary for the success of the capital account liberalisation programme in India. Fiscal consolidation, lower inflation and a stronger financial system were seen as crucial signposts for India. It is interesting to note that the Committee did not recommend unlimited opening up of the capital account, but preferred a phased liberalisation of controls on outflows and inflows over a three-year period. Even at the end of the three-year period, capital account was not to be fully open and some flows, especially debt flows, would continue to be managed.

The issue of capital account liberalisation was re-examined by the Committee on Fuller Capital Account Convertibility (Chairman Shri S.S. Tarapore) (2006), which made several recommendations on the development of financial markets in addition to addressing issues related to interaction of monetary policy and exchange rate management, regulation/supervision of banks and the

timing and sequencing of capital account liberalisation measures (details in Section III.3). The Committee has recommended that at the end of the five-year period ending 2010-11, there should be a comprehensive review to chalk out the future course of action.

II. Trend, Magnitude and Composition of Capital Flows to India

II.1 Trend

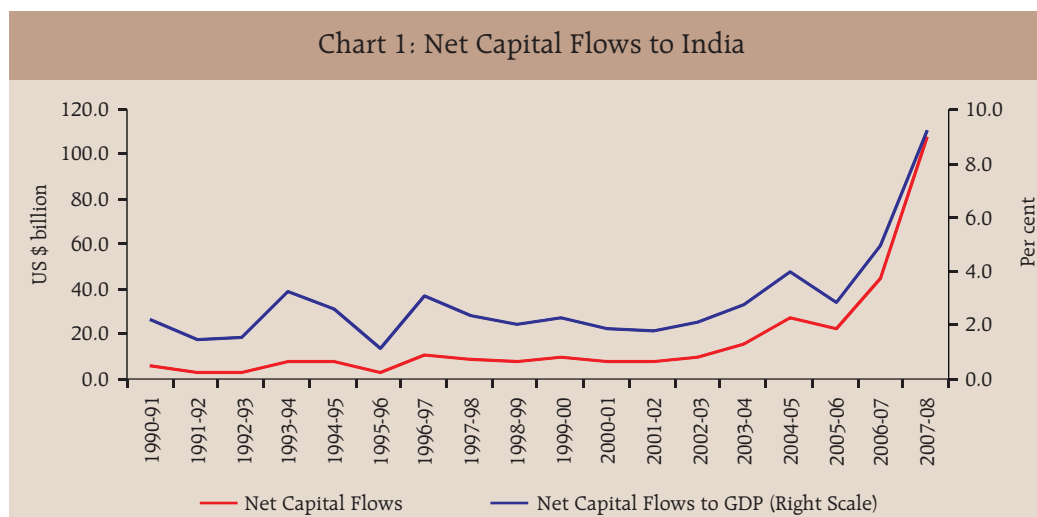
Since the introduction of the reform process in the early 1990s, India has witnessed a significant increase in cross-border capital flows, a trend that represents a clear break from the previous two decades. The size of net capital flows to India increased from US \$ 7.1 billion in 1990-91 to US \$ 45.8 billion in 2006-07, and further to US \$ 108.0 billion during 2007-08 (Chart 1). India has one of the highest net capital flows among the emerging market economies (EMEs) of Asia.

II.2 Magnitude

Net capital flows to India, which increased from 2.2 per cent of GDP in 1990-91 to around 9 per cent in 2007-08, however, do not reflect the true magnitude of capital flows to India. Gross capital inflows to India, as a percent of GDP, have undergone a more than five-fold increase from 7.2 per cent in 1990-91 to 36.6 per cent in 2007-08. Much of this increase has been offset by corresponding capital outflows, largely on account of foreign institutional investors' (FIIs) portfolio investment transactions, Indian investment abroad and repayment of external borrowings. Capital outflows increased from 5.0 per cent of GDP in 1990-91 to 27.4 per cent of GDP in 2007-08. The gross volume of capital inflows amounted to US \$ 428.7 billion in 2007-08 as against an outflow of US \$ 320.7 billion.

Strong capital flows to India in the recent period reflect the sustained momentum in domestic economic activity, better corporate performance, positive

Chart 1: Net Capital Flows to India



investment climate, long term view of India as an investment destination and favourable liquidity and interest rates in the global market. Apart from this, the prevailing higher domestic interest rate along with a higher and stable growth rate have created a lower risk perception, which has attracted higher capital inflows.

The large excess of capital flows over and above that required to finance the current account deficit (which is currently around 1.5 per cent of GDP) resulted in reserve accretion of US \$ 110.5 billion during the financial year 2007-08. India's total foreign exchange reserves were US\$ 308.4 billion as on July 4, 2008.

II.3 Composition

As regards the composition of capital flows, the thrust of the policy reform in India in the aftermath of the balance of payment crisis was to encourage non-debt creating flows and discourage short term debt flows. Accordingly, the composition of capital inflows to India clearly reflects a shift towards non-debt creating flows. The substantial contribution of external aid towards the capital account in the 1950s, 1960s, 1970s and 1980s has dwindled steadily since the 1990s (excluding IMF loans in 1991 and 1992) as the official flows started getting replaced by private equity flows and external commercial borrowing (Table 1). Although non-debt flows, particularly private foreign investments have gained in importance, there is also a significant rise in the debt creating flows in last two years mainly on account of rise in external commercial borrowings by Indian corporates (Table 2).

Non-debt flows

Equity flows under foreign direct investment (FDI) and foreign portfolio investments constitute the major forms of non-debt creating capital flows to India. There has been a marked increase in the magnitude of FDI inflows to India since the early 1990s, reflecting the liberal policy regime and growing investors' confidence. India's share in global FDI flows increased from 2.3 per cent in 2005 to 4.5 per cent in 2006. Inflows under FDI were particularly high during the last two years, though a large part of it was offset by significant outflows on account of overseas investment by Indian corporates.

In a major break from the past, the spurt in FDI flows to India in the recent period has been accompanied by a jump in outward equity investment as Indian firms establish production, marketing and distribution networks overseas to achieve global scale along with access to new technology and natural resources. Investment in joint ventures (JV) and wholly owned subsidiaries (WOS) abroad has emerged as an important vehicle for facilitating global expansion by Indian companies. Overseas direct equity investment from India jumped to US \$ 11.3 billion in 2006-07 from US \$ 3.8 billion in 2005-06. Overseas direct equity investment amounted to US \$ 12.5 billion during 2007-08. Overseas investment, though started off initially with the acquisition of foreign companies in the IT and related services sector, has now spread to other areas such as non-financial services.

Table 1: External Financing in India

(US \$ million)						
	1990-91	2000-01	2003-04	2005-06 PR	2006-07 P	2007-08 P
Current Account Balance	-9,680	-2,666	14,083	-9,902	-9,766	-17,407
As a percentage of GDP	-3.1	-0.6	2.3	-1.2	-1.1	-1.5
Net Capital Flows	7,056	8,840	16,736	25,470	45,779	108,031
<i>of which</i>						
1. Foreign Direct Investment						
Inflows	107	4,101	4,464	9,178	22,959	34,924
Outflows	10	829	2,076	6,144	14,480	19,379
<i>Net</i>	97	3,272	2,388	3,034	8,479	15,545
2. Foreign Portfolio Investment						
Inflows	6	13,619	28,218	68,120	109,622	235,630
Outflows	0	11,029	16,862	55,626	102,560	206,369
<i>Net</i>	6	2,590	11,356	12,494	7,062	29,261
3. External Assistance						
Inflows	3,397	2,941	3,350	3,607	3,747	4,241
Outflows	1,193	2,531	6,208	1,841	1,960	2,127
<i>net</i>	2,204	410	-2,858	1,766	1,787	2,114
4. External Commercial Borrowings						
Inflows	4,282	9,621	5,228	14,343	20,973	29,851
Outflows	2,028	5,318	8,153	11,835	4,818	7,686
<i>net</i>	2,254	4,303	-2,925	2,508	16,155	22,165
5. NRI Deposits						
Inflows	7,348	8,988	14,281	17,835	19,914	29,321
Outflows	5,811	6,672	10,639	15,046	15,593	29,142
<i>net</i>	1,537	2,316	3,642	2,789	4,321	179

PR: Partially Revised. P: Preliminary.

Note : 1. Figures for foreign direct investment and foreign portfolio investment include gross inflows and gross outflows on account of foreign investments in India as also Indian investment abroad. Similarly, figures for external assistance and external commercial borrowings include gross inflows and gross outflows on account of foreign borrowings as well as overseas lending by Indian entities.

2. Large outflows under external commercial borrowings during the year 2005-06 reflect one-off effect of the principal repayment of US \$ 5.2 billion on account of redemption of India Millennium Deposit bonds .

Source : Reserve Bank of India.

A marked feature of FDI flows to India is that unlike the dominance of manufacturing in the East Asian economies, the FDI to India has concentrated in the services sector. This reflects the service led growth of the economy and comparative advantage in international trade in services. It may be mentioned that information technology has enabled greater tradability of a number of business and professional services. With greater potential for growth in such services, FDI has also

emerged as a vehicle to delivery of services to the international markets. Moreover, within services sector, financing, insurance, real estate and business services have witnessed a large increase in their share in FDI flows to India between 2002-03 and 2007-08. Computer services also remains a key sector for FDI as the mode of captive BPO/ subsidiaries have been principal instruments for facilitating offshore delivery of computer services and IT enabled services.

Table 2: Composition of Capital Inflows to India

	1990-91	2000-01	2003-04	2005-06	2006-07 P	2007-08P
Net Capital Flows (US \$ million)	7,056	8,840	16,736	25,470	45,779	108,031
of which (in per cent)						
1. Non-Debt Creating Flows	1.5	66.3	82.1	73.6	34.5	41.5
a) Foreign Direct Investment	1.4	37.0	14.3	20.2	18.8	14.4
b) Foreign Portfolio Investment	0.1	29.3	67.9	53.4	15.7	27.1
2. Debt Creating Flows	71.1	30.3	7.7	29.6	51.2	49.6
a) External Assistance	31.2	4.6	-17.1	7.2	3.9	1.9
b) External Commercial Borrowings*	31.9	48.7	-17.5	11.6	35.8	20.5
c) Short-term Credits	15.2	6.2	8.5	7.3	7.3	16.4
d) Banking Capital	9.7	-22.2	36.0	5.9	4.6	10.9
of which						
NRI Deposits	21.8	26.2	21.8	11.9	8.7	0.2
e) Rupee Debt Service	-16.9	-7.0	-2.2	-2.4	-0.4	-0.1
3. Other Capital #	27.4	3.3	10.2	-3.2	14.2	8.9
Total (1+2+3)	100.0	100.0	100.0	100.0	100.0	100.0

P: Provisional.

* : Refers to medium and long-term borrowings.

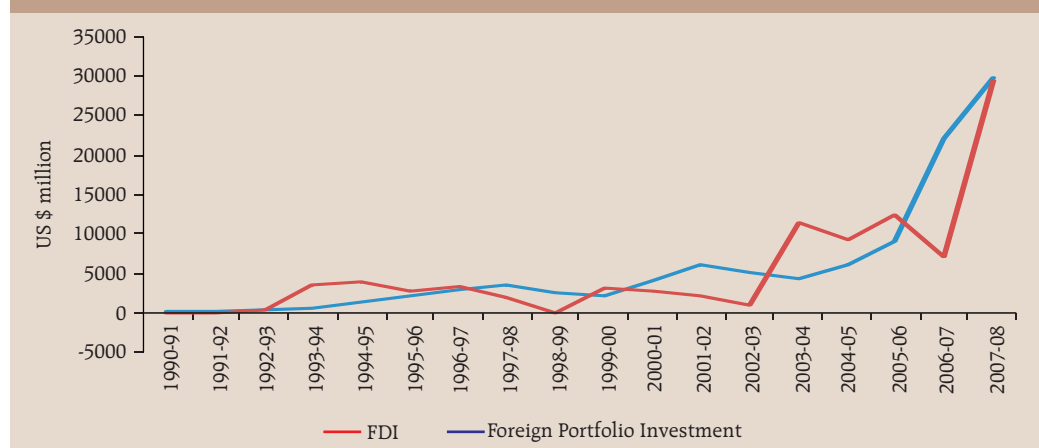
: Includes leads and lags in exports (difference between the custom and the banking channel data), Indian Investment abroad and India's subscription to International Institution and quota.

Source: Annual Report, Reserve Bank of India, 2006-07.

Like FDI, India's share in net portfolio flows to emerging market and developing countries has expanded. India has witnessed a dominance of portfolio flows over FDI flows during various periods of time, which is in contrast to developing and emerging market

economies in most parts of the world, where FDI constituted the main source of equity flows (Chart 2). However, unlike FDI flows, which exhibited a more or less steady upward trend over the years, portfolio flows are more volatile, moving in tandem with domestic and

Chart 2 : Foreign Investment Inflows to India



international market sentiments. Accordingly, a sharp rise in portfolio investment into India in the recent period reflects both global and domestic factors. The search for yield in view of very low real long term rates in advanced economies has been an important factor driving portfolio flows to emerging market economies as a group and India also has attracted such flows. Domestic factors, such as strong macroeconomic fundamentals, resilient financial sector, deep and liquid capital market, improved financial performance of the corporate sector and attractive valuations also attracted large portfolio flows. Consistent with the principle of hierarchy of capital flows, India has been making efforts towards encouraging more inflows through FDI and enhancing the quality of portfolio flows by strict adherence to 'know your investor' principle (Reddy 2005).

Debt-creating Flows

External assistance, external commercial borrowings (ECBs), trade credits and non-repatriable component of NRI deposits constitute the major portion of the external debt in India.

External assistance, which consists of external aid flows from bilateral and multilateral sources, constituted the major source of external financing for India in the 1950s and 1960s. The importance of external assistance in India's capital flows has declined steadily during the last three decades as it gave way to private capital flows. The share of external assistance in India's total capital flows has declined

from 31.2 per cent in 1990-91 to 1.9 per cent in 2007-08. India, on the other hand has started extending assistance to other countries, mainly in the form of grants and loans. India provided aid mainly in the form of technical co-operation and training, with the grant component dominating external aid with a share of over 90 per cent. The major beneficiaries of the assistance during 2006-07 were Bhutan, Nepal and Sri Lanka.

The recourse to external commercial borrowings by Indian corporates, though initiated in the early the 1970s, remained modest due to the dominance of concessional, non-market based finance in the form of external assistance from bilateral sources and multilateral agencies. Towards the end of the 1970s, the concessional aid flows dwindled. Thus, with the rising external financing requirements beginning with the 1980s and the recognition that reliance on external assistance was not favourable, commercial borrowings from international capital markets were preferred. Commercial borrowings after experiencing some slowdown in the aftermath of the balance of payments crisis, rose significantly in the latter half of the 1990s, responding to the strong domestic investment demand, favourable global liquidity conditions, upgrade of sovereign credit rating, lower risk premia on emerging market bonds, and an upward phase of capital flow cycle to the EMEs. During this period, ECBs constituted about 30 per cent of the net capital flows to India. Towards the late 1990s and the early 2000s, the demand for

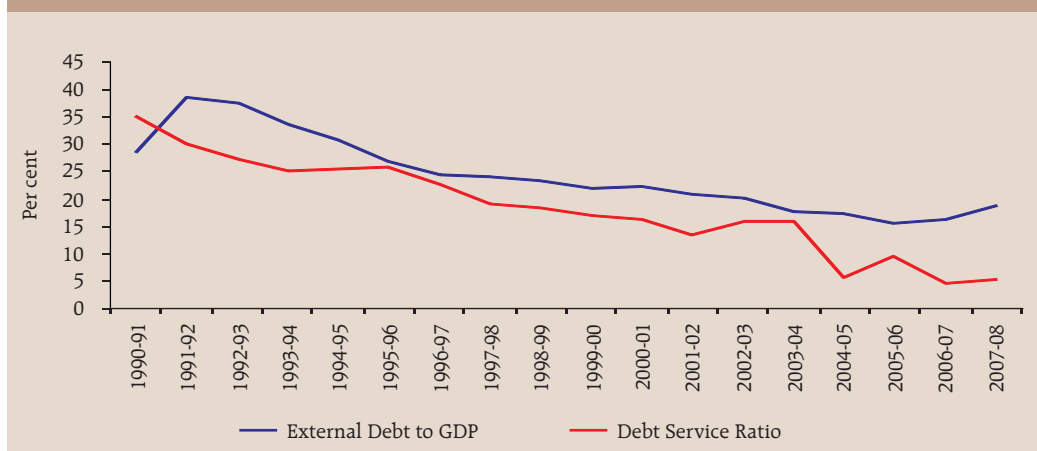
ECB remained subdued due to a host of factors such as global economic slowdown, reversal of a rising phase of capital flows to developing countries and lower domestic investment demand. The period beginning 2003-04 marked the resumption of debt flows to developing countries, which was a combined outcome of the higher interest rate differential emanating from ample global liquidity and the robust growth expectations and low risk perception towards the emerging markets. Net inflows under ECB increased from US \$ 2.5 billion in 2005-06 to US \$ 16.2 billion in 2006-07 and further to US \$ 22.2 billion during 2007-08. ECB contributed to about 20.5 per cent of the net capital flows to India in 2007-08. Higher ECB drawals during the past few years reflect sustained domestic investment demand, import demand, hardening of domestic interest rate as also greater risk appetite of global investors for emerging market bonds. The policy on ECB is kept under constant review and changes are made as needed.

In the 1970s, the two oil shocks shifted substantial resources towards oil exporting countries, which provided investment and employment opportunities in the oil-rich countries. The Reserve Bank devised specific deposit schemes to tap the savings of non-resident Indians employed in these countries. Non-Resident Indians/Overseas Corporate Bodies were allowed to open and maintain bank accounts in India under special deposit schemes-both rupee and foreign currency denominated. NRI deposits have been a generally stable source of support to India's balance of payments through the

1990s, although the external payment difficulties of the 1990-91 demonstrated the vulnerability that can be associated with these deposits in times of difficulty and drastic changes in perceptions. Since the 1990s, the Reserve Bank has aligned the interest rates on these deposits with international rates, fine-tuned the reserve requirements, end-use specifications and other concomitant factors influencing these deposits in order to modulate these flows consistent with overall macroeconomic management.

As a whole, India's external debt stock stood at US \$ 221.2 billion at the end of March 2008. Consolidation of India's external debt position is reflected in terms of steady improvement in India's debt sustainability and liquidity indicators. While the ratio of India's external debt to GDP has declined over the years from 38.7 per cent in 1991-92 to 18.8 per cent in 2007-08, the debt service ratio declined from 30.2 per cent to 5.4 per cent during the same period (Chart 3). At the end of March 2008, India's foreign exchange reserves at US \$ 309.7 billion provided a cover of 140 per cent to total external debt, though there has been an increase in the short term debt in recent years. As regards the composition of external debt, there has been a distinct decline in the share of Government debt in total external debt as it has gone down from 43.4 per cent to 26.3 per cent of total external debt between end-March 2001 and end-December 2007, giving way to non-government private external borrowings (Chart 4).

Chart 3: External Debt Indicators



India's net international liabilities increased from US \$ 47.2 billion at the end of March 2004 to US \$ 73.9 billion at the end of December 2007, as the increase in international liabilities (US \$ 222.5 billion) exceeded the increase in international assets (US \$ 195.7 billion) during the period (Chart 5). While the increase in the liabilities was mainly due to large capital flows under portfolio investment, FDI and external commercial loans, the increase in

international assets was mainly on account of an increase in reserve assets, followed by direct investment abroad. A major part of the liabilities, such as direct and portfolio investment reflects cumulative inflows, which are provided at historical prices. The value of the liabilities would be much higher if marked to market at current prices. The share of non-debt liabilities to total external financial liabilities has witnessed an increasing

Chart 4: Government and Private External Debt Outstanding

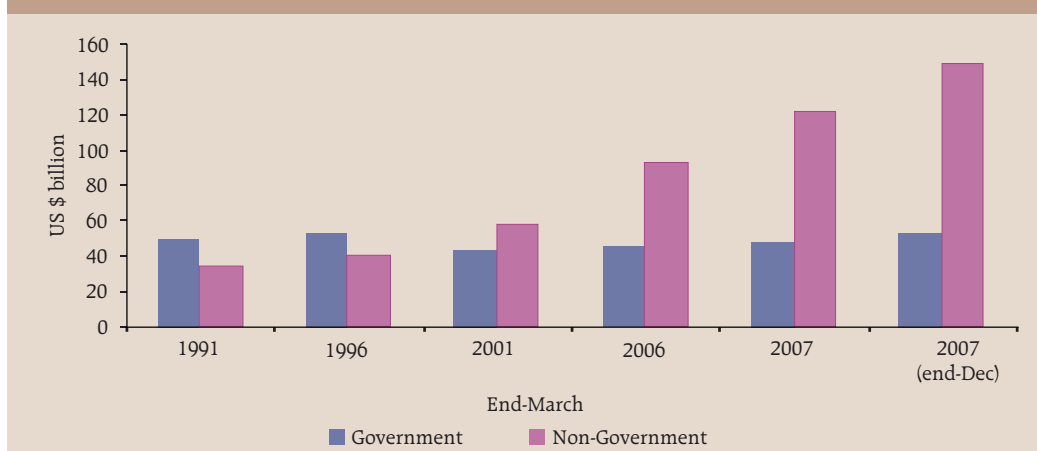
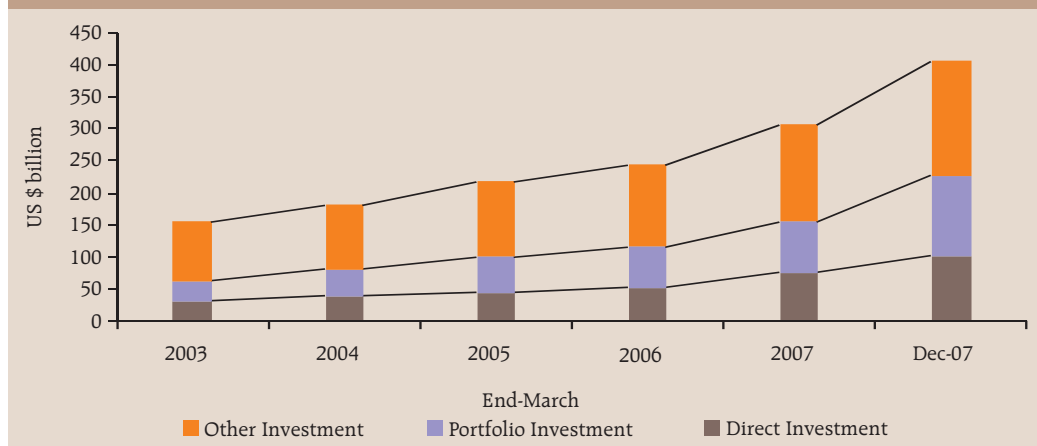


Chart 5: India's External Liabilities



trend since end-June 2006. It has increased from 42.3 per cent at end June 2006 to 50.8 per cent at end-December 2007 due to large capital inflows under direct and portfolio equity investments. On the other hand debt liabilities, which include portfolio investment in debt securities and other investment (trade credits, loans, currency and deposits and other liabilities) declined from 57.7 per cent to 49.2 per cent during the same period.

III. Management of Capital Flows in India

The recent episode of capital flows, which has occurred in the backdrop of current account surplus in most of the emerging Asian economies, highlights the importance of absorption of capital flows. A large surge in capital flows over a short span of time in excess of domestic absorptive capacity of the economy can lead to upward pressure on the exchange rate, possible overheating of the economy and asset price bubbles. They can also pose the risk of an abrupt reversal, which may

have potential negative real economic effects. The absorption of capital flows is limited by the extant magnitude of the current account deficit, which has traditionally been low in India, and seldom above 2 per cent of GDP. Given this situation, large capital inflows in excess of a sustained current account deficit are a stress on the real economy through pressures on exchange rate appreciation and sterilization. This not only affects exporters, but also affects the profitability of the domestic producers through pressures on domestic prices, unless productivity goes up commensurately. Real appreciation of the exchange rate leading to widening of the trade deficit could also lead to a slowdown in economic and industrial growth. Thus, the combination of low domestic absorption and high capital inflows have posed new challenges for monetary and exchange rate management in India.

In the medium term, a continued focus on financial market development

would mitigate the challenge of capital flows. However, it is important to recognise that maturation of financial markets takes time. Hence, capital flows have to be managed through other tools in the short term, while continuing to work on development of financial markets (Reddy 2008a). In response to net capital flows remaining well in excess of the current account financing need, a multi-pronged approach has been followed in India to deal with such flows. The policy responses have included, inter alia, phased liberalisation of the policy framework in relation to current as well as capital account outflows; foreign exchange market intervention and subsequent sterilisation; lowering interest rate ceilings on NRI deposits; management of external debt through pre-payment and moderation in the access of corporates and intermediaries to additional external debt; and greater flexibility in exchange rate movements.

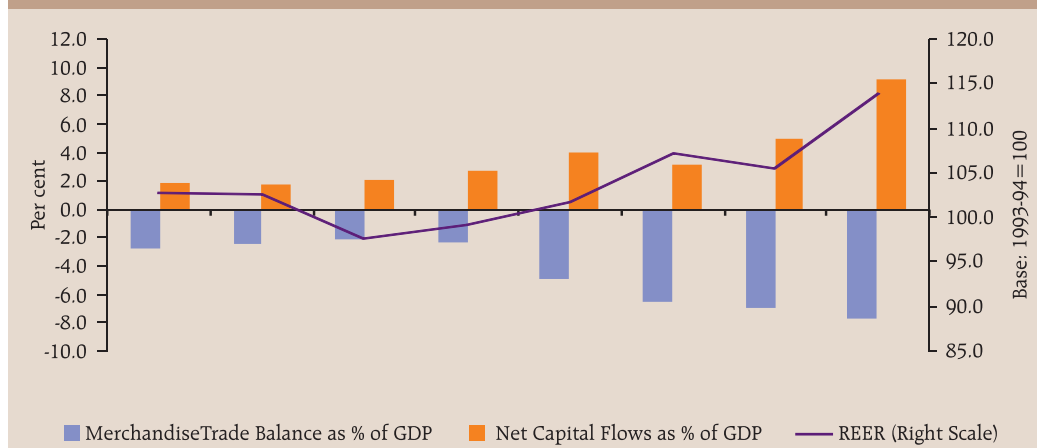
III.1 Capital Flows and Exchange Rate Management

In India, with gradual removal of restrictions on international capital flows and greater integration of financial markets with global financial markets, the task of understanding the precise nature of casual relationship among capital flows, exchange rate, interest rate and reactions of monetary policy has certainly become more complex. The response lag of the exchange rate and domestic liquidity to monetary policy actions in the form of direct intervention in the exchange market as well as changes in the short-term policy

rates has important implications for the stability of foreign exchange markets and external price competitiveness. The importance of capital flows in determining exchange rate movements has increased considerably, rendering some of the earlier guideposts of monetary policy formulation possibly anachronistic (Mohan 2007 a). On a day-to-day basis, it is capital flows which influence the exchange rate and interest rate arithmetic of the financial markets. Instead of the real factors underlying trade competitiveness, it is expectations and reactions to news which drive capital flows and exchange rates, often out of alignment with fundamentals. Capital flows have been observed to cause overshooting of exchange rates as market participants act in concert while pricing information. In the Indian case, notwithstanding the persistence of a large trade deficit, capital flows have led to appreciation of the exchange rate, indicating the dominance of capital inflows in determining the exchange rate movements (Chart 6).

The experience with capital flows has important lessons for the choice of the exchange rate regime. The advocacy for corner solutions – a fixed peg without monetary policy independence or a freely floating exchange rate retaining discretionary conduct of monetary policy – is distinctly on the decline. The weight of experience seems to be tilting in favour of intermediate regimes with country-specific features, without targets for the level of the exchange rate and exchange market interventions to fight extreme market turbulence. In general, emerging

Chart 6: Merchandise Trade, Capital Flows and Exchange Rate Movements



market economies have accumulated massive foreign exchange reserves as a circuit breaker for situations where unidirectional expectations become self-fulfilling (Mohan 2006).

In India, since a market-determined exchange rate system was set in place in March, 1993, the exchange rate is largely determined by demand and supply conditions in the market. The exchange rate policy in recent years has been guided by the broad principles of careful monitoring and management of exchange rates with flexibility, without a fixed target or a preannounced target or a band, while allowing the underlying demand and supply conditions to determine the exchange rate movements over a period in an orderly way. Subject to this predominant objective, the exchange rate policy is guided by the need to reduce excess volatility, prevent the emergence of destabilising speculative activities, maintain adequate level of reserves, and develop an orderly foreign exchange

market. The Indian foreign exchange market, like other developing countries markets, is not yet very deep and broad, and can sometimes be characterised by uneven flow of demand and supply over different periods. In this situation, the Reserve Bank of India has been prepared to make sales and purchases of foreign currency in order to even out lumpy demand and supply in the relatively thin forex market and to smoothen jerky movements. However, such intervention is not governed by a predetermined target or band around the exchange rate.

Over the years, transactions in the Indian foreign exchange market have experienced tremendous growth. The increase in foreign exchange market turnover in India, between April 2004 and April 2007 was the highest amongst the 54 countries covered in the Triennial Central Bank Survey of Foreign Exchange and Derivatives Market Activity conducted by the Bank for International Settlements in 2007. According to the survey, the daily

average turnover in India jumped almost 5-fold from US \$ 7 billion in April 2004 to US \$ 34 billion in April 2007, whereas global turnover over the same period increased by only 66 per cent from US \$ 2.4 trillion to US \$ 4.0 trillion. Reflecting these trends, the share of India in global foreign exchange market turnover trebled from 0.3 per cent in April 2004 to 0.9 per cent in April 2007. The average daily turnover in Indian foreign exchange market has almost doubled from US \$ 25.8 billion in 2006-07 to US \$ 48.0 billion in 2007-08 (Table 3). Component-wise, the share of the spot market in total foreign exchange market turnover has declined marginally in the recent years due to a pick-up in turnover in derivative segment. The merchant segment of the spot market is generally dominated by the Government of India, select public sector units, such as Indian Oil Corporation (IOC), and the FIIs. As the foreign exchange demand on account of public sector units and FIIs tends to be lumpy and uneven, resultant demand-supply mismatches entail occasional pressures on the foreign exchange market, warranting market interventions by the Reserve Bank to even out lumpy demand and supply. However,

as noted earlier, such intervention is not governed by a predetermined target or band around the exchange rate.

The public sector oil companies are among the important participants in the financial markets in India. Therefore, the liquidity and other related issues currently faced by these entities arising from the unprecedented escalation in international crude prices have systemic implications for the smooth functioning of financial markets and for overall financial stability in India. Accordingly, in order to minimise the potential adverse consequences for financial markets, the Reserve Bank of India has since end-May 2008 put in place Special Market Operations (SMO), under which, it (i) conducts open market operations (outright or repo at the discretion of the Reserve Bank) in the secondary market through designated banks in oil bonds held by public sector oil marketing companies in their own accounts, currently subject to an overall ceiling of Rs.15 billion on any single day; and (ii) provides equivalent foreign exchange through designated banks at market exchange rates to the oil companies. The SMOs constitute only a fraction of the total turnover in the money and foreign exchange markets in India but are intended to have the impact of reducing volatility. Further, the SMOs are likely to improve the access of public sector oil companies to domestic liquidity and alleviate the lumpy demand in the foreign exchange market in the current extraordinary situation.

Table 3: Average Daily Volume of Transactions in the Indian Forex Market

(US \$ billion)			
Year	Spot	Derivatives*	Total
1997-98	2.6	2.4	5.0
2000-01	2.8	3.0	5.8
2003-04	4.3	4.4	8.7
2004-05	5.8	5.8	11.6
2005-06	8.9	8.7	17.6
2006-07	13.4	12.4	25.8
2007-08	23.8	24.2	48.0

Despite interventions by the Reserve Bank of India in the face of large capital flows, exchange rate movement in India in the recent period is marked by significant bi-directional movement, implying greater flexibility (Table 4). The IMF has observed in its Article IV Consultation Paper: "since the start of 2007, the BRICs (Brazil, Russia, India and China) have experienced significant REER appreciation. Most of the real appreciation in 2007 for India and Brazil came from nominal appreciation, whereas China and Russia had inflation-led appreciation". Moreover, the volatility of the exchange rate of India has become almost similar to the volatilities of exchange rates observed from the countries with managed float exchange rate regime over the years.

III.2 Capital Flows and Monetary Management

Capital flows and Liquidity Management

In the recent period, in India, one of the most serious challenges to the

conduct of monetary policy emerges from capital flows in view of significantly higher volatility of such flows as well as the fact that capital flows in gross terms are much higher than those in net terms. Swings in capital flows can have significant impact on exchange rates, domestic monetary and liquidity conditions and overall macroeconomic and financial stability (Mohan 2007a). This has warranted appropriate monetary operations to obviate wide fluctuations in market rates and ensure reasonable stability consistent with the monetary policy stance. In fact, the Indian experience illustrates the tight link between external sector management and domestic monetary management (Mohan 2006).

In India, with a view to neutralising the impact of excess forex flows on account of large capital account surplus, the central bank has intervened in the foreign exchange market in regular intervals. But unsterilised forex market intervention can result in inflation, loss of competitiveness and attenuation of monetary control. The loss of monetary control could be steep if such flows are large. Therefore, it is essential that the monetary authorities take measures to offset the impact of such foreign exchange market intervention, partly or wholly, so as to retain the intent of monetary policy through such intervention. Most techniques to offset the impact of forex inflows can be classified as either market based or non-market based approaches. The market based approach involves financial transactions between the central

Table 4: Movements of Indian Rupee

Year	Range (Rs per US \$)	Average (Rs per US \$)	Standard Deviation
1993-94	31.21-31.49	31.37	0.05
1994-95	31.37-31.97	31.40	0.12
1995-96	31.37-37.95	33.45	0.56
1996-97	34.14-35.96	35.50	0.21
1997-98	35.70-40.36	37.16	0.37
1998-99	39.48-43.42	42.07	0.24
1999-00	42.44-43.64	43.33	0.10
2000-01	43.61-46.89	45.68	0.15
2001-02	46.56-48.85	47.69	0.13
2002-03	47.51-49.06	48.40	0.07
2003-04	43.45-47.46	45.92	0.19
2004-05	43.36-46.46	44.95	0.31
2005-06	43.30-46.33	44.28	0.22
2006-07	43.14-46.97	45.28	0.27
2007-08	39.26-43.15	40.24	0.38

bank and the market, which leads to withdrawal or injection of liquidity, as the case may be. The non-market based approach involves the use of quantitative barriers, rules or restrictions in market activity, which attempt to keep the potential injection of liquidity outside the domestic financial system. The market based approach aimed at neutralising part or whole of the monetary impact of foreign inflows is termed as sterilisation.

In India, the liquidity impact of large capital inflows was traditionally managed mainly through the repo and reverse repo auctions under the day-to-day Liquidity Adjustment Facility (LAF). The LAF operations were supplemented by outright open market operations (OMO), *i.e.*, outright sales of the government securities, to absorb liquidity on an enduring basis. In addition to LAF and OMO, excess liquidity from the financial system was also absorbed through the building up of surplus balances of the Government with the Reserve Bank, particularly by raising the notified amount of 91-day Treasury Bill auctions, and forex swaps.

The market-based operations led to a progressive reduction in the quantum of securities with the Reserve Bank. This apart, as per those operations, the usage of the entire stock of securities for outright open market sales was constrained by the allocation of a part of the securities for day-to-day LAF operations as well as for investments of surplus balances of the Central Government, besides investments by the State Governments in respect of

earmarked funds (CSF/GRF) while some of the government securities were also in non-marketable lots. In the face of large capital flows coupled with declining stock of government securities, the Reserve Bank of India introduced a new instrument of sterilisation, *viz.*, the Market Stabilisation Scheme (MSS) to sustain market operations (Box I). Since its introduction in April 2004, the MSS has served as a very useful instrument for medium term monetary and liquidity management.

In India, in addition to various market-based instruments of sterilisation, such as, LAF, OMO, MSS, balances of Government of India with the Reserve Bank, Forex swaps and private placements for pre-payment of external loans, the RBI has also taken recourse to increasing the cash reserve ratio for banks for withdrawing excess liquidity from the system. In recognition of the cumulative and lagged effects of monetary policy, preemptive monetary tightening measures have also been put in effect since September 2004 and continued during 2006-07, 2007-08 and 2008-09 in part, to manage monetary effects of excess capital flows. Since September 2004, the repo rate and the reverse repo rate have been increased by 250 and 150 basis points, respectively, while the cash reserve ratio (CRR) has been raised by 400 basis points. In the context of large capital inflows and implications for liquidity and monetary management, the interest rate ceilings on various non-resident deposit schemes have been reduced by 75-100 basis points

Box I: Introduction of MSS

In view of the finite stock of government securities available with the Reserve Bank for sterilisation, particularly, as the option of issuing central bank securities is not permissible under the RBI Act, the Working Group on Instruments of Sterilisation (2004) recommended that the Central Government could issue a special variety of bills/bonds for sterilisation purposes. Unlike in the case of central bank securities where the cost of sterilisation is borne indirectly by the fisc, the cost of issuance of such instruments by the Government would be directly and transparently borne by the fisc. The Committee recommended that to operationalise such a new instrument of sterilisation and ensure fiscal transparency, the Central Government may consider setting up a Market Stabilisation Fund (MSF) to be created in the Public Account. This Fund could issue new instruments called Market Stabilisation Bills/Bonds (MSBs) for mopping up enduring surplus liquidity from the system over and above the amount that could be absorbed under the day to day repo operations of LAF.

Based on above recommendation, a new instrument named as the Market Stabilisation Scheme (MSS) has been made operational from April 2004. Under this scheme, which is meant exclusively

for sterilization purposes, the Reserve Bank has been empowered to issue Government Treasury Bills and medium duration dated securities for the purpose of liquidity absorption. The scheme works by impounding the proceeds of auctions of Treasury bill and Government securities in a separate identifiable MSS cash account maintained and operated by the RBI. The amounts credited into the MSS cash Account are appropriated only for the purpose of redemption and / or buy back of the Treasury Bills and / or dated securities issued under the MSS. MSS securities are indistinguishable from normal Treasury Bills and Government dated securities in the hands of the lender. The payments for interest and discount on MSS securities are not made from the MSS Account, but shown in the Union budget and other related documents transparently as distinct components under separate subheads. The introduction of MSS has succeeded broadly in restoring LAF to its intended function of daily liquidity management.

Since its introduction in April 2004, the MSS has served as a very useful instrument for medium term monetary and liquidity management. It has been unwound at times of low capital flows and built up when excess capital flows could lead to excess domestic liquidity (Mohan 2006).

MSS Balances

(Rs. billion)

	2004-05	2005-06	2006-07	2007-08
Interest Payments	20.6	34.2	26.1	83.5
Outstanding Amount	642.1	290.6	629.7	1,683.9

Note : MSS Outstanding balance as on July 11, 2008 was Rs. 1,714.8 billion.

Source : Union Finance Accounts, Union Budget Documents and Reserve Bank of India.

since January 2007 to discourage greater inflows in these accounts.

Cost of Sterilisation

In the choice of instruments for sterilisation, it is important to recognise the benefits from and the costs of sterilisation in general and the relative costs/benefits in the usage of a particular instrument. The various instruments have differential impact on the balance sheets of the central bank, government and the

financial sector. For example, in the case of OMO sales, the differential between the yield on government securities and return on foreign exchange assets is the cost to the Reserve Bank. Sales of government securities under OMO also involve a transfer of market risks to the financial intermediaries, mostly banks. The repo operations under LAF have a direct cost to the Reserve Bank. In the context of an increase in CRR, the cost is borne by the

banking sector if CRR balances are not remunerated. However, if the CRR balances are remunerated, the cost could be shared between the banking sector and the Reserve Bank. The extent of capital flows to be sterilised and the choice of instruments, thus, also depend upon the impact on the balance sheets of these entities.

The cost of sterilisation in India is shared by the Central Government (the cost of MSS), Reserve Bank (sterilisation under LAF) and the banking system (in case of increase in the reserve requirements). Since surpluses of the Reserve Bank are transferred to the Central Government, on a combined balance sheet basis, the relative burdens of cost between the Government and Reserve Bank are not of great relevance. However, the direct cost borne by the Government is transparently shown in its budget accounts. Owing to the difference between international and Indian interest rates, there is a positive cost of sterilisation but the cost has to be traded-off with the benefits associated with market stability, export competitiveness and possible crisis avoidance in the external sector. Sterilised interventions and interest rate policy are generally consistent with overall monetary policy stance that is primarily framed on the basis of the domestic macro-economic outlook.

III.3 Capital Account Liberalisation

It is interesting to note that a number of empirical studies do not find evidence that greater openness and higher

capital flows lead to higher growth (eg. Prasad, Rajan and Subramanian, 2007). These authors find that there is a positive correlation between current account balances and growth among nonindustrial countries, implying that a reduced reliance on foreign capital is associated with higher growth. Alternative specifications do not find any evidence of an increase in foreign capital inflows directly boosting growth. The results could be attributed to the fact that even successful developing countries have limited absorptive capacity for foreign resources, either because their financial markets are underdeveloped, or because their economies are prone to overvaluation caused by rapid capital inflows. Thus, a cautious approach to capital account liberalisation would be useful for macroeconomic and financial stability (Mohan 2008).

Henry (2007) argues that the empirical methodology of most of the existing studies is flawed since these studies attempt to look for permanent effects of capital account liberalisation on growth, whereas the theory posits only a temporary impact on the growth rate. Once such a distinction is recognised, empirical evidence suggests that opening the capital account within a given country consistently generates economically large and statistically significant effects, not only on economic growth, but also on the cost of capital and investment. The beneficial impact is, however, dependent upon the approach to the opening of the capital account, in particular, on the policies in regard to liberalisation of debt

and equity flows. Recent research demonstrates that liberalisation of debt flows—particularly short-term, dollar-denominated debt flows—may cause problems. On the other hand, the evidence indicates that countries derive substantial benefits from opening their equity markets to foreign investors.

India has cautiously opened up its capital account since the early 1990s as the policy makers realised that to meet the huge investment needs of the country domestic savings needs to be supplemented with foreign savings. However, in liberalising its capital account, India has adopted a discriminatory approach towards various forms of capital flows. The Ministry of Finance, in its review of the trends in receipts and expenditures at the end of the second quarter of the financial year 2007-08 mentioned that direct foreign investment is the most preferred form of foreign capital flow. Investments in Indian firms through the stock market and by venture capital firms in unlisted companies are also potentially beneficial. External commercial borrowings and other short term flows are areas where one can introduce an element of control to moderate sudden surges. Accordingly, the thrust of policy reform in India was in favour of a compositional shift in capital flows away from debt to non-debt creating flows, *viz.*, FDI and foreign portfolio investment; strict regulation of external commercial borrowings, especially short term debt; discouraging volatile element of flows from non-resident Indians; and

gradual liberalisation of outflows. The present status of the various policy measures taken in India to manage the capital account is given at Annex 1A and 1B.

India has followed a gradualist approach to liberalisation of its capital account. The status of capital account convertibility in India for various non-residents is as follows: for foreign corporate and foreign institutions, there is a reasonable amount of convertibility; for non-resident Indians (NRIs) there is approximately an equal amount of convertibility, but one accompanied by some procedural and regulatory impediments. For non-resident individuals other than NRIs there is near-zero convertibility. Movement towards fuller capital account convertibility (FCAC) implies that all non-residents (corporate and individuals) should be treated equally. As mentioned earlier, recognising the merits in moving towards fuller capital account convertibility, the Reserve Bank of India in consultation with the Government of India, appointed the Committee on Fuller Capital Account Convertibility in March 2006. The Committee has set out the conditions that would be concomitant to move towards fuller capital account convertibility. The Committee has made several recommendations on the development of financial markets in addition to addressing issues related to interaction of monetary policy and exchange rate management, regulation/supervision of banks and the timing and sequencing of capital account

liberalisation measures. Measures towards fuller capital account convertibility as recommended by the Committee are provided at Annex 2.

Accordingly, the Reserve Bank of India has implemented a number of measures, *e.g.*, enhancement of limit of the remittance, liberalisation of Exchange Earners' Foreign Currency Accounts, liberalisation of procedures for project and service exports, enhancement of banks' overseas borrowings, increase in access of ECBs, establishment of corporate offices abroad, enhancement of FIIs' investment in Government Securities, enhancement of ceiling on Mutual Funds overseas investment, and liberalisation of forward contract regulations, *etc.*, based on the recommendations made by the Committee.

In view of the large capital flows during the last few years, recently, the Government of India and the Reserve Bank have taken some additional capital account measures aimed at limiting the

implications of forex flows for the conduct of domestic monetary policy. In February 2003, the Government pre-paid a part of its high cost external debt amounting to US \$ 3.03 billion to the Asian Development Bank and the World Bank by privately placing marketable securities with the Reserve Bank. This apart, relaxations were effected in regard to outflows, both under the current and capital accounts (Box II). At the same time measures were taken to manage debt inflows, especially ECB and NRI deposits.

In addition, changes in policies are made from time to time to modulate the debt-creating capital flows depending on the financing needs of the corporate sector and vulnerability of the domestic economy to external shocks. Recently, to facilitate easy access of Indian corporates to foreign funds, the Reserve Bank of India has increased the limit on ECBs for Rupee expenditure for permissible end-uses under the Approval Route to US \$ 100 million for borrowers in infrastructure

Box II: Recent Measures Towards Liberalisation of Capital Outflows from India

- Investment in overseas Joint Ventures (JV) / Wholly Owned Subsidiaries (WOS) by Indian companies have been permitted up to 400 per cent of the net worth of the Indian company under the Automatic Route.
- Indian companies have been allowed to invest in energy and natural resources sectors such as oil, gas, coal and mineral ores in excess of the current limits with the prior approval of the Reserve Bank of India.
- Listed Indian companies have been allowed for portfolio investment abroad up to 50 per cent of the net worth from the earlier limit of 35 per cent of the net worth.
- The earlier limit for prepayment of External Commercial borrowings (ECBs) without the Reserve Bank approval have been increased from USD 400 million to USD 500 million, subject to compliance with the minimum average maturity period as applicable to the loan.
- The aggregate ceiling for overseas investments by mutual funds registered with SEBI has been increased from USD 5 billion to USD 7 billion.
- The earlier limit under Liberalised Remittance Scheme (LRS) has been enhanced from USD 100,000 to USD 200,000 per financial year.

sector and to US \$ 50 million for other borrowers from earlier limit of US \$ 20 million per financial year, with effect from May 29, 2008. The all-in-cost interest rate ceiling for ECBs and trade credits for imports into India have been raised upwards. Effective from June 2, 2008, entities in the services sector, *viz.* hotels, hospitals and software companies, are allowed to avail ECB up to US \$ 100 million, per financial year, for the purpose of import of capital goods under the Approval Route. The limits for investment of the FIIs in the Indian debt market have been revised upwards from US \$ 4.7 billion (US \$ 3.2 billion in G-secs and US \$ 1.5 billion in corporate bonds) to US \$ 8.0 billion (US \$ 5.0 billion in G-secs and US \$ 3.0 billion in corporate bonds).

IV. Issues and Challenges

The management of capital flows is a complex process encompassing a spectrum of policy choices, which *inter alia* include: the appropriate level of reserves, monetary policy objectives related to liquidity management and maintenance of healthy financial market conditions with financial stability. The intensified pressures due to large and volatile capital flows in the recent period in an atmosphere of global uncertainties make the task significantly complex and critical (Reddy 2008b). India's Finance Minister while referring to "Managing Capital Flows" in the Mid-Year Review of 2007-08, dated December 7, 2007 stated that: *"While there are international experiences in this regard with some successful and painful adjustment*

process, the specific Indian context requires innovative policy responses. Going forward, this would be a major challenge".

In view of the above, some of the major issues as well as emerging challenges in respect of management of capital flows to India include the following:

- In the face of large and volatile capital flows, the problem for monetary management is two-fold. First, it had to distinguish implicitly between durable flows and transient flows. If capital flows are deemed to be durable and indefinite, questions arise regarding foreign exchange management. If the flows are deemed to be semi-durable, essentially reflecting the business cycle, the task of monetary and liquidity management is to smoothen out their impact on the domestic economy, finding means to absorb liquidity in times of surplus and to inject it in times of deficit. Second, in the short term, daily, weekly or monthly volatility in flows needs to be smoothened to minimise the effect on domestic overnight interest rates. In practice, *ex-ante*, it is difficult to distinguish what is durable, what is semi-durable and what is transient. Hence policy and practice effectively operates in an environment of uncertainty and a variety of instruments have to be used to manage liquidity in this fluid scenario.

- The challenges for monetary policy with an open capital account get exacerbated if domestic inflation firms up. In the event of demand pressures building up, increases in interest rates might be advocated to sustain growth in a non-inflationary manner but such action increases the possibility of further capital inflows if a significant part of these flows is interest sensitive and explicit policies to moderate flows are not undertaken. These flows could potentially reduce the efficacy of monetary policy tightening by enhancing liquidity. Such dilemmas complicate the conduct of monetary policy in India if inflation exceeds the indicative projections. During 2006-07, 2007-08 and 2008-09 so far, as domestic interest rates in India hardened on the back of withdrawal of monetary accommodation, external foreign currency borrowings by domestic corporates witnessed a significant jump in India, leading to even higher flows. In case, there are no restrictions on overseas borrowings by banks and financial institutions, such entities could also annul the efforts of domestic monetary tightening.
- As far as the exchange rate is concerned, the large inflow of remittances and major and sustained growth in software exports coupled with capital inflows have the potential for possible overvaluation of the currency and

the resultant erosion of long-term competitiveness of other traditional and goods sectors – a problem popularly known as the Dutch disease. Given the fact that more people are in the goods sector, the human aspects of the exchange rate management should not be lost sight of. The Dutch Disease syndrome has so far been managed by way of reserves build-up and sterilisation, the former preventing excessive nominal appreciation and the latter preventing higher inflation. However, the issue remains how long and to what extent such an exchange rate management strategy would work given the fact that we are faced with large and continuing capital flows apart from strengthening current receipts on account of remittances and software exports. This issue has assumed increased importance over the last year with increased capital flows arising from the higher sustained growth performance of the economy and significant enhancement of international confidence in the Indian economy (Mohan 2007 a).

- A related issue is whether there should be sterilised intervention and if so, the timing and quantum of such interventions. There is usually a cost attached to sterilisation operations. At the same time, it is also necessary to assess the indirect cost of not sterilising if

there are signs of a 'Dutch disease' caused by flows in the capital account. Most often, it is not a question of whether to sterilise or not, but how much to sterilise. That is an important issue of judgment that needs to be made in conjunction with domestic monetary and liquidity conditions.

- Even when capital flows are sterilised through open market operations the costs could be large when sterilisation operations raise domestic interest rates and result in the trap of even greater capital flows. The fiscal impact of sterilisation also requires to be factored in, specially when a large stock of securities is required to be issued for the purpose.
 - Another issue relates to the choice and an appropriate mix of instruments for sterilisation. Each instrument, namely, MSS, LAF and CRR has different features and interactions. Utilisation of each of these will also depend on what is the permanency of the components of the flows and how they should be sterilised in the aggregate. Further, each instrument can be used in different ways. The LAF is able to take care of very short period flows. The MSS handles the longer term flows slightly better than the LAF, and the CRR is more appropriate for addressing fairly longer term flows. However, effectiveness of the MSS will
- depend more on the initiatives of the market participants than on the decisions of the Reserve Bank. Operationally, the issue is often not 'which' instrument but 'how much' of each instrument needs to be utilised, with due regard to the capital flows, market conditions, and monetary as well as credit developments.
- While interventions are carried out with the objective of containing volatility in the forex market, intervention over a long period, especially when the exchange rate is moving in one direction, could make interventions less effective. However, a critical question is what would be the impact on expectations about future movements in forex markets if no intervention takes place. The challenges of intervention and management of expectations will be particularly daunting when financial contagion occurs, since such events are characterised by suddenness, high speed and large magnitudes of unexpected flows, in either direction. The quintessence for a relevant monetary policy is the speed of adjustment of the policy measures to rapidly changing situations.
 - A further challenge for policy in the context of fuller capital account openness will be to preserve the financial stability of the system as greater deregulation is done on

capital outflows and on debt inflows. This will require market development, enhancement of regulatory capacity in these areas, as well as human resource development in both financial intermediaries and non-financial entities.

- Another aspect of greater capital market openness concerns the presence of foreign banks in India. With fuller capital account convertibility and greater presence of foreign banks over time, a number of issues will arise. First, if these large global banks have emerged as a result of real economies of scale and scope, how will smaller national banks compete in countries like India, and will they themselves need to generate a larger international presence? Second, there is considerable discussion today on overlaps and potential conflicts between home country regulators of foreign banks and host country regulators: how will these be addressed and resolved in the years to come? Third, given that operations in one country such as India are typically small relative to the global operations of these large banks, the attention of top management devoted to any particular country is typically low. Consequently, any market or regulatory transgressions committed in one country by such a bank, which may have a significant

impact on banking or financial market of that country, is likely to have negligible impact on the bank's global operations. It has been seen in recent years that even relatively strong regulatory action taken by regulators against such global banks has had negligible market or reputational impact on them in terms of their stock price or similar metrics. Thus, there is loss of regulatory effectiveness as a result of the presence of such financial conglomerates. Hence, there is inevitable tension between the benefits that such global conglomerates bring and some regulatory and market structure and competition issues that may arise.

V. Outlook

Recent global developments have considerably heightened the uncertainty surrounding the outlook on capital flows to India, complicating the conduct of monetary and liquidity management. In view of the strong fundamentals of the economy and massive injections of liquidity by central banks in advanced economies, there could be sustained inflows, as in the recent past. If the pressures intensify, it may necessitate stepped up operations in terms of capital account management and more active liquidity management with all instruments at the command of the Reserve Bank. At the same time, it is necessary in the context of recent global events not to exclude the possibility of reversals of capital flows due to any abrupt

changes in sentiments or global liquidity conditions. In this scenario, it is important to be ready to deal with potentially large and volatile outflows along with spillovers. In this context, there is headroom with the Reserve Bank to deal with both scenarios in terms of the flexibility in the deployment of instruments such as the MSS, the CRR, the SLR and the LAF for active liquidity management in both directions, complemented by prudential regulations and instruments for capital account management.

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Annex 1A: Measures to Manage Capital Inflows

Item	Current Regulations
Foreign Direct Investments	FDI is permitted under the Automatic Route in items / activities in all sectors up to the sectoral caps except in certain sectors where investment is prohibited. Investments not permitted under the automatic route require approval from Foreign Investment Promotion Board (FIPB). The receipt of remittance has to be reported to RBI within 30 days from the date of receipt of funds and the issue of shares has to be reported to RBI within 30 days from the date of issue by the investee company.
Advance against equity	An Indian company issuing shares to a person resident outside India can receive such amount in advance. The amount received has to be reported within 30 days from the date of receipt of funds. There is no provision on allotment of shares within a specified time. The banks can refund the amount received as advance, provided they are satisfied with the bonafides of the applicant and they are satisfied that no part of remittance represents interest on the funds received.
Foreign Portfolio Investments - FIIs	Investment by non residents is permitted under the Portfolio Investment Scheme to entities registered as FIIs and their sub accounts under SEBI (FII) regulations. Investment by individual FIIs is subject to ceiling of 10 percent of the PUC of the company and limit for aggregate FII investment is subject to limit of 24 percent of PUC of the company. This limit can be increased by the company subject to the sectoral limit permitted under the FDI policy. The transactions are subject to daily reporting by designated ADs to RBI for the purpose of monitoring the adherence to the ceiling for aggregate investments.
Foreign Portfolio Investments - NRIs	The investment by NRIs under the Portfolio Investment Scheme is restricted to 5 per cent by individual NRIs/OCBs and 10 per cent in aggregate (which can be increased to 24 percent by the company concerned).
Issue of ADR/GDR	Indian companies are allowed to raise resources through issue of ADR/GDR and the eligibility of the issuer company is aligned with the requirements under the FDI policy. The issue of Sponsored ADR/GDR requires prior approval of the Ministry of Finance. A limited Two-way Fungibility scheme has been put in place by the Government of India for ADRs/GDRs. Under this Scheme, a stock broker in India, registered with SEBI, can purchase shares of an Indian company from the market for conversion into ADRs/GDRs based on instructions received from overseas investors. Reissuance of ADRs / GDRs would be permitted to the extent of ADRs/GDRs which have been redeemed into underlying shares and sold in the Indian market.

Annex 1A: Measures to Manage Capital Inflows (Contd.)

Item	Current Regulations
Investment in Mutual Fund	FII and NRIs are allowed to invest in units of mutual fund without any limit.
Investments in Government Securities and T-Bills	FII are eligible to invest in these instruments within an overall limit of US \$ 5 billion. NRIs are allowed to invest in these instruments without any limit (both on repatriation and non repatriation basis). Multilateral institutions who have been allowed to float rupee bonds can invest in these instruments.
Investment in Corporate Debt	FII are permitted to invest in corporate debt within an overall limit of US \$ 3 billion.
Investment in Commercial Paper (CP)	FII are allowed to invest in CPs subject to the limit applicable to corporate debt. NRIs are allowed to invest in CPs on non repatriation basis.
Investments in Upper Tier-II instruments by Indian Banks	Investment by FII in Upper Tier II instruments raised in Indian Rupees is allowed subject to a separate ceiling of US \$ 500 million.
Investment in other debt instruments	NRIs are allowed to invest in non convertible debentures floated by Indian companies by way of a public issue. There is no limit on investment by NRIs in these instruments.
Foreign Venture Capital Investors (FVCI)	FVCIs registered with SEBI are allowed to invest in units of venture capital funds without any limit. FVCI investment in equity of Indian venture capital undertakings is also allowed. The limit for such investments would be based on the sectoral limits under the FDI policy. FVCIs are also allowed to invest in debt instruments floated by the IVCUs. There is no separate limit stipulated for investment in such instruments by FVCIs.
ECB	Under the Automatic Route, ECB up to US \$ 500 million per borrowing company per financial year is permitted only for foreign currency expenditure for permissible end-uses of ECB. Borrowers in infrastructure sector may avail ECB up to USD 100 million for Rupee expenditure for permissible end-uses under the Approval Route. In case of other borrowers, the limit for Rupee expenditure for permissible end-uses under the Approval Route has been enhanced to USD 50 million from earlier limit of US \$ 20 million.

Annex 1A: Measures to Manage Capital Inflows (Contd.)	
Item	Current Regulations
	<p>Entities in the services sector, viz., hotels, hospitals and software companies have been allowed to avail ECB up to US \$ 100 million, per financial year, for the purpose of import of capital goods under the Approval Route.</p> <p>The all-in-cost interest ceiling for borrowings with maturity of 3-5 years has been increased from 150 basis points over 6-month LIBOR to 200 basis points over 6-month LIBOR. Similarly, the interest ceiling for loans maturing after 5 years period has been raised to 350 basis points over 6-month LIBOR from 250 basis points over 6-month LIBOR.</p>
Trade Credit	<p>Import linked short term loans (Trade credit) up to US \$20 million per import transaction for all permissible imports with a maturity period of 1 year is allowed under the automatic route. Trade credit up to US\$20 million per import transaction with maturity period less than 3 years is allowed for import of capital goods under the automatic route.</p>
Delayed Import Payments	<p>In case of delayed import payments due to disputes and financial difficulties, ADs can remit the amount subject to all-in-cost ceiling of LIBOR plus 50 bps for period up to 1 year and LIBOR plus 125 bps for period less than 3 years. However, interest payment for delayed payment of trade credit can be made for period less than 3 years.</p>
Export Advance	<p>Export advance can be availed for 12 months. Rate of Interest for export advance up to 1 year is LIBOR plus 100 bps.</p>
Bank borrowing overseas	<p>Restricted to 25% of Tier I or US\$ 10 million whichever is higher. Borrowings for export finance and subordinated debt are outside this ceiling.</p>
Investments by NRIs in Immoveable Property	<p>The NRIs are permitted to freely acquire immoveable property (other than agricultural land, plantations and farmhouses). There are no restrictions regarding the number of such properties to be acquired. The only restriction is that where the property is acquired out of inward remittances, the repatriation is restricted to principal amount for two residential properties. [There is no such restriction in respect of commercial property]</p> <p>NRIs are also permitted to avail of housing loans for acquiring property in India and repayment of such loans by close relatives is also permitted.</p>

Annex 1B: Measures to Manage Capital Outflows

Item	Current Regulations
Direct investment overseas by corporates and registered partnerships	<p>Allowed up to 400 per cent of the net worth under automatic route.</p> <p>With a view to provide greater flexibility to Indian parties for investment abroad, it has been decided to allow Indian companies to invest in excess of 400 per cent of their net worth, as on the date of the last audited balance sheet, in the energy and natural resources sectors such as oil, gas, coal and mineral ores with the prior approval of the Reserve Bank.</p> <p>AD Category-I banks may allow remittance up to 400 per cent of the net worth of the Indian entities to invest in overseas unincorporated entities in oil sector after ensuring that the proposal has been approved by the competent authority and is duly supported by a certified copy of the Board Resolution approving such investment.</p>
Direct investment overseas by exporter proprietorships	Specific approval subject to conditions.
Portfolio investment by Indian listed companies	Allowed up to 50 per cent of the net worth in listed shares and rated and listed debt instruments.
Individuals (i) LRS Foreign security acquisition (ii) Qualification shares (iii) Shares of JV/WOS abroad by director of Indian employee/ parent (software only) (iv) ADR/GDR of Indian company in knowledge based sector by employees/ working directors v) ESOP, inheritance	i) \$200,000 for permissible capital and current accounts during a financial year. ii) 1 per cent of share capital with remittance restricted to \$20000 iii) \$10000 per employee in block of 5 years iv) \$50000 in block of 5 years v) Permitted
Domestic Mutual Funds in various overseas instruments	The MF can now invest overseas upto US \$ 7 billion in a wide range of instruments.

Annex 1B: Measures to Manage Capital Outflows (Concl.d.)	
Item	Current Regulations
Venture capital funds in venture capital	US\$ 500 million.
ECB	Prepayment of ECB up to US\$ 500 million can be allowed by AD Category - I banks without prior approval of the Reserve Bank subject to compliance with the minimum average maturity period as applicable to the loan.
Lending by Indian subsidiary to overseas parent	Case by case.
Bank lending overseas subsidiaries of Indian companies	Restricted to 20 per cent of net worth and to JVs/WOS of Indian companies with at least 51 per cent Indian share holding.

Annex 2

**Measures Towards Fuller Capital Account Convertibility
Recommendations by Tarapore Committee (2006)**

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| (i) | The Committee recommends that the overall ECB ceiling as also the ceiling for automatic approval should be gradually raised. Rupee denominated ECB (payable in foreign currency) should be outside the ECB ceiling. | (v) | Project exports should be provided greater flexibility and these facilities should be also provided for service exports. |
| (ii) | The Committee has concerns about the volume of trade credit as there could be sudden changes in the availability of such credit. Furthermore, there are concerns as to whether the trade credit numbers are fully captured in the data even while noting that suppliers' credit of less than 180 days are excluded from these data. Import-linked short-term loans should be monitored in a comprehensive manner. The per transaction limit of US\$ 20 million should be reviewed and the scheme revamped to avoid unlimited borrowing. | (vi) | FIIs should be prohibited from investing fresh money raised through PNs. Existing PN-holders may be provided an exit route and phased out completely within one year. |
| (iii) | Recognising that Indian industry is successfully building up its presence abroad, there is a strong case for liberalising the present limits for corporate investment abroad. The Committee recommends that the limits for such outflows should be raised in phases from 200 per cent of net worth to 400 per cent of net worth. Furthermore, for non-corporate businesses, it is recommended that the limits should be aligned with those for corporates. | (vii) | The Committee recommends that non-resident corporates should be allowed to invest in the Indian stock markets through SEBI-registered entities including mutual funds and Portfolio Management Schemes who will be individually responsible for fulfilling Know your Customer (KYC) and Financial Action Task Force (FATF) norms. The money should come through bank accounts in India. |
| (iv) | EEFC Account holders should be provided foreign currency current/savings accounts with cheque writing facility and interest bearing term deposits. | (viii) | At present, only multilateral institutions are allowed to raise rupee bonds in India. To encourage, selectively, the raising of rupee denominated bonds, the Committee recommends that other institutions/corporates should be allowed to raise rupee bonds (with an option to convert into foreign exchange) subject to an overall ceiling which should be gradually raised. |
| | | (ix) | The banks' borrowing facilities are at present restrictive though there are various special facilities which are outside the ceiling. The Committee recommends that the limits for borrowing overseas should be linked to paid-up capital and free reserves, and not to unimpaired Tier I capital, as at |

Annex 2 (Concl'd.)

- present, and raised gradually to 100 per cent by 2010-11. Ultimately, all types of external liabilities of banks should be within an overall limit.
- (x) At present, only mutual funds are permitted to invest overseas subject to stipulations for each fund. The Committee recommends that the various stipulations on individual fund limits and the proportion in relation to NAV should be abolished. The overall ceilings should be raised from the present level of US\$ 2 billion to US\$ 3 billion in Phase I (2006-07), to US\$ 4 billion in Phase II (by 2008-09) and to US\$ 5 billion in Phase III (by 2010-11). The Committee further recommends that these facilities should be available, apart from Mutual Funds, to SEBI registered portfolio management schemes.
- (xi) The present facility for individuals to freely remit US\$ 25,000 per calendar year enables individuals to open foreign currency accounts overseas. The Committee recommends that this annual limit be successively raised to US\$ 50,000 in Phase I, US\$ 100,000 in Phase II and US\$ 200,000 in Phase III. Difficulties in operating this scheme should be reviewed. Since this facility straddles the current and capital accounts, the Committee recommends that where current account transactions are restricted, *i.e.*, gifts, donations and travel, these should be raised to an overall ceiling of US\$ 25,000 without any sub-limit.
- (xii) At present only NRIs are allowed to maintain FCNR(B) and NR(E)RA deposits. The Committee recommends that non-residents (other than NRIs) should also be allowed access to these deposit schemes. Since NRIs enjoy tax concessions on FCNR(B) and NR(E)RA deposits, it would be necessary to provide FCNR(B)/NR(E)RA deposit facilities as separate and distinct schemes for non-residents (other than NRIs) without tax benefits. In Phase I, the NRs (other than NRIs) could be first provided the FCNR(B) deposit facility, without tax benefits, subject to KYC/FATF norms. In Phase II, the NR(E)RA deposit scheme, with cheque writing facility, could be provided to NRs (other than NRIs) without tax benefits after the system has in place KYC/FATF norms. The present tax regulations on FCNR(B) and NR(E)RA deposits for NRIs should be reviewed by the government.
- (xiii) At present, only NRIs are allowed to invest in companies on the Indian stock exchanges subject to certain stipulations. The Committee recommends that all individual non-residents should be allowed to invest in the Indian stock market through SEBI registered entities including mutual funds and Portfolio Management Schemes who will be responsible for meeting KYC and FATF norms and that the money should come through bank accounts in India.