

Report on

**Foreign
Exchange Reserves**

**Reserve Bank of India
Central Office
Mumbai**

2006-07 (covering period up to March 2007)

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Foreign Exchange Reserves

The Reserve Bank of India (RBI) undertook a review of the main policy and operational matters relating to management of the reserves, including transparency and disclosure and decided to compile and make public half-yearly reports on management of foreign exchange reserves for bringing about more transparency and also for enhancing the level of disclosure in this regard. These reports are being prepared with reference to positions as of 31st March and 30th September each year, with a time lag of about 3 months. The first such report with reference to September 30, 2003 was placed in the public domain on February 3, 2004. This is the eighth report on foreign exchange reserves with reference to March 31, 2007. The report is a compilation of quantitative information with regard to external reserves, such as, level of foreign exchange reserves, sources of accretion to foreign exchange reserves, external liabilities vis-à-vis foreign exchange reserves, prepayment/repayment of external debt, Financial Transaction Plan (FTP) of IMF, adequacy of reserves, etc. In order to avoid repetition, Sections II and III of the first report, dealing with various matters relating to the qualitative aspects of management of forex reserves and cross-country comparison of disclosure in respect of management of external reserves, respectively, do not figure in this report. Interested readers may refer to March 2004 issue of RBI Bulletin or visit RBI website (www.rbi.org.in) for accessing the first report on foreign exchange reserves.

Movement of Reserves

1. Introduction

The level of foreign exchange reserves had steadily increased from US\$ 5.8 billion as at end-March 1991 to US\$ 113.0 billion by end-March 2004 and further to US\$ 151.6 billion by end-March 2006. It stood at US\$ 199.2 billion as at end-March 2007 (Table 1). Although both US dollar and Euro are intervention currencies, the foreign exchange reserves are denominated and expressed in US dollar only.

Table 1: Movement in Reserves

					(US \$ million)
Date	FCA	SDR	GOLD	RTP	Forex Reserves
31-Mar-05	135,571	5 (3.0)	4,500	1,438	141,514
30-Sep-05	136,920	4 (3.0)	4,712	1,423	143,058
31-Mar-06	145,108	3 (2.0)	5,755	756	151,622
30-Sep-06	158,340	1 (0.9)	6,202	762	165,305
31-Mar-07	191,924	2 (1.0)	6,784	469	199,179

Note: 1. FCA (Foreign Currency Assets): FCA is maintained as a multicurrency portfolio, comprising major currencies, such as, US dollar, Euro, Pound sterling, Japanese yen, etc. and is valued in US dollars.

2. SDR: Values in SDR have been indicated in parentheses.

3. Gold: Physical stock has remained unchanged at approximately 357 tonnes.

4. RTP refers to Reserve Tranche Position in IMF

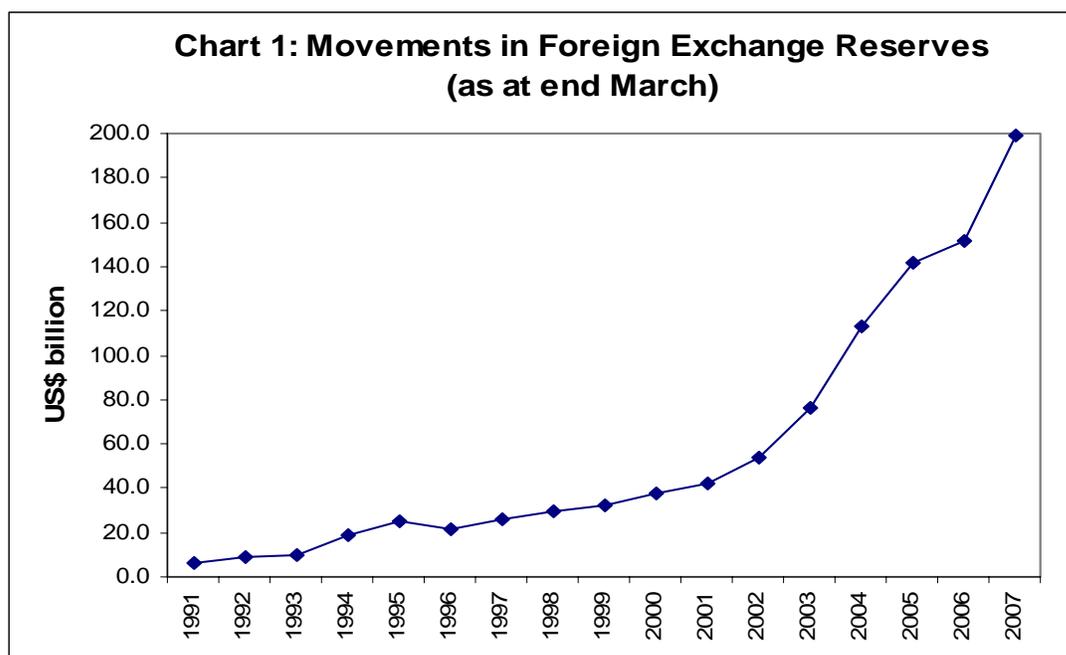
2. Review of Growth of Reserves since 1991

India's foreign exchange reserves have grown significantly since 1991. The reserves, which stood at US\$ 5.8 billion at end-March 1991 increased gradually to US\$ 25.2 billion by end-March 1995. The growth continued in the second half of the 1990s, with the reserves touching the level of US\$ 38.0 billion by end-March 2000. Subsequently, the reserves rose to US\$ 113.0 billion by end-March 2004, US\$ 141.5 billion by end-March 2005, US\$ 151.6 billion by end-March 2006 and further to US\$ 199.2 billion by end-March 2007 (Chart 1). It may be mentioned that forex reserves data prior to 2002-03 do not include Reserve Tranche Position (RTP) in IMF. Table 2 details the major sources of accretion to foreign exchange reserves during the period from March 1991 to March 2007.

Table 2: Sources of Accretion to Foreign Exchange Reserves since 1991

(US\$ billion)

Items			1991-92 to 2006-07 (April-March)
A		Reserve Outstanding as on end-March 1991	5.8
B.I.		Current Account Balance	-34.1
B.II.		Capital Account (net) (a to e)	212.2
	a.	Foreign Investment	109.3
	b.	NRI Deposit	29.2
	c.	External Assistance	13.9
	d.	External Commercial Borrowings	37.6
	e.	Other items in capital account	22.2
B.III.		Valuation change	15.3
		Total (A+BI+BII+BIII)	199.2



3. Sources of Accretion to Reserves in the Recent Period

The increase in foreign exchange reserves in the recent period has been on account of capital and other inflows. Major sources of increase in foreign exchange reserves for the year

2006-07 have been: (a) External commercial borrowings (b) foreign investment and (c) short-term credit. Table 3 presents sources of accretion to reserves during 2006-07.

Table 3: Sources of Accretion to Foreign Exchange Reserves

(US \$ billion)

Items		April-March 2006-07	April-March 2005-06
I.	Current Account Balance	-9.6	-9.2
II.	Capital Account (net) (a to f)	46.2	24.3
	a Foreign Investment	15.5	17.2
	b Banking Capital	2.1	1.4
	<i>Of which: NRI Deposits</i>	<i>3.9</i>	<i>2.8</i>
	c Short term credit	3.3	1.7
	d External Assistance	1.7	1.7
	e External Commercial Borrowings	16.1	2.7#
	f Other items in capital account	7.5*	-0.4
III.	Valuation change	10.9	-5.0
	Total (I+II+III)	47.5	10.1

Including the impact of IMD redemptions amounting to US \$ 5.5 billion.

* Includes 'Other Capital' (comprising leads and lags in export receipts, funds held abroad and the residual item of other capital transactions not included elsewhere such as flows arising from cross-border financial derivative and commodity hedging transactions, migrant transfers and sale of intangible assets such as patents, copyrights, trademarks), quota payments to IMF, remittances towards recouping the losses of branches/subsidiaries.

An analysis of the sources of reserves accretion during the entire reform period from 1991 onwards reveals that the increase in forex reserves has been facilitated by an increase in the annual quantum of foreign direct investment (FDI) from US \$ 129 million in 1991-92 to US\$ 6.1 billion in 2004-05 and further to US\$ 7.7 billion in 2005-06. During 2006-07, FDI recorded quantum jump to US\$ 17.7 billion. Outstanding NRI deposits increased from US\$ 13.7 billion at end-March 1991 to US\$ 33.0 billion as at end-March 2005 and further to US\$ 35.1 billion as at end-March 2006. As at end-March 2007, the outstanding NRI deposit stood at US\$ 39.5 billion. FII investments in the Indian capital market, which commenced in January 1993, have shown significant increase over the subsequent years. Cumulative net FII investments increased from US\$ 827 million at end-December 1993 to US\$ 45.3 billion at end-March 2006 and further to US\$ 52.0 billion as at end-March 2007. Turning to the current account, India's exports which were US\$ 17.9 billion during 1991-92 increased to US\$ 105.2 billion in 2005-06 and further to 127.1 billion in 2006-07. Invisibles, such as, private remittances have also contributed significantly to the current account. Net invisibles inflows increased from US\$ 1.6 billion in 1991-92 to US\$ 42.7 billion in 2005-06 and further to US\$ 55.3 billion in 2006-07. India's current account balance which was in deficit at 3.1 per cent of GDP in 1990-91 turned into a surplus of 0.7 per cent in 2002-03. A surplus of US \$ 14.1 billion was posted in the current account during the financial year

2003-04, driven mainly by the surplus in the invisibles account. However, this was not sustained during 2004-05, with the current account posting a deficit of US\$ 2.5 billion, driven mainly by the surge in oil prices in the international market. During 2005-06, current account deficit widened further and was of the order of US\$ 9.2 billion, driven mainly by strong import demand, both oil and non-oil. During 2006-07, the current account deficit amounted to US \$ 9.6 billion.

4. External Liabilities vis-à-vis Foreign Exchange Reserves

The accretion of foreign exchange reserves needs to be seen in the light of total external liabilities of the country. India's International Investment Position (IIP), which is a summary record of the stock of country's external financial assets and liabilities, is available as of December 2006 (Table 4).

Table 4: International Investment Position of India
(US \$ million)

	Item	December 2006 P
A	Assets	
1.	Direct investment abroad	21,648
2.	Portfolio investment	1,166
3.	Other investments	24,444
4.	Foreign Exchange Reserves	1,77,251
	Total Foreign Assets	2,24,509
B	Liabilities	
1.	Direct investment in India	65,325
2.	Portfolio investment	73,624
3.	Other investments	1,28,789
	Total Foreign Liabilities	2,67,738
	Net Foreign Liabilities (B-A)	43,229

P: Provisional

Source: Official website of Reserve Bank of India (<http://www.rbi.org.in>)

5. Prepayment/Repayment of external debt

The significant increase in forex reserves enabled prepayment of certain high-cost foreign currency loans of the Government of India from the Asian Development Bank (ADB) and the World Bank (IBRD) amounting to US\$ 3.03 billion during February 2003. During 2003-04, prepayment of certain high cost loans to IBRD and ADB amounting to US\$ 2.6 billion was carried out by the Government. Additionally, prepayment of bilateral loans amounting to US\$ 1.1 million was also made. Thus, the total quantum of prepayments was of the order of US\$ 3.7 billion during 2003-04. During 2004-05, prepayment of bilateral loan to the tune of US\$ 30.3 million was

made. During 2005-06, no prepayment of high-cost multilateral/bilateral loan was carried out. During 2006-07, there was only one prepayment of US\$ 58.7 million in the month of April 2006.

6. Financial Transaction Plan (FTP) of IMF

International Monetary Fund (IMF) designated India as a creditor under its Financial Transaction Plan (FTP) in February 2003, in terms of which India participated in the IMF's financial support to Burundi in March-May 2003, with a contribution of SDR 5 million and to Brazil in June-September 2003 with SDR 350 million. In December 2003, SDR 43 million was made available to Indonesia under FTP. During 2004-05, SDR 61 million was made available under FTP to countries like Uruguay, Haiti, Dominican Republic and Sri Lanka. During May-June 2005, SDR 34 million was made available to countries like Turkey and Uruguay. Thus, the total quantum of India's contribution under FTP by way of purchase was SDR 493 million at end-June 2005. There were no purchase transactions after June 2005. India was included in repurchase transactions of the FTP since November 2005. There have been 9 repurchase transactions during the period from November 2005 to April 2007 totaling SDR 677 million received from 5 countries, viz., Turkey, Algeria, Brazil, Indonesia and Uruguay.

7. Adequacy of Reserves

Adequacy of reserves has emerged as an important parameter in gauging its ability to absorb external shocks. With the changing profile of capital flows, the traditional approach of assessing reserve adequacy in terms of import cover has been broadened to include a number of parameters which take into account the size, composition and risk profiles of various types of capital flows as well as the types of external shocks to which the economy is vulnerable. The High Level Committee on Balance of Payments, which was chaired by Dr. C. Rangarajan, erstwhile Governor of Reserve Bank of India, had suggested that, while determining the adequacy of reserves, due attention should be paid to payment obligations, in addition to the traditional measure of import cover of 3 to 4 months. In 1997, the Report of Committee on Capital Account Convertibility under the chairmanship of Shri S.S.Tarapore suggested four alternative measures of adequacy of reserves which, in addition to trade- based indicators, also included money-based and debt-based indicators. Similar views have been held by the Committee on Fuller Capital Account Convertibility (Chairman: Shri S.S.Tarapore, July 2006).

In the recent period, assessment of reserve adequacy has been influenced by the introduction of new measures. One such measure requires that the usable foreign exchange reserves should exceed scheduled amortisation of foreign currency debts (assuming no rollovers) during the following year. The other one is based on a "Liquidity at Risk" rule that takes into account the foreseeable risks that a country could face. This approach requires that a country's foreign exchange liquidity position could be calculated under a range of possible outcomes for

relevant financial variables, such as, exchange rates, commodity prices, credit spreads etc. Reserve Bank of India has done exercises based on intuition and risk models in order to estimate "Liquidity at Risk (LAR)" of the reserves.

The traditional trade-based indicator of reserve adequacy, viz, import cover of reserves, which fell to a low of 3 weeks of imports at end-December 1990, rose to 11.5 months of imports at end-March 2002 and increased further to 14.2 months of imports or about five years of debt servicing at end-March 2003. At end-March 2004, the import cover of reserves was 16.9 months, which came down to 14.3 months as at end-March 2005 and further to 11.6 months as at end-March 2006. The import cover for reserves was 12.4 months at end-March 2007. The ratio of short-term debt to foreign exchange reserves declined from 146.5 per cent at end-March 1991 to 5.3 per cent as at end-March 2005, but increased slightly to 5.7 per cent as at end-March 2006 and further to 6.0 per cent at end-March 2007. The ratio of volatile capital flows (defined to include cumulative portfolio inflows and short-term debt) to reserves declined from 146.6 per cent as at end-March 1991 to 35.2 per cent as at end-March 2004. However, this ratio increased moderately to 36.9 per cent as at end-March 2005 and further to 43.4 per cent as at end-March 2006 and decreased to 38.2 per cent as at end March 2007.

8. Investment Pattern and Earnings from Foreign Exchange Reserves

The foreign exchange reserves are invested in multi-currency, multi-asset portfolios as per the existing norms, which are similar to international practices in this regard. As at end-March, 2007, out of the total foreign currency assets of US\$ 191.9 billion, US\$ 53.0 billion was invested in securities, US \$ 92.2 billion was deposited with other central banks, BIS & IMF and US\$ 46.8 billion was in the form of deposits with foreign commercial banks. (Table 5)

Table 5: Deployment Pattern of Foreign Exchange Reserves

(US \$ Million)

	As on March 31, 2007	As on September 30, 2006
(1) Foreign Currency Assets	191,924	158,340
(a) Securities	52,996	34,150
(b) Deposits with other central banks, BIS & IMF	92,175	76,441
(c) Deposits with foreign commercial banks	46,753	47,749
(2) Special Drawing Rights	2	1
(3) Gold (including gold deposits)	6,784	6,202
(4) Reserve Tranche Position	469	762

(5) Total Foreign Exchange Reserves	199,179	165,305
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During the year 2005-06 (July-June), the return on foreign currency assets and gold, after accounting for depreciation, increased to 3.9 per cent from 3.1 per cent during 2004-05, mainly because of hardening of global short-term interest rates.