

Management of Capital Flows: Indian Experience ¹

Ladies and Gentlemen,

One of the most significant developments in India in the recent years has been the spectacular surge in international capital flows. With the increase in capital flows and participation of foreign investors and institutions in the financial markets in India, the capital account has been the focus of attention. It is noteworthy that the expansion of capital flows has been much larger than that of international trade flows. A striking feature of the capital flows to India in the recent period is that private (debt and equity) flows, as opposed to official flows, have become a characterised portion in the composition of total capital flows. The capital account has been dominated by flows in the form of foreign direct investment (FDI), portfolio investments including ADR/GDR issues, external commercial borrowings and non-resident deposits. Indeed, the change in the size and composition of the capital account has played a significant role in the growing strength of the external sector of the Indian economy.

I. Approach to Capital Account Liberalisation in India

Following liberalisation and structural adjustment since 1991, India has embarked upon a policy of encouraging capital flows in a cautious manner. The strategy has been to encourage long-term capital inflows and discourage short-term and volatile flows. Broadly speaking, India's approach towards external capital flows could be divided into three main phases, viz. the first-phase (1950 to early 1980s) dominated by official flows, the second phase (early 1980s to 1990) replaced the traditional external sources of financing with recourse to commercial

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loans including short-term borrowings and deposits from non-resident Indians (NRIs), and the third phase (1991 onwards) with large capital flows as a result of massive liberalization of both current and capital account.

Since the initiation of the reform process in the early 1990s, India has encouraged all major forms of capital flows, though with caution from the viewpoint of macroeconomic stability. The broad framework for reforms in the external sector was delineated in the Report of the High Level Committee on Balance of Payments (Chairman: C. Rangarajan) in the aftermath of the balance of payments crisis in 1991. The Committee recommended, inter alia, liberalisation of current account transactions leading to current account convertibility; need to contain current account deficit within limits; 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 elements of flows from non-resident Indians; gradual liberalisation of outflows; and disintermediation of Government in the flow of external assistance. Following changes in exchange rate regime, as well as trade and investment policies' reform, there was a spurt in capital flows to India.

Drawing on the experience of the past decade and a half, India's approach to capital account liberalisation can be treated as a process and not an event with a distinction made between households, corporates and financial intermediaries, along with the recognition of a hierarchy of preferences for capital flows. Capital account liberalisation in India is kept in tune with other reforms sequencing with other concomitant developments such as strengthening of banking, fiscal consolidation, market development and integration, trade liberalisation, and the changing domestic and external economic environments. A hierarchy is

established in the sources and types of capital flows. The priority has been to liberalise inflows relative to outflows, but all outflows associated with inflows have been totally freed. While pursuing the medium-term objective of fuller capital account liberalisation, currently the need for pursuing controls of a prudential nature particularly on financial intermediaries and contextually, more active management of capital account is duly recognised.

Framework for Management of Capital flows

A distinction is made between residents and non-residents and among residents corporates, individuals and financial intermediaries. As indicated above in the case of non-residents the regime is liberal. In the case of residents the policy has provided a more liberal framework for corporate sector, a prudential framework for intermediaries and a limited window for overseas investments by individuals.

Outflows

- Indian companies can invest in (i) overseas Joint Ventures (JV) / Wholly Owned Subsidiaries (WOS) upto 400 per cent of their net worth under the Automatic Route and (ii) overseas securities (portfolio investment) abroad up to 50 per cent of the net worth
- Mutual Funds can invest overseas within an aggregate limit of USD 5 billion (increased to USD 7 billion recently).
- Individuals can remit upto USD 200,000 per year for any current account or permissible capital account transaction.

Inflows

- As a matter of policy, the sovereign does not borrow on a commercial basis in foreign currency. All commercial borrowings are in domestic currency and funding is available even at the long end upto 30 years.
- Indian Companies can borrow funds overseas within an aggregate annual ceiling and in terms of the framework prescribed for External Commercial Borrowings (ECB). The policy is reviewed from time to time and suitably adjusted in the light of the broader macro-economic situation.

- Foreign investment in Rupee debt (Government bonds and corporate bonds) is subject to a ceiling of USD 4.1 billion (2.6 for government debt and 1.5 for corporate bonds).
- Overseas borrowings by banks in India are restricted to 25% of Tier I capital. Borrowings for export finance, perpetual debt and subordinated debt are outside this ceiling.

II. Magnitudes and Composition of Capital Flows in India

External sector developments in the recent period have been dominated by strong capital flows. The net capital flows during 2006-07 were US \$ 45.8 billion, which have substantially increased to US \$ 81.9 billion during April-December 2007 (Table 1). Net capital flows to India as a percent of GDP increased from 2.2 per cent in 1990-91 to 5.0 per cent in 2006-07. This, however, does not reflect the true magnitude of capital flows to India. Gross capital inflows to India, as a percent of GDP more than trebled from 7.2 per cent in 1990-91 to 25.3 per cent in 2006-07 (Table 1). Much of this increase has been offset by a corresponding capital outflows on account of easy repatriation of capital by foreign investors, Indian investment abroad and repayment of external borrowings. Capital outflows increased from 5.0 per cent of GDP in 1990-91 to 20.3 per cent of GDP in 2006-07.

1: Magnitude of Major Items of Capital Flows in India

	(Per cent of GDP)							
	Inflows				Outflows			
	1990-91	2000-01	2005-06	2006-07	1990-91	2000-01	2005-06	2006-07
Total Capital Flows	7.2	11.8	17.9	25.3	4.9	9.8	14.7	20.3
<i>of which</i>								
1.Foreign Direct Investment	0	19	1.1	2.5	0	0.2	0.8	1.6
2.Foreign Portfolio Investment	0	3	8.4	11.9	0	2.4	6.9	11.2
3.External Assistance	1.1	0.6	0.5	0.4	0.4	0.5	0.2	0.2
4.Commercial Borrowings	1.4	2.1	1.8	2.3	0.6	1.2	1.5	0.5
5.Non Resident Indian Deposits	2.3	2	2.2	2.2	1.8	1.4	1.9	1.7

Source: Reserve Bank of India

There has been a steep decline in official capital flows with increase in non-debt flows, particularly private foreign investments, have gained in importance in the recent period, during 2006-07, however, there is a steep rise in the debt creating flows, mainly on account of rise in external commercial borrowings by Indian corporate (Table 2). The sharp rise in external commercial borrowings may be attributed to favourable liquidity and the interest rates in the global markets on the one hand, and rising financing requirements for capacity expansion domestically, on the other hand.

Table 2: Composition of Capital Inflows to India

	1990-91	2000-01	2003-04	2005-06	2006-07	Apr-Dec 2007
Net Capital Flows (US \$ million)	7,056	8,840	16,736	25,470	45,779	81,942
of which (in per cent)						
1. Non-Debt Creating Flows	1.5	66.3	82.1	73.6	34.5	50.5
a) Foreign Direct Investment	1.4	37.0	14.3	20.2	18.8	10.2
b) Foreign Portfolio Investment	0.1	29.3	67.9	53.4	15.7	40.3
2. Debt Creating Flows	71.1	30.3	7.7	29.6	51.2	41.5
a) External Assistance	31.2	4.6	-17.1	7.2	3.9	1.5
b) External Commercial Borrowings*	31.9	48.7	-17.5	11.6	35.8	19.9
c) Short-term Credits	15.2	6.2	8.5	7.3	7.3	13.2
d) Banking Capital	9.7	-22.2	36.0	5.9	4.6	7.0
of which						
NRI Deposits	21.8	26.2	21.8	11.9	8.7	-1.1
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	8.0
Total (1+2+3)	100.0	100.0	100.0	100.0	100.0	100.0

* 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 payments to IMF.

Foreign direct investment, foreign portfolio investment, non-resident deposits, external commercial borrowings and government borrowings from multilateral and bilateral sources constitute the major sources of external financing to India. FDI flows to India increased sharply from US \$ 9.0 billion in 2005-06 to US \$ 25.5 billion in April-December 2007, on the strength of strong economic

growth, positive investment climate, progressive liberalisation of FDI policy regime and simplification of procedures (Table 3). Sector-wise, manufacturing industries and services, particularly finance and business services, remained the major beneficiaries of FDI inflows. 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. Overseas direct investment from India jumped to US \$ 11.3 billion in 2006-07 from US \$ 3.8 billion in 2005-06 (Table 4).

Table 3: Foreign Direct Investment Flows to India

(US \$ million)

Item	2003-04	2004-05	2005-06	2006-07	Apr-Feb 2007
1	2	3	4	5	6
Direct Investment (I+II+III)	4,322	6,051	8,961	22,079	25,455
I. Equity (a+b+c+d+e)	2,229	3,778	5,975	16,482	20,636
a) Government (SIA/FIPB)	928	1,062	1,126	2,156	2,254
b) RBI	534	1,258	2,233	7,151	13,537
c) NRI	-	-	-	-	-
d) Acquisition of shares*	735	930	2,181	6,278^	4,345
e) Equity capital of unincorporated bodies#	32	528	435	897	500
II. Re-invested earnings+	1,460	1,904	2,760	5,091	4,476
III. Other capital++	633	369	226	506	343

*Relates to acquisition of shares of Indian companies by non-residents under Section 6 of FEMA, 1999.

Data on such acquisitions have been included as part of FDI since January 1996.

+ Data for 2005-06 are estimated as average of previous two years.

++ Data pertains to inter-company debt transactions of FDI entries.

^Include swap of shares of US \$3.1 billion.

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

Table 4: India's Direct Investment Abroad

(US \$ million)

Industry	2003-04	2004-05	2005-06	2006-07
1	2	3	4	5
Manufacturing	893	1,068	1,538	1,678
Financial Services	1	7	156	17
Non-Financial Services	456	283	531	7,681
Trading	113	181	215	532
Others	31	108	239	934
Total	1,494	1,647	2,679	10,842

Note: Data includes equity and loan components.

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

In India, portfolio investment mainly constitutes investment by foreign investors in equity and debt securities, funds raised by Indian mutual funds abroad (Off-shore Mutual Funds) and funds raised by Indian corporates abroad in the form of Global Depository Receipts (GDRs) and American Depository Receipts (ADRs). Among these, FII investment in Indian Stock Market constitutes the most important component of portfolio flows into India. FII investment has increased significantly from just US \$ 2.0 billion in 1995-96 to US \$ 31.0 billion mainly due to major liberalization of Indian equity market, simplification of rules and regulations for investments, and prominent growth of Indian economy (Table 5).

Table 5: Net Portfolio Investment Flows to India

(US \$ million)

Item	1995-96	2004-05	2005-06	2006-07	Apr-Feb 2007
1	2	3	4	5	6
Portfolio Investment (a+b+c)	2,748	9,315	12,492	7,003	30,995
a) GDRs/ADRs##	683	613	2,552	3,776	8,726
b) FIIs**	2,009	8,686	9,926	3,225	21,971
c) Off-shore funds and others	56	16	14	2	298

** Represents flow of funds (net) by foreign institutional investors (FIIs).

Represents the amount raised by Indian corporates through Global Depository Receipts (GDRs) and American Depository Receipts (ADRs).

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

While the foreign savings in the 1950s and 1960s largely emanated from concessional external assistance flows in the form of official aid/multilateral and bilateral credits, the 1970s, witnessed additional sources of external finance in the form of commercial borrowings and deposits from non-resident Indians (NRIs). Policy initiatives towards attracting such funds consisted of offering a menu of options to NRIs comprising facilities for current transfers, investments and deposit schemes. As a part of external debt management, careful monitoring of maturity profile and currency composition of NRI deposits has assumed importance. Outstanding balances under various NRI deposit schemes have increased steadily from US \$ 17.2 billion in 1995 to US \$ 41.2 billion in 2007 while NRI deposits witnessed a net outflow of US \$ 455 million during April-January of 2007-08 (Table 6), reflecting mainly the impact of two downward revisions in ceiling interest rates during January 2007 and April 2007.

Table 6: Net Inflows/Outflows under NRI Deposits

(US \$ million)

Year	1990-91	2000-01	2005-06 P	2006-07 P	2007-08 (Apr-Jan)
Total NRI Deposits	2,136	2,317	3,719	4,321	-455
<i>Of which</i>					
FCNR(B)	-	904	1,612	2,065	-620
NR(E)RA	384	860	1,177	1,830	-467
NR(NR)RD	-	553	-	-	-
NRO	-	-	930	426	632

Notes: FCNR(B): Foreign Currency Non-Resident (Banks)
NR(E)RA: Non-Resident (External) Rupee Accounts.
NR(NR)RD: Non Resident (Non-Repatriable) Rupee Deposits.
NRO: Non-Resident Ordinary Rupee Deposits.

Source: Reserve Bank of India Monthly Bulletin, March 2008.

Debt flows into India witnessed a large expansion during the recent years led by ECBs as gross disbursement increased from US 1.7 billion in 1990-91 to US \$ 21.5 billion during April-December 2007 (Table 7). Higher ECB drawals during the last few years reflect sustained domestic investment demand, import demand, exchange rate expectations and hardening of domestic interest rate as

also greater risk appetite of global investors for emerging market bonds. External assistance, which consists of external aid flows from bilateral and multilateral sources, has been declining in India's capital flows steadily during the last three decades. The share of external assistance in India's total capital flows has declined from 31.2 per cent in 1990-91 to 1.5 per cent in April-December 2007.

Table 7: External Commercial Borrowings to India

(US \$ million)

Year	Approvals	Gross Disbursement	Total debt service (amortization and interest)
1	2	3	4
1990-91	19,03	1,700	2,233
1995-96	6,286	4,538	4,473
2004-05	11,490	9,094	4,530
2005-06	17,175	14,343	14,569*
2006-07	26,156	20,325	5,954
Apr-Dec 2007	23,727	21,467	11,664

*: Includes redemption of IMDs US \$ 7.1 billion (principal US \$ 5.2 billion and interest US \$ 1.6 billion).
Source: India's External Debt: A Status Report, Government of India, Ministry of Finance, August 2007.

Overall, there is shift in the composition of capital flows in India from debt creating flows to non-debt creating flows and mostly in the form of equity flows and commercial borrowings.

III. Impact of Capital Flows on Indian Economy

(a) Monetary policy and Exchange rate

Conduct of monetary policy and management in the context of large and volatile capital flows has proved to be difficult for many countries. As India liberalised its capital account in a carefully sequenced manner since the 1990s, it too has been faced with similar problems. In general, the emerging market economies are facing the dilemma of grappling with the inherently increasing capital flows relative to domestic absorptive capacity. Governor Dr. Reddy has observed that the impossible trinity of fixed or managed exchange rate, open

capital account and discretion in monetary policy has to be managed in what could be termed as 'fuzzy' manner - a problem that gets exacerbated due to large uncertainties in global financial markets and possible consequences in the real sector. An important issue that arises in the context of capital flows in recent period is the inflation wedge of the domestic economy with the rest of the world. Higher inflation wedge would, in principle, translate into higher nominal interest rates and create the opportunities for cross - border interest rate arbitrage. In principle, movement in the exchange rate should take care of this phenomenon as real interest rate differentials (interest rates adjusted for inflation differentials) would be reflected in the movement of the exchange rate. However, in many developing countries, despite existence of significant inflation differentials, there is persistent pressure for exchange rate appreciation. This is due to the fact that positive forward prospects of the economic growth lead to higher capital inflows, which put upward pressure on the exchange rate and in turn create expectations for further exchange rate appreciation. Therefore, though, in the normal course, exchange rate movements should correct the capital flows, however, this has not been observed in the recent past. It is in this context that there is a need for active capital account management.

In similar line, in India, the prevailing higher interest rate along with higher growth rate have created lower risk perception and given rise to arbitrage opportunities, which has attracted higher capital inflows. The absorption of capital flows is confined to the current account deficit, which at present is prevailing at a low level. Given this, large capital inflows are a stress on the real economy through pressures on exchange rate appreciation and sterilizations. This not only adversely affects the exporters but also affects the profitability of the corporates through pressure on domestic prices, unless the productivity goes up

commensurately. Since there are limits to sterilization, the capital account management becomes important. In this context, it would be relevant to have a look at the broad policy framework towards capital flows in India along with the various monetary and regulatory measures adopted by the Reserve Bank of India to for the management of capital flows.

Another important development is that the determinants of exchange rate behavior seem to have altered dramatically over the last decade and half. Large capital inflows put upward pressure on the rupee and affected the exports in small and marginal sectors which provide large employment. It is also important to note that there is evidence of co-existence of higher trade deficit and appreciating real effective exchange rate (REER) in the recent period. In the recent period, despite a large trade deficit, rise in capital inflows has led to appreciation of the exchange rate, rather than depreciation. Capital flows are dominating the exchange rate movements, rather than movements in the trade account or current account.

(b) Financial Market Development

The capital inflows into India helped in improving depth of the financial markets with the increase in liquidity. The capital flows along with import of managerial skills substantially contributed to the development of financial markets, which made our financial system more robust and resilient to unexpected shocks. Of the different segments of the Indian financial markets, the forex and the equity markets provide the channel through which global crisis can spread to the Indian system. The BSE which had touched a peak of 20,873.33 on January 8, 2008, declined to 17,824.48 on February 28, 2008 mostly due to withdrawals by the FIIs in the wake of concerns over recession in the US economy. The decline was not so prominent because the economy is domestic led with strong growth

fundamentals which curbed the 'flight to quality', secondly buying support was provided by the domestic mutual funds having significant level of assets under management. As regards the forex market, the FII outflows did not lead to large scale depreciation of the rupee against US\$. With forex reserves of above US \$ 304.7 billion (March 21, 2008), the Reserve Bank has sufficient resources to handle any volatility in the forex market arising out of reversal of the capital flows.

IV. Emerging Issues

The large increase in capital flows to India in the recent period has generated the need for revisiting the issue of management of capital flows. Indian experience illustrates the tight link between external sector management and domestic monetary management. What may be small movements in capital flows for the rest of the world can translate into large domestic liquidity movements distorting market exchange rates and interest rates in India.

First, sterilizing excess liquidity has proved to be a challenging task in India. In the event of excess liquidity and consequent building up of demand pressures, increases in interest rates may be advocated to sustain growth in a non-inflationary manner. However, such action, apart from associated costs for growth and potential risks to financial stability, increases the possibility of further capital inflows so long as a significant part of these flows is interest sensitive and explicit policies to moderate flows are not undertaken. These flows can potentially reduce the efficacy of monetary policy tightening by enhancing liquidity. On the other hand, financial intermediaries need to be aware of sudden reversals in sentiment in global financial markets unrelated to economic fundamentals. Banks are, therefore, advised to ensure the hedging of their exposures and to undertake pre-emptive strategies to insulate their balance sheets from currency and interest rate

risks. In the medium-term, more durable policy responses need to be fashioned for enabling the absorption of capital flows into building productive capacity and a credible commitment to price and financial stability will continue to be necessary for desired positive outcomes.

The instruments used in sterilization of capital inflows need to be continuously refined. Each instrument, namely, Market Stabilization Scheme (MSS), Liquidity Adjustment Facility (LAF) and Cash Reserve Ratio (CRR), has different features and interactions. Utilization of each of these will also depend on what is the permanency of the components of the flows and how they should be sterilized in the aggregate. The quasi-fiscal cost of such sterilization would have an impact on the fiscal position. The cost should be visualized in terms of comforts associated with market stability, export competitiveness and possible crisis avoidance in the external sector. Sterilized 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. The cost of sterilization in India is usually shared by the Central Government (the cost of MSS), Reserve Bank (under LAF) and the banking system (in case of increase in the reserve requirements). Continuous assessment of indirect cost of sterilization and also the quantum of sterilization are important judgments which need to be made in conjunction with domestic monetary and liquidity conditions.

Second, it is increasingly felt that liberalizing outflows may not be of great help in the short-run because a greater liberalized regime generally attracts more inflows. Hence, while recourse to some encouragement to outflows such as the liberalization of overseas investment by our corporates in the real sector is helpful,

it has to be combined with other measures to manage the flows depending on their intensity.

Third, from the viewpoint of the active management of capital account, the nature of capital flows to India assumes critical importance. It is important that the public policy makes a conscious choice in terms of a hierarchy of capital flows by pitching for a priority for more stable components of capital flows. The flows on account of equity, foreign direct investment (FDI) into green field issues may be considered to be of a more permanent nature. Furthermore, long-term capital flows are generally preferred over short-term capital flows. Although the combined fiscal deficit of Centre and States is around 6 percent of GDP, it is less exposed to volatility of foreign capital flows since the investors in the debt market are largely domestic investors and there are limits on investments by foreigners in domestic government debt.

It has been the endeavour of the Reserve Bank to develop sound and efficient intermediaries and markets so as to provide foundations for a robust, efficient and diversified financial system, a key requisite for effective transmission of monetary policy. Although capital inflows are generally free except for a negative list in a few sectors, a number of initiatives have been taken by the RBI in the capital account- encompassing both inflows and outflows- to further develop and integrate financial markets with a view to enhancing allocative efficiency.

Fourth, in the face of large capital flows, the exchange rate policy of the Reserve Bank would continue to be guided by the broad principles of careful monitoring and management of exchange rates with flexibility, without a fixed target or a pre-announced target or a band, coupled with the ability to intervene, if and when necessary. With capital flows expected to be large and lumpy, even

when expected, tend to disturb the markets and hence, there would be a need to even-out the impact of such lumpy flows through policy interventions and statements, appropriately managing the expectations in the market.

Fifth, at the present juncture, the effects of financial turbulence on capital flows would be any of these three: (a) reduced flows, (b) increased flows, and (c) both (increase in one period followed by reduction in the subsequent period and vice versa, which means volatility). In the recent period, such volatility has been witnessed.

Sixth, as Governor Reddy has mentioned, given the adverse international experience with unfettered capital account liberalization, Indian approach towards management of capital flows has been risk averse and emphasizes active management of the capital account. The compositional shifts in the capital account have been consistent with the policy framework, imparting stability to the balance of payments. The sustainability of the current account is increasingly viewed as consistent with the volume of normal capital flows. The policy is to encourage non-debt creating flows and discourage short-term capital flows. Further, in view of entrepreneurial skills in India and evolving synergies in a global economy, overseas investment by Indian corporates has been receiving a positive response. Further, prudential regulations over financial intermediaries, especially over banks, in respect of their capital market exposure, real estate exposures, foreign exchange exposures and transactions are a dynamic component of management of capital account as well as financial supervision. Above this, India's large foreign exchange reserves provide a cushion against external shocks.

To sum up, India's foreign exchange reserves are at present comfortable, although pursuing this policy on a long-term basis raised the issue of sustainability of such strategy especially under the backdrop of uninterrupted inflows of foreign capital, optimum sterilization of such flows, appropriate instrument and cost of pursuing sterilization and associated liquidity management. In fact, the conduct of monetary policy and management in the context of large and volatile capital flows has proved to be difficult for many countries.

V. Concluding Observation

Going forward, there will be a continuous need to adapt the strategy of liquidity management as well as exchange rate management for effective monetary management and short-term interest rate smoothening. Emphasis will also have to be given to management of the capital account. In the face of large capital flows, global developments are expected to play an increasing role in determining the conduct of monetary and exchange rate policies in India. In an environment of global convergence, retaining independence of monetary policy will be a challenge calling for hard choices in terms of goals and instruments keeping in view domestic circumstances.
