

VII

EXTERNAL SECTOR

Introduction

7.1 The external sector has exhibited a marked transformation since the balance of payments crisis in 1991. The crisis was overcome by a series of stringent measures with an overriding objective to honour all external obligations without resorting to rescheduling of any external payment obligation. While successfully dealing with the crisis through an adjustment programme, it was decided to launch simultaneously a comprehensive programme of structural reforms in which the external sector was accorded a special emphasis.

7.2 After the 1991 crisis, the broad approach to reform in the external sector was laid out in the Report of the High Level Committee on Balance of Payments, 1993 (Chairman: C. Rangarajan). The objectives of reform in the external sector were conditioned by the need to correct the deficiencies that led to the payment imbalances of 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 the key contributing factors to the crisis, a series of reform measures was put in place. A swift transition to a market determined exchange rate regime was felt necessary so as to deal effectively with the uncertain response to reforms introduced in other areas of the external sector at that time. It may be recalled that other reforms initiated in the external sector included dismantling trade restrictions, moving towards current account convertibility, liberal inflows of private capital, removal of restrictions on all inflows and related outflows, as also, gradual liberalisation of certain restrictions on outflows. The overall objective of the reform process was to achieve higher growth and efficiency without exposing the system to greater vulnerability. Consumer welfare was sought to be improved by making available better quality products at globally competitive prices and by providing greater freedom of choice to residents to undertake current transactions on a global scale.

7.3 Responding to the reform process, the external sector has gained considerable strength, resilience and stability. This is evident from an unprecedented accretion to reserves, modest current account deficit (of late, a surplus), larger non-debt creating capital

inflows, orderly exchange rate movements and containment of external debt within sustainable levels. Notwithstanding these comforts, there are areas of concern and challenges, arising primarily from the growing openness of the economy, the need for accelerating growth in the medium-term and also the need to meet the Tenth Plan growth target through higher capital flows for investment. In this context, while it is important to review and assess the impact of various reform programmes and policies relating to the external sector, there is also a need to examine a range of emerging issues. These include: current account sustainability in the wake of increased openness, the possibility of a “Dutch disease” type effect (on account of strong performance of software exports and remittances), more open capital account and cost of accretion to reserves, including its implications for monetary management.

7.4 Against this backdrop, this Chapter attempts to profile the changes in the external sector and its implications for macroeconomic management. Section I analyses the developments relating to trade liberalisation in terms of tariff rationalisation and dismantling of quantitative restrictions, institutional arrangements, strengthening of regional groupings and India’s position in the World Trade Organisation (WTO). Section II discusses the changing structure of foreign trade, changing role of invisibles in the current account, and the current account balance in the post reform period. Section III presents an overview of the capital account developments and outlines the capital account liberalisation process in India. This section also offers an assessment of the external debt scenario in India and the exchange rate developments. Section IV examines the range of issues relating to adequacy of foreign exchange reserves and the associated implications for monetary management and growth. Concluding observations are set out in Section V.

I. TRADE REFORMS, INSTITUTIONAL ARRANGEMENTS AND INDIA’S POSITION IN THE WORLD TRADE ORGANISATION (WTO)**Trade Reforms**

7.5 Trade reforms formed an integral part of the overall structural reform process. An open trade regime has been viewed as the least vulnerable form of

globalisation with enormous opportunities for higher growth emanating from higher exports and higher welfare resulting from the possibility to make available better quality products at globally competitive prices under competition from liberalised imports (Krueger, 1998). This has been the rationale and the guiding principle for the trade reforms in India. As has been brought out by a number of individual and cross-country studies, trade restrictions reduce real economic growth by distorting the pattern of resource allocation, and by discouraging innovation and technical progress. Import substitution inflicts static costs on the economy by way of resource misallocation as also dynamic costs by raising the incremental capital-output ratios and exclusion from new technology. While the traditional argument for free trade in terms of allocative efficiency is made under the assumption of perfect competition, it is also argued that in imperfectly competitive markets, increased competition through trade would bring about welfare

gains by reducing the dead-weight losses engendered by domestic monopolies and oligopolies (Helpman and Krugman, 1989). Beneficial impact of trade liberalisation on economic growth is also envisaged through the international production networks which spread the sequential production processes across national boundaries. Some of the channels through which trade liberalisation would affect the welfare of the people are: the access to imported goods, relative prices of tradable goods, relative wages of skilled and unskilled labour, impact on government revenue, incentives for investment and innovation affecting economic growth, and the vulnerability of the economy to external shocks (Bannister and Thugge, 2001). In the debate on the sequencing of different channels of globalisation, the general view has favoured sequencing driven by trade liberalisation (Edwards and van Wijnbergen, 1986; Rodrik, 1987; Mussa, 1984). Box VII.1 sets out the cross-country experience on trade liberalisation.

Box VII.1

Trade Liberalisation: Cross-Country Experience

The rationale for trade reforms is essentially based on the drawbacks of trade intervention, as well as superior growth performance of countries that adopted liberal outward-oriented policies. The inward-looking trade policies adopted by the developing countries till the 1980s were rooted in the argument that trade policies should not be conditioned by prevailing world relative prices, given the low income and price elasticities of primary commodities which could lead to a secular deterioration in the terms of trade. The arbitrary nature of quantitative restrictions that characterises trade interventions creates uncertainty for domestic producers and consumers. These distortions are manifested in efficiency losses in domestic production, weak competition in the domestic market, and emergence of rent seeking behaviour and corruption. The removal of quantitative restrictions or their conversion into tariffs, as part of trade reform package, has several advantages such as reduction in scope for rent-seeking, transfer of rents from the importers to the government, and greater transparency and predictability of the trade regime. Moreover, due to the measurability of tariff reductions, the designing and monitoring of trade reform has become easier. Endogenous growth literature (Sala-i-Martin, 1990; Baldwin and Francois, 1999) suggests that beneficial impact of trade reforms on economic growth could arise through technology transmission, international integration of production, reduction of price distortions and enhanced efficiency.

Till the early 1980s, the pattern of trade policy across countries broadly reflected the extreme preferences of national policy makers for export-pessimism-cum-import substitution on the one hand and export-led growth on the other. In tandem with global developments, export-promotion and greater trade integration became the policy objective of almost every country by the 1990s,

although the extent of trade integration varied considerably across countries. Even so, some general features of trade liberalisation include tariff reductions, quota elimination, relaxation of import licensing, conversion of quotas into tariff, compression of the range of tariffs and rationalisation of collection arrangements (Greenaway, 1998). Dismantling of tariff and non-tariff barriers under the multilateral trading arrangements also exposed many inward-looking economies to external competition. Since developing countries depend to a large extent on trade tax revenues, one of the important concerns regarding trade liberalisation was its revenue implications. It has generally been observed that the revenue implications of trade liberalisation are uncertain and depend upon the country's initial conditions and the components of the reform package which should be kept in view while formulating the trade liberalisation strategy (Blejer and Cheasty, 1990; Tanzi, 1989; Greenaway and Milner, 1991; IMF, 1998). As far as the sequencing of reforms is concerned, domestic factor (labour) markets need to be liberalised before commodity markets so as to facilitate production decisions. Trade liberalisation also needs to precede capital account liberalisation in order to preclude further distortions in domestic production consequent upon capital inflows to those sectors.

Loser and Guerguil (1999) have documented the impact of a sharp reversal in trade policy of the Latin American and Caribbean (LAC), countries particularly in the 1990s, from import substitution to trade liberalisation. Trade reform mainly comprised: (i) a significant reduction in both average tariff (from 45 per cent in 1986 to 14 per cent in 1998) and maximum tariff (from 80 per cent to about 30 per cent); (ii) removal of most of the quantitative and other

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non-tariff barriers which consequently affected only 11 per cent of total imports in 1997 as against almost 40 per cent in the mid-1980s; and (i ii) liberalisation of currency markets and elimination/reduction of foreign exchange controls on international payments.

A comparison of the trends in the trade restrictiveness index, the real effective exchange rate and import and export ratios for a number of LAC countries shows that: (i) trade liberalisation was both significant and rapid; (ii) trade policy reform coincided with currency appreciation in almost all countries; (iii) the import ratio increased significantly (an average of 5 percentage points) in all the countries and within a short time span (2-3 years), perhaps responding to currency appreciation. There was a shift in the composition of imports from primary products to manufactures; (iv) the response of the export ratio was relatively small and delayed (an average increase of 4 percentage points after a lag of 6 years), indicating that the positive impact of trade liberalisation was partially dampened by currency appreciation; and (v) remaining market restrictions including those in respect of the labour market, competition and financial markets tended to increase costs and circumscribe productivity gains, limiting thereby the positive impact of trade liberalisation.

The high growth rate of the East Asian economies, including Hong Kong, Indonesia, Malaysia, Korea, Singapore and Thailand (at least till the financial crisis of 1997) was, to a large extent, based upon their export performance. All these countries adopted strategic export policies that set up a free trade regime and offered a gamut of incentives for exports. Furthermore, general import restrictions were not imposed even in the face of current account deficits. In general, trade liberalisation was part of a policy package that comprised devaluation, exchange rate unification, fiscal reforms and foreign aid or concessional loans to neutralise the impact of a temporary current account deficit. The export strategy adopted by these economies included at least one of the following four elements, *viz.*, access to imports at international prices (*via* free trade/export processing zones, tariff exemptions, duty drawbacks); export financing (often at subsidised rates); market penetration (*via* direct income tax incentives, exporter associations, setting up of international trading companies); and flexibility.

An IMF study (1999) on the experience of six countries, *viz.*, Argentina, Philippines, Poland, Morocco, Malawi and Senegal which undertook trade liberalisation over the mid-1980s to mid-1990s shows that phasing out of quantitative restrictions received priority in all cases, although the pace and nature of the reform was guided by revenue concerns. Poland in 1990 placed strong emphasis on eliminating quantitative restrictions which was an integral element of its 'big bang' transformation. The 1991 trade reform programme in Argentina included tariffication of certain import quotas and the elimination of some reference prices. Malawi's trade liberalisation programme in the late 1980s included a focus on eliminating foreign exchange rationing. Similarly, Senegal embarked in 1986 on a phased reduction of quantitative restrictions. The Philippines concentrated on the tariffication of quantitative restrictions during the initial phase of its trade liberalisation efforts. Morocco's reforms adopted in 1983 included

a gradual elimination of quantitative restrictions on imports and the abolition of import deposit requirements.

All countries in the sample also stressed tariff reductions in their reform programmes, though to varying degrees. Senegal's liberalisation efforts in the mid-1980s were hampered by weak macroeconomic management and stagnant trade. As a result, tariff reductions were accompanied by serious revenue shortfalls which led to a reversal of the tariff cuts. The second phase implemented in conjunction with the 1994 devaluation was successful. In the Philippines, reduced reliance on trade taxes has at times been constrained by the weakness of domestic tax mobilisation. Along with tariffication of quotas, a temporary import surcharge was imposed in the early 1990s. As a result, the collected tariff rate declined only slightly from 16.7 per cent in 1985 to 14.4 per cent in 1995. Several countries gave high priority to reducing tariff dispersion and consolidating tariff structures. Some countries also demonstrated how domestic taxes can reinforce the protection provided by trade taxes and also highlighted the importance of broadening the domestic tax base as part of an overall liberalisation package.

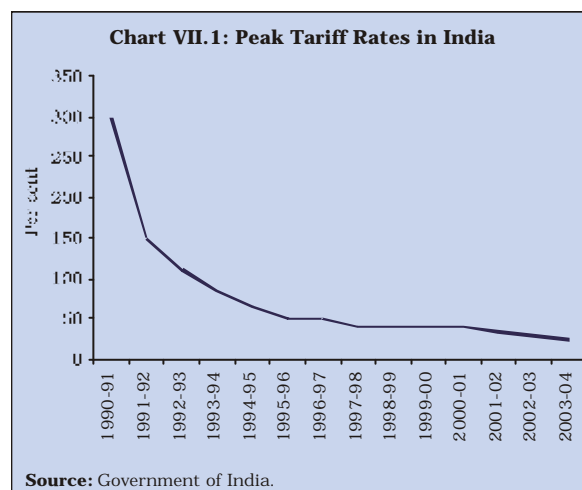
A study by OECD (2001) on the trade reforms undertaken by transition economies (the Central Eastern and European Countries (CEECs) and the countries belonging to the Commonwealth of Independent States (CIS)) since the beginning of the 1990s, observes that: (i) the uneven progress and diverse outcomes of the reforms in individual transition countries resulted from a complex interaction of initial economic and political conditions prevailing in individual countries and the choice of their reform strategies; (ii) regional integration and multilateral disciplines played a critical role in this process by providing legal and regulatory guidance for designing new trade policies and by imposing trade policy commitments thereby stabilising trade liberalisation achievements and reducing the risk of protectionist reversals; (iii) recent developments in transition economies show a clear relation between GDP performance and trade openness. In general, between 1990 and 1999, most CEECs saw their GDP and exports per capita increase simultaneously. Few exceptions to this general trend can be explained by special situations of individual countries, recently affected by regional conflicts (Bulgaria) or by the financial and economic crisis in Russia in 1998 (Latvia, Lithuania). By contrast, all CIS countries were confronted with the parallel contraction of per capita GDP and exports; (iv) at the beginning of the transition process, many CEECs recorded a trade surplus, due to drastically devalued exchange rates. Later, exchange rate appreciation and a revival of domestic demand fuelled import growth, while exports started to lag behind, partly because of the contraction of external demand, but mostly due to delays in restructuring. As a result of these cumulative effects, most transition economies faced serious deterioration of their trade balance. Measured as the percentage share of GDP, current account deficits reached critical levels in several transition countries, both among the CEECs (11 per cent of GDP in Lithuania in 1999) and the CIS (46 per cent of Turkmenistan's GDP in 1999). In this regard, Russia, as a major commodity exporter, has been an exception.

7.6 In the post-war period, several developing countries pursued import substitution-led development strategies. Poor growth resulting from such strategies, however, led to policy reorientation in the early 1960s. While one set of countries started giving more incentives for the export sector even while persisting with a moderate form of import substitution (for instance, Brazil, Argentina and Mexico), another set of countries made a more fundamental shift in favour of outward orientation (for instance Korea, Singapore and Taiwan) (Balassa, 1989). The Indian development strategy recognised the significance of liberal trade policy in the early 1980s, which was manifested in the form of a number of important recommendations made at that time by several Committees. The notable ones focused on a shift in emphasis from control to deregulation through simplification in import licensing system (Alexander Committee, 1978), clear recognition of dynamic comparative advantages associated with export growth (Tandon Committee, 1980), the need to harmonise foreign trade policies with other macroeconomic policies, advantages of an export-led growth strategy, a phased reduction in effective protection (Abid Hussain Committee, 1984) and the need to discourage inefficient import substitution (Narasimham Committee, 1985). Notwithstanding these concerns, the trade regime continued to be characterised by a licensing system which together with a high tariff structure protected the economy from external competition. In addition, the trade performance was constrained by restrictive foreign investment policies (RBI, 1999).

7.7 The process of trade liberalisation, however, gathered momentum only during the 1990s in the aftermath of the external payments crisis. The policy measures undertaken aimed at making domestic industry cost-efficient by enhancing efficiency in resource use under international competition, which was expected to derive a better export performance in the long-run. The major trade policy changes in the post-1991 period included simplification of procedures, removal of quantitative restrictions, and substantial reduction in the tariff rates as also their dispersion as recommended by the Tax Reforms Committee, 1992 (Chairman: Raja J. Chelliah). Furthermore, the reach of the export incentives was broadened, extending the benefits of various export-promotion schemes to a large number of non-traditional and non-manufactured exports. Following the announcements in the Export Import (EXIM) policies, various changes were effected such as the removal of quantitative restrictions, strengthening the export production base, removal of procedural bottlenecks, technological upgradation and

improvement of product quality. Various steps were also taken to promote exports through multilateral and bilateral initiatives, including identification of thrust areas and focus regions. The policy stance also marked a move away from the provision of direct export subsidy to indirect promotional measures. India also took several policy initiatives at the multilateral levels for tariffication of the non-tariff barriers. As per India's commitment to the World Trade Organisation (WTO), India agreed to the phased removal of all balance-of-payments (BoP) related quantitative restrictions by end-March 2001.

7.8 The tariff rates have undergone considerable rationalisation during the 1990s. Prior to the 1990s, the maximum import duty rates on certain items were over 300 per cent. The peak rate of import duty on non-agricultural imports was gradually reduced from as high as 150 per cent in 1991-92 to 25 per cent (excluding agriculture and dairy products) by 2003-04 (Chart VII.1) The weighted average import duties on various goods, even though reduced from the high levels prevailing earlier, are still higher than that of some of the East Asian countries (Table 7.1). The rate for China is expected to be phased down to less than 10 per cent in the coming years as part of China's agreement in connection with its WTO entry (Government of India, 2001).



7.9 The weighted average tariff rates of India for various broad import groups are set out in Table 7.2. It is observed that although the average tariff rate declined steadily from 1991-92 to 1996-97, thereafter, it edged up again, *inter alia*, due to the imposition of various surcharges. The increase in the weighted average tariff rates since 1998-99 has been predominantly in agriculture and consumer goods sectors.

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Table 7.1: Tariff Barriers Across Select Emerging Market Economies

(Per cent)

Country	Year	All Products			Primary Products		Manufactured Products	
		Simple Mean tariff	Standard Deviation of tariff rates	Weighted Mean tariff	Simple Mean Tariff	Weighted Mean Tariff	Simple Mean Tariff	Weighted Mean Tariff
	1	2	3	4	5	6	7	8
China	1992	41.0	30.6	32.2	35.4	13.9	42.3	36.5
	2000	16.3	10.7	14.7	16.5	18.8	16.2	13.7
Indonesia	1989	21.9	19.7	13.0	19.9	5.8	22.3	15.6
	2000	8.4	10.8	5.2	6.3	2.8	8.9	6.7
Malaysia	1988	17.0	15.1	9.4	15.2	4.6	17.4	10.5
	1997	9.3	33.3	6.0	7.0	10.0	10.3	5.4
Philippines	1989	28.0	14.2	22.4	29.6	18.5	27.7	23.6
	2000	7.6	7.9	3.8	11.9	7.5	6.9	3.3
Thailand	1989	38.5	19.6	33.0	30.6	24.2	39.6	35.7
	2000	16.6	14.1	10.1	21.9	9.5	15.7	10.2
India	1990	79.0	43.6	49.6	69.1	25.4	80.2	69.9
	1999	32.5	12.3	28.5	30.9	23.2	32.8	32.7

Note:

(i) Simple mean tariff: Unweighted average of the effectively applied rates for all products subject to tariffs.

(ii) Standard deviation of tariff rates: Average dispersion of tariff rates around the simple mean.

(iii) Weighted mean tariff: Average of effectively applied rates weighted by the product import shares corresponding to each partner country.

Source : World Bank, 2002.

Table 7.2: Weighted Average Import Duty Rates in India

(Per cent)

Year	Agri-culture	Mining	Con-sumer Goods	Inter-mediate Goods	Capital Goods	All Commo-dities
	1	2	3	4	5	6
1991-92	47.0	56.9	97.8	69.5	94.8	72.5
1992-93	22.8	32.6	83.2	62.6	85.2	60.6
1993-94	19.8	33.4	68.7	47.6	58.4	46.8
1994-95	16.8	30.3	55.9	38.4	45.5	38.2
1995-96	16.7	29.9	36.1	22.9	29.1	25.9
1996-97	14.7	22.0	39.0	21.9	28.8	24.6
1997-98	14.0	21.9	33.8	46.1	25.1	25.4
1998-99	24.2	19.9	37.9	31.1	29.4	29.2
1999-00	24.4	21.4	37.4	33.1	31.0	31.4
2000-01	58.6	16.1	56.2	36.2	34.4	35.7
2001-02	57.7	15.8	67.1	34.8	31.8	35.1

Source : Report of the Task Force on Employment Opportunities, Planning Commission, Government of India, July 2001.

7.10 The Government, however, is committed to reducing tariffs to levels comparable with those prevailing in East Asian economies. The Finance Minister in the Union Budget for 2001-02, had stated that there would be a progressive move within three years to reduce the number of rates to the minimum with a peak rate of 20 per cent. This was reiterated in

the Union Budget for 2002-03, wherein it was stated that by 2004-05, there would be only two basic rates of customs duties, namely 10 per cent covering raw materials, intermediates and components and 20 per cent covering final products. Keeping in line with these announcements, the Union Budget for 2003-04 while reducing the customs duties on several products, brought down the peak tariff rate to 25 per cent (excluding agriculture and dairy products).

Removal of Quantitative Restrictions

7.11 India has been following a consistent policy for gradual removal of import restrictions since 1991, when the economic reforms were initiated. India began removing BoP related Quantitative Restrictions (QRs) unilaterally since 1996. QRs were removed on 488 items in 1996, 391 items in 1997 and 894 items in 1998. As per India's commitments to the WTO, out of the remaining 1,429 items for which QRs were maintained on BoP grounds under the General Agreement on Tariffs and Trade (GATT) provisions, QRs on 714 items were removed on March 31, 2000 and the balance QRs on 715 items were removed on March 31, 2001. With this progressive removal of QRs maintained on BoP considerations, restrictions, still in force only relate to those items as permissible under Articles XX and XXI of the GATT on grounds

such as security, health, safety, or moral conduct. While removing QRs, the Government has taken several safeguard measures (adjustment of tariffs, imposition of temporary QRs, safeguard duties, anti-dumping duties and restricting the import of certain agricultural products) in order to guard against any surge in imports on account of dumping. A high-powered Standing Group functions on a war footing for tracking, collating and analysing data on 300 sensitive items of importance to the public.

7.12 Reflecting the relaxation of quantitative restrictions, the proportion of canalised items in total imports in value terms declined from 27 per cent to 19 per cent between the ten-year period from 1988-89 to 1997-98. With effect from April 1998, 340 items were shifted from the 'Restricted list' to the 'Open General Licence (OGL) list'. With effect from March 31, 1999, the convention of publishing a negative list for imports and exports was discontinued. The share of tariff lines without restrictions has now gradually increased to around 95 per cent since April 1, 2001 from a level of 61 per cent as on April 1, 1996.

Institutional Arrangements

7.13 The policy thrust on exports during the 1980s and 1990s was promoted through several schemes. These schemes have been refined further during the 1990s and new schemes have also been introduced.

- Export Processing Zones (EPZs) were set up as enclaves separated from the Domestic Tariff Area (DTA) by fiscal barriers and intended to provide an internationally competitive duty free environment for export production at low cost. Eight of the EPZs have since been converted into Special Economic Zones (SEZs).
- The Export Oriented Units (EOUs) Scheme, which is complementary to the EPZ scheme, was set up in 1981 under which a unit can be set up in any of the seven EPZs or at any other location in the country and be eligible for a host of liberal package of incentives which include same entitlements as given to EPZs.
- In order to fully exploit the potential in the Information Technology (IT) sector and to promote IT related exports, the Central Government has set up Software Technology Parks (100 per cent EOUs) since 1991.
- To build a strong and efficient electronics industry with good export potential, Electronic Hardware Technology Parks (EHTPs) were also set up.
- The SEZ Scheme was announced in March 2000 in order to promote export production in a hassle-free atmosphere (Box VII.2).

- The proposal to set up Agriculture Economic Zones (AEZs) was announced in March 2001 to promote the export of agro and agro-based products, and 45 AEZs have been sanctioned so far. The Central Government would assist the State Governments in the development of necessary infrastructure, flow of credit and other facilities for promoting agro exports.

7.14 In addition, schemes were put in place for imports undertaken by exporters so as to neutralise the impact of any duties on those imports. Such schemes are Export Promotion Capital Goods (EPCG), Duty Free Replenishment Certificate (DFRC), Duty Remission Scheme and the Duty Entitlement Passbook (DEPB) Scheme. The issue of multiplicity in these schemes is being addressed.

7.15 Steps have also been taken to simplify the rules and procedures and improve the speed of transactions in the Directorate General of Foreign Trade (DGFT) with the help of information technology aimed at reducing transactions costs. A common commodity classification for imports and exports has been adopted by both, the Directorate General of Commercial Intelligence and Statistics (DGCI&S) and the Central Board of Excise and Customs (CBEC) to eliminate the classification disputes. In the area of customs, the percentage of physical examination of export cargo has already been reduced substantially except for few sensitive destinations while a major push is being given to Electronic Data Interchange (EDI) and 'System based Appraisal'. Export Promotion Councils have been set up to function as a conduit between the exporters and the Government and to provide essential services required by the exporters.

7.16 Trade finance is a crucial element in the design of trade policies. From time to time, the Reserve Bank has undertaken several measures to ensure adequate and timely availability of credit for exports at competitive interest rates. The Reserve Bank's export credit refinance schemes have played a pivotal role in this area. Commercial banks have been providing credit to exporters at pre-shipment and post-shipment stages, both in rupees as well as foreign currency. The rupee export credit has been generally available at rate of interest linked to the Prime Lending Rate (PLR). The export credit in foreign currency is provided at internationally competitive interest rates linked to London Inter-Bank Offer Rate (LIBOR) or similar interest rates. The Reserve Bank has been adjusting interest rates on rupee export credit from time to time taking into account the need to maintain competitiveness by looking at interest rate differentials, as also other factors like inflation and developments in

Box VII.2 Special Economic Zones

The economic rationale for establishing Special Economic Zones (SEZs) is not clearly laid down in trade theory. It is, however, obvious that these Zones can be justified either on considerations of equity where a less developed area is accorded special tax and non-tax benefits or on considerations of efficiency, where a region has a spatial advantage in terms of costs. SEZ, as an institutional measure, supports the economic policy shift from import substitution to export promotion with a view to promoting export-led growth to facilitate larger incomes and employment. For these reasons, a large number of countries have taken initiatives to set up SEZs over the last half century or so. India followed suit in recent years, with a view to improve its competitive position.

The Special Economic Zone (SEZ) Scheme was announced on March 31, 2000 in order to promote export production in a hassle-free atmosphere. A separate chapter on SEZ was added to the EXIM Policy for the five-year period 1997-2002 in April 2001. SEZs are specifically delineated duty-free enclaves, deemed as foreign territory for the purposes of trade operations and application of duties and tariffs. SEZs can be set up for the manufacture of goods and the rendering of services, production, processing, assembling, trading, repair, remaking, reconditioning, re-engineering including making of gold/silver/platinum jewellery and articles thereof or in connection therewith. Units for generation/distribution of power can also be set up in the SEZs. Goods going into the SEZ area from the Domestic Tariff Area (DTA) are treated as deemed exports and goods coming from the SEZ area into DTA are treated as if the goods are being imported.

The incentives offered under the SEZ Scheme include duty-free importation/domestic procurement of goods for the development of SEZ and setting up of units, 100 per cent Foreign Direct Investment (FDI) in manufacturing sector under the automatic

route, 100 per cent income tax exemption for the first five years and 50 per cent tax for two years thereafter. Other incentives include sub-contracting of part of production abroad, reimbursement/exemption of Central Sales Tax on domestic purchases by the SEZ units and retention of 100 per cent foreign exchange earnings in the Exchange Earners Foreign Currency (EEFC) Account.

In the EXIM policy for 2002-07 as announced in March 2002, SEZs were given the following concessions: Overseas Banking Units (OBUs) which would, *inter alia*, be exempt from CRR and SLR requirements would be permitted to be set up in SEZs. These OBUs would give access to SEZ units and SEZ developers to international finance at international rates. SEZ units would be extended income tax exemptions and would be exempt from External Commercial Borrowing (ECB) restrictions and would be allowed to make overseas investment and carry out commodity hedging. SEZs would be exempted from Central Sales Tax in respect of supplies from DTA and transactions from DTA to SEZs would be treated as exports under the Indian Income Tax and Customs Acts.

So far, eight existing export promotion zones have been converted into SEZs and approval has been given for the setting up of 17 SEZs in the States of Gujarat, Maharashtra, Tamil Nadu, West Bengal, Orissa, Uttar Pradesh, Andhra Pradesh, Madhya Pradesh and Karnataka.

Source :

1. Export Import Policy 2002-07, Ministry of Commerce and Industry, Government of India, March 2002.
2. Government of India, Press Releases dated July 19, November 22, 2002 and March 3, 2003.

financial markets. The Reserve Bank has also taken measures to support institutional arrangements for export promotion, such as policy initiatives to provide a liberalised environment for the operations of SEZ units. These measures include: (i) exemption from interest rate surcharge on import finance; (ii) release of foreign exchange to DTA units for buying goods from EOU/EPZ/SEZ units; (iii) permitting 100 per cent retention of foreign exchange in Exchange Earners Foreign Currency (EEFC) accounts; (iv) permitting overseas investment by SEZ units from the EEFC accounts through the automatic route, write-off of unrealised export bills and (v) permitting SEZ units to enter into a contract in overseas commodity exchanges or markets to hedge the price risk in the commodity on export/import provided that the contract is made on a 'stand alone' basis.

India and the World Trade Organisation

7.17 India is one of the founding members of the GATT (1947) and the WTO (1995) and favours the multilateral approach to trade relations. India grants

Most Favoured Nation (MFN) treatment to all its trading partners. As a member of the WTO, India is committed to ensure that the sectors in which developing countries enjoy a comparative advantage are adequately opened up to international trade. India is also committed to ensure that the Special and Differential Treatment Provisions for developing countries under different WTO Agreements are translated into specific enforceable dispensations. Notwithstanding its commitments, India has maintained that the multilateral system would gain even more if it adequately reflected the concerns of the developing countries. At the Fourth Ministerial Conference at Doha in 2001 India forcefully presented her concerns, which are reflected in the Doha Declaration (Box VII.3). On the four "Singapore Issues", viz., trade and investment, trade and competition, transparency in Government procurement and trade facilitation, raised at the first Ministerial held in Singapore in 1996, no decision was reached either at this Ministerial or the subsequent two Ministerials held in Geneva and Seattle. However, Working Groups were established to examine each

Box VII.3

India and the WTO : Current Position Regarding Various Commitments under WTO

India's current status and views regarding various issues as outlined in the latest Trade Policy Review conducted by the WTO are set out below:

Agriculture

The post-Uruguay Round experience has been a mixed one for agricultural trade in India. In the ongoing negotiations on the Agreement on Agriculture, India submitted detailed proposals with a view to safeguarding the food and livelihood security of the large subsistence level farming community and maximising export opportunities for Indian agricultural products by seeking a reduction in the high tariffs and subsidies prevalent in developed countries.

International Standards in Trade and Industry

India is a signatory to the Agreement on Technical Barriers to Trade and the Agreement on Sanitary and Phytosanitary measures and there is a greater emphasis on bringing Indian standards to international levels. Most standards in India are voluntary although health and safety regulations are mandatory for several products. 133 products are under compulsory Bureau of Indian Standards (BIS) certification for domestic goods through various Quality Control Orders issued by various Ministries/Departments.

India is concerned with the developed countries outnumbering the developing countries in the deliberations, resulting at times in international standards development not conducive to their implementation by the developing countries. Given the lack of access to technologies developed abroad for achieving standards acceptable to importing countries, India feels that specific measures need to be taken by developed country Members to give effect to the clauses extending "Special and Differential treatment" to developing countries in the implementation of these WTO Agreements.

Intellectual Property

Consequent to India's obligations under the TRIPS Agreement, appropriate and necessary changes have been identified and enacted in almost all cases in legislations relating to protection of Intellectual Property Rights (IPRs). In addition India has enacted *sui generis* legislations in some TRIPS related areas.

For the protection of Geographical Indications of Goods, a *sui generis* legislation, viz., the Geographical Indications of Goods (Registration & Protection) Act, 1999 has been enacted in order to comply with the requirements under the TRIPS Agreement and to protect products of Indian origin as well.

The Indian Parliament has passed the Protection of Plant Varieties and Farmers' Rights Act with the objective of giving a significant thrust to agricultural growth by providing an effective system for the protection of plant varieties and farmers' rights. This is expected to stimulate investments for research and development both in the public and the private sectors for the development of new plant varieties by ensuring appropriate returns on such investment.

India provides for the protection and enforcement of different fields

of intellectual property through both specific national legislation as well as the Code of Civil Procedure and the Code of Criminal Procedure by way of civil remedies and criminal penalties. These provide effective deterrent to the infringement of IPRs. The criminal cases and civil suits for the infringement of IPRs lie in the judicial system for other cases.

Services

India recognises the importance of the services sector to the economy for higher growth. Hence, the Government's increased emphasis for efficient performance of the services sector particularly, the infrastructure services, such as telecommunications, banking, insurance, shipping, roads, ports, and air transport. India actively participated in the Uruguay Round Services Negotiations and made commitments in 33 sub-sectors as compared to an average of 23 for developing countries and has accepted enhanced commitments as well. The commitments undertaken have been implemented and in some sectors, like telecommunication, have been fulfilled even before the scheduled date.

In line with the agreed Guidelines and Procedures for Negotiations on Trade in services (NGP), India feels that Negotiations should aim to increase the participation of developing countries in the Trade in Services. There should be appropriate flexibility for individual developing country members for progressive liberalisation in line with their development situations and national policy objectives. The positive list approach which is the cornerstone of the General Agreement on Trade in Services (GATS) architecture should be maintained. The Assessment of Trade in Services in overall terms and on a sectoral basis with respect to the objectives of the GATS and Article IV should be carried out by the Council for Trade in Services in Special Sessions. Account should be taken and credit be given in the Negotiations for autonomous liberalisation undertaken by Members since previous Negotiations. The request and offer approach should be the main method of Negotiations.

While GATS recognises "movement of natural persons" as one of the modes of supply of services, the commitments undertaken by the developed countries have very little to offer to the developing countries in terms of opening their markets. The Agreement enjoins the developed countries to take concrete measures aimed at strengthening the domestic service sector of developing countries and providing effective market access in sectors and modes of supply of export interest to developing countries. However, the GATS objectives of increased participation of developing countries in trade in services has hardly been addressed. Therefore, in order to achieve the required balance in GATS and to increase the participation of developing countries in trade in services as per Article IV of GATS, the developed countries should undertake a higher level of commitments in Mode 4, i.e., movement of natural persons and in sectors of export interest to the developing countries.

Source : World Trade Organisation: Report on India's Trade Policy Review, May 2002.

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of these four issues in detail. The Doha Declaration states that the study process on these issues would continue until the fifth Ministerial Conference to be held in Mexico and decision regarding any negotiation would be based on explicit consensus. On issues of crucial relevance to India, the Declaration reaffirms that the International Labour Organisation (ILO) is the appropriate forum to address the core labour standards.

Regional Trade Agreements

7.18 The relationship between regionalism and globalisation is an important issue of contemporary interest. Regional Trade Agreements can be trade-creating or trade-diverting and can lead to welfare improvement or deterioration. Arguments exist in theory on both sides on whether unilateral tariff reductions are superior or inferior to granting regional preferential treatment. Some observers believe that the proliferation of regional arrangements in recent years threatens or even undermines the multilateral system while others hold the view that regional trade agreements provide a necessary spur to global liberalisation in the present era (Bhagwati, 1994; Frankel, 1997; Yeung *et al*, 1999).

7.19 India is a member of a few regional trading agreements within Asia such as the SAARC Preferential Trading Arrangement (SAPTA), the Indian Ocean Rim Association for Regional Cooperation and the BIMST-EC (Bangladesh, India, Myanmar, Sri Lanka, Thailand - Economic Cooperation). Of these, SAARC has been the relatively effective trading arrangement with regard to trading interests. Being a member of SAPTA (SAARC) does not seem to have spurred trade between India and other member countries to the extent that NAFTA benefited Mexico, Mercosur benefited Argentina and ASEAN benefited Malaysia and Thailand. These countries have benefited from the dominant country within the arrangement (*e.g.*, USA in NAFTA) and also from the growing economic growth of the member countries. In the case of regional trading agreements, India has been the dominant member. Moreover, economic performance of the other members in these agreements has also not been conducive to providing significant benefits to India. India's exports to the SAARC increased marginally during the 1990s and were only 4.6 per cent of total exports in 2001-02 as against 19.0 per cent to other Asian developing countries comprising *inter alia* Hong Kong, Singapore, Malaysia and South Korea with whom India does not have any trading agreement (Table 7.3). In fact, OECD continues to be the largest market and source for India's exports and imports, respectively.

Table 7.3: India's Trade with SAARC Countries

(US \$ million)

Regional Groups	1990-91		1995-96		2001-02	
	Exports	Imports	Exports	Imports	Exports	Imports
	1	2	3	4	5	6
I. OECD Countries	10,248.8 (56.5)	13,773.0 (57.2)	17,705.1 (55.7)	19,209.2 (52.4)	21,622.1 (49.3)	20,640.6 (40.1)
II. Developing Countries	3,098.7 (17.1)	4,490.4 (18.7)	9,198.4 (28.9)	8,145.0 (22.2)	13,535.5 (30.9)	12,776.4 (24.9)
<i>of which:</i>						
Asia	2,610.0 (14.4)	3,371.9 (14.0)	7,307.8 (23.0)	6,426.0 (17.5)	10,332.7 (23.6)	9,264.7 (18.0)
a) SAARC	533.4 (3.0)	131.4 (0.5)	1,720.6 (5.4)	256.5 (0.7)	2,026.0 (4.6)	571.5 (1.1)
b) Other Asian Developing Countries	2,076.6 (11.4)	3,240.5 (13.5)	5,587.2 (17.6)	6,169.4 (16.8)	8,306.6 (19.0)	8,693.2 (16.9)
Total Trade	18,145.2	24,072.5	31,794.9	36,675.3	43,826.7	51,413.3

Source : Directorate General of Commercial Intelligence and Statistics.

II. CURRENT ACCOUNT: APPROACH, DEVELOPMENTS AND ISSUES

7.20 Going beyond trade reforms, India moved to full convertibility on current account in August 1994 by liberalising various transactions relating to merchandise trade and invisibles. This has been in consonance with the global trend. Out of 186 IMF member countries, 152 countries had accepted obligations under Article VIII of the IMF, according to which "no member shall, without the approval of the Fund, impose restrictions on the making of payments and transfers for current international transactions".

7.21 With the broad approach of growing trade openness and shift in competitiveness towards services exports, India's current account transactions resulted in a modest current account deficit throughout the 1990s and a surplus in the recent past. A component-wise analysis on merchandise trade and invisibles is presented in this Section with a view to assess the broad approach of policy reforms in this area. As an emerging issue, the issue of current account sustainability has also been analysed.

Trends in Merchandise Trade

7.22 The impact of trade reforms is evident from the changing structure of India's foreign trade in terms of diversity of markets and products and also in the form of higher degree of trade openness (resulting from higher export growth and the associated increase in

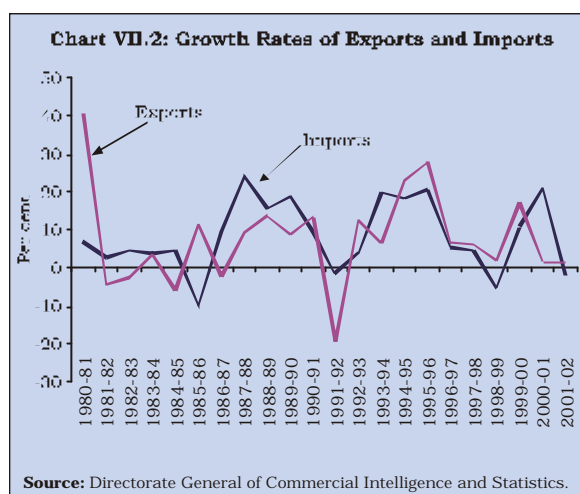
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the capacity to import).¹ Following the various policy initiatives taken by the Government, there was a perceptible improvement in India's export performance in the initial phase of the reform period - both at the overall level and across commodities. The commodity composition of India's export basket has changed in favour of technology intensive and industrial products such as, engineering goods, besides high-value agricultural products. The destination profile of India's exports shows that the developing countries have gained considerable prominence over the years. The commodity composition of imports is affected by various factors such as impact of trade policy, domestic demand and international prices. The sourcing pattern of imports has also changed, mostly in favour of the developing countries.

7.23 Benefits and costs of trade liberalisation are difficult to quantify and attempts to do so yield results that are contingent on the methodology and its pitfalls. However, the benefits of trade liberalisation undertaken during the 1990s are evident in the higher average growth rate of exports during the 1990s at 9.7 per cent as against 8.1 per cent in the 1980s.² The other benefits were lower commodity price inflation (in the latter half of the 1990s) and higher consumer welfare. The latter in turn, emanated from product quality improvement as well as wider choice in range of most products. The notable feature is that there was remarkable export growth during the first half of the reform period, in particular during the years 1993-94 to 1995-96 with a deceleration in the subsequent years (Chart VII.2). This behaviour can be attributed partly to sluggishness in external demand precipitated by financial crises in some parts of the world and the subsequent weakening of overall world demand and world trade volume (RBI, 1999). Weak exports also reflect growing domination of China in labour intensive manufactured exports, high infrastructure costs, unusually rigid labour laws, reservation for small-scale sector and relatively high regulatory problems (Acharya, 2002).

7.24 Due to higher annual average growth of exports in the 1990s (12.9 per cent) in relation to the average GDP growth of about 6.1 per cent, the contribution of exports to growth in GDP increased modestly. Results of micro-level studies that are based on information collected through sample surveys yield different results with some of them giving a much higher contribution

1. A detailed analysis of compositional and directional trends in India's foreign trade has been presented in the Report on Currency and Finance, Reserve Bank of India, 1998-99.
2. The year 1991-92, being an exceptional year on account of the strain witnessed on the balance-of-payments that led to imposition of temporary import restrictions, is excluded when taking an average of the growth rate in the 1990s.



of exports to GDP growth. The results of a study conducted by the Reserve Bank, however, indicate that the contribution of exports to GDP may be much lower when adjusted for imports of raw materials. Such findings need to be assessed in the context of the selection of firms in the sample surveys (Box VII.4).

7.25 The export performance of the East Asian countries has been much better than that of India (Table 7.4). What is remarkable is that these countries maintained continued export growth despite being hit by the Asian crisis. The high average export growth rate in these countries during 1990s was facilitated by the transformation of these countries from producing cheap labour-intensive goods to technology intensive goods, like electronic parts in the case of Malaysia and electrical components in the case of Korea.

Table 7.4: Average Growth Rate of Exports in East Asian Economies vis-à-vis India

(Per cent)

Country	1981-90	1991-00	1991-95	1996-2000
	1	2	3	4
India	8.1	9.7*	14.4#	3.9@
China, P.R.	13.5	15.4	19.4	11.4
Korea	14.5	10.6	14.3	6.9
Malaysia	9.5	13.3	20.3	6.2
Philippines	4.1	17.4	16.9	18.0
Singapore	11.2	10.7	17.8	3.6
Thailand	14.5	12.1	19.7	4.4

* Average for the years 1990-91 to 1999-2000 excluding 1991-92.

Average for the years 1990-91 to 1995-96 excluding 1991-92.

@ Average for the years 1996-97 to 1999-2000.

Note : Data for India is on fiscal year basis.

Sources : 1. Directorate General of Commercial Intelligence and Statistics.

2. International Financial Statistics, February 2003.

Box VII.4

Export Sector's Contribution to Growth – Some Findings from Select Public Limited Companies (1975-76 to 2000-01)

In order to examine the contribution of the export sector to overall growth of the industrial sector, an internal study was undertaken by the Reserve Bank using the data from the RBI studies on 'Finances of Public Limited Companies for the period 1975 to 2001'. The study was based on balance sheets of around 1,720-2,131 companies of which 786 to 1,036 companies had reported exports data. For analytical purposes, the companies were grouped into two broad sets: (i) Set I covered companies having exports but may or may not have imports (used mainly to analyse their export potential and net foreign exchange contribution) and (ii) Set II covered companies having both exports and imports (used mainly for analysing contribution of exports adjusted for imports of raw material (value added) to overall sales growth). The analysis of exports contribution to growth for these companies was done in terms of a number of ratios. For example, for the first Set of companies two ratios: (i) exports to sales ratio, and (ii) net foreign exchange earning of industries having exports to total foreign exchange reserves of the country were calculated; the analysis of the second Set of companies was based on three ratios, viz., (i) exports to sales ratio, (ii) imports to sales ratio, and (iii) exports adjusted for imports of raw material to sales ratio. The standard industrial classification was adopted for grouping the companies. During 1975-76 to 2000-01, the share of exports of the companies covered in the study amounted to 17-20 per cent while their share of imports varied from 10.6 – 25.6 per cent of the total non-oil imports of the country during the period. The limitations of the data set used for the study are non-comparability of companies used for each year, annualisation of income and expenditure for some companies due to change in the accounting year and change in industrial classification of a company from year to year depending on the share of a product in total sales. Furthermore, most of these companies are from the manufacturing sector. The results of the study are thus subject to these limitations of data-base.

Performance of Set I Companies

At the macro level, the performance of companies in Set I in terms of the exports to sales ratio declined from 8.1 per cent in 1975-76 to 6.8 per cent in 1988-89, but at 11.2 per cent witnessed a turnaround in 1994-95 and stood at 15.7 per cent in 2000-01. The net foreign exchange earnings of these companies to total foreign exchange reserves of the country accounted for, on an average basis 10.6 per cent during the 1970s, 2.0 per cent during the 1980s and 1.3 per cent during the 1990s. This declining trend in the net contribution of these companies to country's foreign exchange reserves was mainly on account of increase in their imports.

Industry-wise analysis revealed that within the manufacturing sector the highest contribution was made by the mining and quarrying industry with exports to sales ratio ranging between 10.0 – 79.5 per cent during 1975-76 to 2000-01. The exports to sales ratio of industrial sector, other than manufacturing sector, varied between 16.0 – 31.0 per cent, processing and manufacturing of agriculture and allied activities 11.0 – 27.0 per cent and manufacturing of foodstuffs, tobacco, textiles, etc., 10.7 – 40.9 per cent. Using the revised National Industrial Classification (NIC), 1998 it was observed that the

exports to sales ratio of manufacturing of wearing apparels, dressing and dyeing of fur industry was 58 – 80 per cent during the period 1998-99 to 2000-01, while manufacture of furniture was 78 – 81 per cent and tanning and dressing of leathers, manufacture of luggage, handbags, etc. contributed 56 – 63 per cent.

Performance of Set II Companies

The exports to sales ratio of companies having both exports and imports revealed a more or less similar trend to those of companies having exports (Set I) and varied between 6.6 – 15.6 per cent. The imports to sales ratio, however, increased steadily from 4.6 per cent in 1975-76 to 14.7 per cent in 1996-97, but declined to 12.4 per cent in 2000-01. Consequently, when exports adjusted for imports of raw material are used for calculating exports to sales ratio, the contribution of this group in terms of sales ratio was meagre and ranged between a negative 0.4 per cent to 6.4 per cent during 1975-76 to 2000-01. Thus, contrary to the perception in the industrial circle of export sector's contribution to overall growth of the economy of 25 per cent during the last decade, the exports adjusted for imports of raw material to sales ratio was far less. The country's exports at a macro level, including re-exports not adjusted for value added, contributed around 18.4 per cent to GDP growth in nominal dollar terms during the 1990s. However, when the exports of the industries covered in the study are analysed with due adjustments for imports of raw material (value added), the exports to sales ratio was much less at 3.7 per cent on an annual average basis during the 1990s.

Industry-wise analysis revealed that ratio of exports to sales of manufacturing of mining and quarrying was the highest (10 - 77 per cent during 1975-76 to 2000-01), while the ratio for processing and manufacturing of foodstuffs, tobacco and textiles ranged between 9 - 41 per cent and that of other industrial group fluctuated between 13 - 26 per cent. The ratio in respect of processing and manufacturing of agriculture and allied activities ranged between 7 - 30 per cent and was 6 - 19 per cent for manufacturing of metals, chemicals and products.

Exports Contribution to Sales Growth

Overall export contribution of the industries to their sales growth for Set I companies stood at 5.7 per cent during the 1970s, increased to 8.9 per cent during the 1980s and increased further significantly to 18.7 per cent during the 1990s. During 1975-76 to 2000-01, the export contribution of these industries to their overall sales growth stood at 16.0 per cent. The contribution of exports to sales growth during the last two years was substantially higher at 23.1 per cent for these industries.

The contribution of exports adjusted for imports of raw materials to their sales growth depicted a dismal picture at a negative 0.3 per cent during the 1970s which increased marginally to 1.5 per cent during the 1980s. However, during the 1990s, the exports adjusted for imports of raw materials to sales growth of these industries stood at 8.4 per cent, which was mainly due to higher exports contribution of 12.0 per cent during the last two years.

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7.26 The average import growth in India which was 7.2 per cent (in US dollar terms) during the 1980s increased to 12.9 per cent during the 1990s. Imports during the period 1990-91 to 1995-96 (excluding 1991-92) experienced an average growth rate of 16.7 per cent, reflecting largely the strong industrial growth during the period (Chart VII.2). Subsequently, in the remainder of the 1990s the average growth rate fell drastically to 8.0 per cent and further to 1.7 per cent during both 2000-01 and 2001-02, due to the slowdown in economic activity (RBI, 2002). The slow growth in imports is a cause for concern as it has a direct bearing on the exports of capital-intensive goods. Interestingly, India's import growth during the 1990s was lower than that of China but higher than that of the other East Asian countries (Table 7.5).

Table 7.5: Average Growth Rate of Imports in East Asian Economies vis-à-vis India

Country	(Per cent)			
	1981-1990	1991-2000	1991-1995	1996-2000
	1	2	3	4
India	7.2	12.9 *	16.7 #	8.0 @
China, P.R.	11.9	16.1	20.1	12.0
Korea	12.7	10.8	14.7	6.9
Malaysia	11.7	12.3	21.9	2.6
Philippines	6.1	10.9	17.3	4.5
Singapore	10.5	9.0	15.6	2.5
Thailand	15.6	8.1	16.7	-0.5

* Average for the years 1990-91 to 1999-2000 excluding 1991-92.

Average for the years 1990-91 to 1995-96 excluding 1991-92.

@ Average for the years 1996-97 to 1999-2000.

Note : Data for India is on fiscal year basis.

Sources : 1. Directorate General of Commercial Intelligence and Statistics.
2. International Financial Statistics, February 2003.

7.27 The ratio of exports to GDP increased from an average of 4.6 per cent during the 1980s to 8.0 per cent during the 1990s (excluding the year 1991-92) which represents an increase in export orientation of the economy by 3.4 percentage points of GDP over one decade. Similarly, imports as a proportion of GDP increased from 7.2 per cent during the 1980s to 9.5 per cent during the 1990s. India's total merchandise trade, an indicator of the degree of openness of an economy, increased from about 11.8 per cent of GDP in the 1980s to 17.4 per cent during the 1990s (Table 7.6 and Chart VII.3).

7.28 The average export-import ratio, an indicator of the import financing capacity of exports, improved sharply from 64.0 per cent to 84.1 per cent, between the 1980s and 1990s and further increased to 85.2 per cent in 2001-02 (Table 7.6 and Chart VII.4). During the 1980s, the export-import ratio was as high as 115.5 per cent for Malaysia and 93.4 per cent for China. During the 1990s, the ratio for these countries – at 112.0 per cent for China

Table 7.6: India's Foreign Trade Ratios

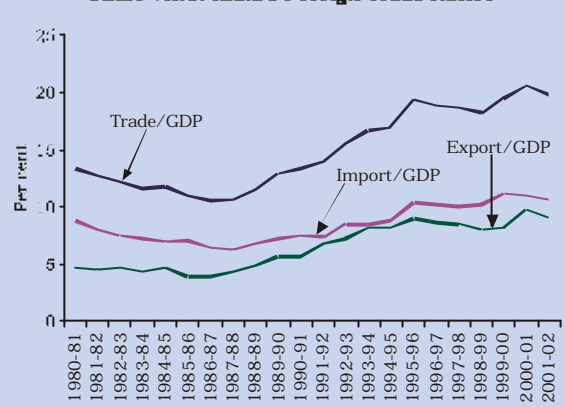
Period Average	(Per cent)			
	X/GDP	M/GDP	T/GDP	X/M
	1	2	3	4
1980-81 to 1989-90	4.6	7.2	11.8	64.0
1990-91 to 1999-00*	8.0	9.5	17.4	84.1
1990-91 to 1994-95 *	7.3	8.4	15.7	86.9
1995-96 to 1999-00	8.5	10.4	18.9	81.8
2000-01 to 2001-02	9.4	10.8	20.2	86.7

* Excluding 1991-92.

Note : X=Exports, M=Imports, T=Exports+Imports, GDP=Gross Domestic Product at current market prices in rupees.

Sources : 1. Directorate General of Commercial Intelligence & Statistics.
2. Economic Survey, Government of India.

Chart VII.3: India's Foreign Trade Ratios



Source: Directorate General of Commercial Intelligence and Statistics.

and 106.8 per cent for Malaysia – was still higher than that for India. The exports of these countries thus, more than compensated for higher imports.

7.29 India's net terms of trade, which measure the relative change in export and import prices have been generally fluctuating during the 1990s. Import purchasing power of exports as measured by the income terms of trade have consistently improved during the 1990s on account of strong export, growth in volume terms.³The income terms of trade, increased on an average from 141.5 in the 1980s to 439.4 in the 1990s and further to 743.2 in 2001-02 (Chart VII.5).

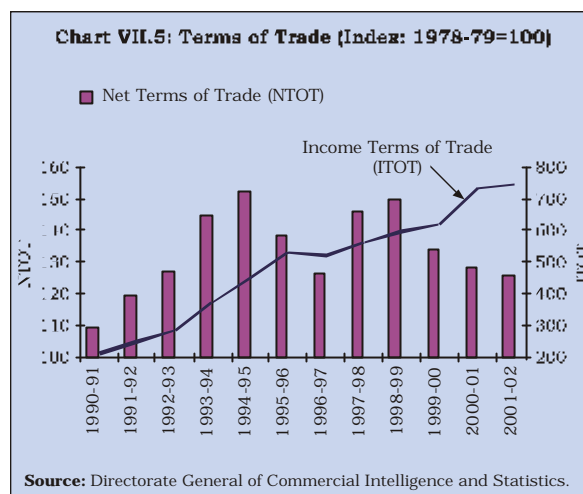
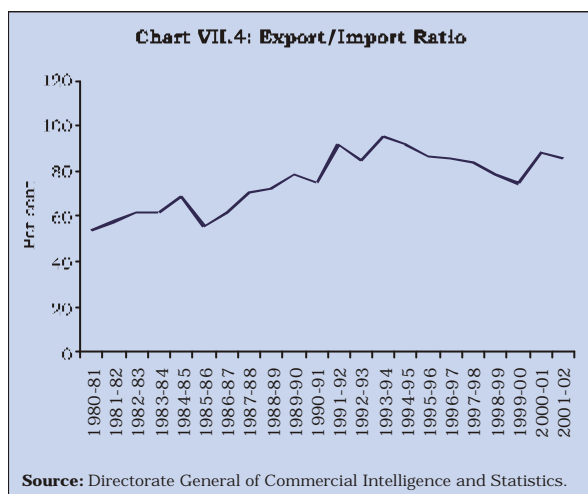
7.30 Diversification of exports constitutes an important element of India's export promotion strategy. Reflecting the policy thrust as also the evolving pattern of industrial development, India has gradually transformed from a predominantly primary products

3. Income terms of trade

$$= (\text{Net terms of Trade} * \text{Volume Index of Exports}) / 100$$

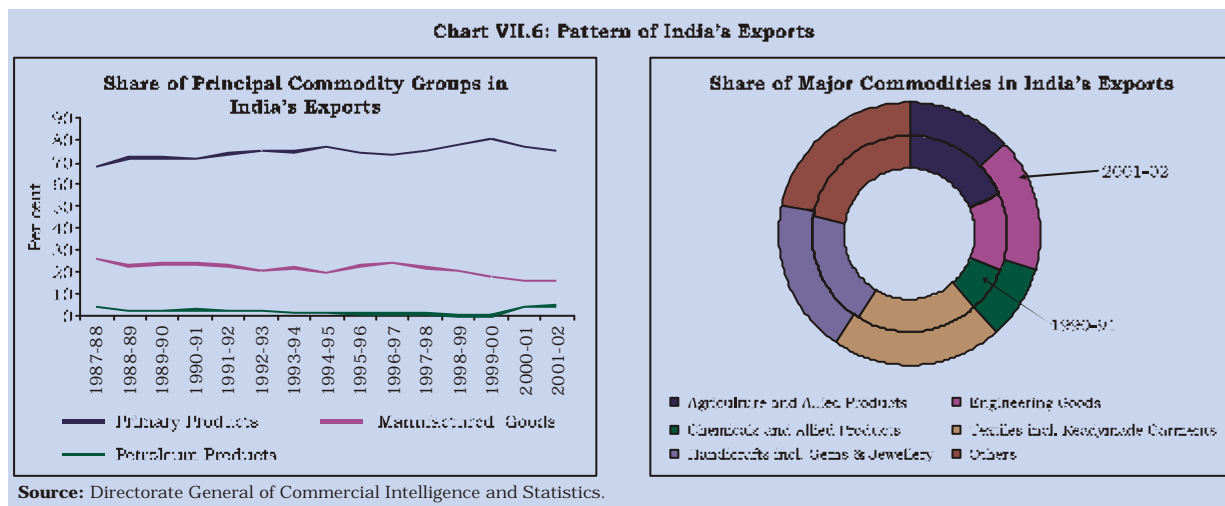
$$= (\text{Unit Value Index of Exports} * \text{Volume Index of Exports}) / \text{Unit Value Index of Imports}$$

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exporting country into an exporter of manufactured goods. However, it may be noted that this was more prominent in the 1970s. The progress has, however, stalled thereafter. Aided by various export promotion measures, the share of 'manufactured goods' in India's total exports increased from 70.7 per cent during 1987-90 to 75.3 per cent during 1992-97 and further to 77.4 per cent during 1997-2002.⁴ Exports of petroleum products have also increased in the recent years (Chart VII.6). The commodity composition within the major groups has also undergone a considerable transformation. Within the 'primary products' group, the

share of 'ores and minerals' in total exports has declined while the share of 'agricultural and allied products' remained almost unchanged at around 18 per cent between 1990-91 and 1998-99 but declined thereafter to 13.4 per cent in 2000-01. The falling share of 'ores and minerals' has been offset by the increase in share of 'engineering goods' within the manufactured products group - an indication of upward movement of India's exports in the value-addition chain. Similarly, exports of processed agricultural products also showed marked improvement in the post-reform years whereas the shares of traditional export items such as tea, coffee,



4. Taking into account the change in the system of commodity-classification adopted by the Directorate General of Commercial Intelligence and Statistics (DGCI&S) in 1987-88, the disaggregated data on exports and imports before and after that year are not strictly comparable. Therefore, the analysis focuses on the period 1987-88 onwards.

cereals, handicrafts and carpets declined. Among other major manufactured products, the share of 'chemicals and allied products' has improved while that of 'leather and manufactures' has declined between the years 1990-91 and 2001-02 (Table 7.7 and Chart VII.6).

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Table 7.7: Average Share of Exports of Selected Commodities

Category	(Per cent)			
	1987-90	1990-91	1992-97	1997-02
	1	2	3	4
Primary Products	24.2	23.8	21.9	18.5
Manufactured Goods	70.7	71.6	75.3	77.4
<i>of which:</i>				
Leather and Manufactures	7.5	8.0	5.8	4.6
Chemicals and Allied Products	5.9	7.2	7.2	9.1
Engineering Goods	11.0	12.4	13.8	14.7
Readymade Garments	11.2	12.3	12.0	12.2
Textile Yarn, Fabrics, Made-ups	8.0	8.5	10.9	11.2
Handicrafts including Gems and Jewellery	22.6	18.9	19.7	20.1
Petroleum Products	3.1	2.9	1.8	2.1

Source : Directorate General of Commercial Intelligence and Statistics.

7.31 The areas in which South-East Asian countries have achieved their highest export growth during the 1980s have been typically labour intensive, relatively low technology products such as textiles, clothing, shoes, toys, sport goods and the like. Subsequently, during the 1990s they have graduated up to somewhat higher technology consumer goods and then even higher technology and capital-intensive sectors such as capital goods and petro-chemicals. Over the same period, the Indian export pattern has remained stationary with persistent dominance of labour-intensive low technology products such as clothing, textiles, shoes and other leather goods. Adequate quality upgradation has been absent and unit prices have stagnated. The attainment of both higher volume growth and of higher unit value realisation will require both larger scale of operation and higher quality. It is, therefore, essential to loosen constraints in these sectors so that they can grow freely in volume, utilise better machinery, graduate up to higher technology levels, and utilise better international marketing channels. What is observed in other countries in Asia is that production of such consumer goods may be achieved through final assembly operations that are large in scale, but where a great deal of out-sourcing to small enterprises is undertaken to preserve their competitiveness. Consequently, freeing of restrictions on the size of small-scale industries through de-reservation is likely to lead to the growth of many more small-scale enterprises than is currently the case, along with a much higher potential for growth in manufacturing employment (Mohan, 2002).

7.32 Destination-wise analysis of the Indian exports indicates an unchanged position in respect of the

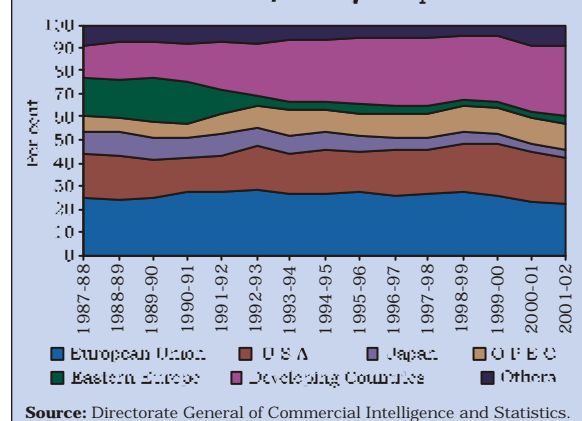
Organisation for Economic Cooperation and Development (OECD) group being the largest market, increasing prominence of the Organisation of Petroleum Exporting Countries (OPEC) and the developing countries (Asia, Africa and Latin America), and a steep erosion in the relative position of the Eastern Europe. With the break-up of the Soviet Union, the share of the East European countries fell dramatically from 17.9 per cent in 1990-91 to just 2.9 per cent in 2001-02, primarily on account of the termination of Rupee trade and its adverse impact on exports of agricultural products such as tea, tobacco and spices to this region. The loss of this market share was, however, made up by increasing the shares in developing countries and the OPEC region, both of which doubled between the years 1987-88 and 2001-02 (Table 7.8 and Chart VII.7).

Table 7.8: Direction of India's Foreign Trade - Share in Total Exports

Group / Country	(Per cent)					
	1987-1988	1990-1991	1995-1996	1999-2000	2000-2001	2001-2002
	1	2	3	4	5	6
I. OECD Countries	58.9	56.5	55.7	57.3	52.7	49.3
<i>of which:</i>						
a. E U	25.1	27.5	27.4	25.5	23.4	22.5
b. North America	19.7	15.6	18.3	24.4	22.4	20.8
<i>of which:</i>						
U S A	18.6	14.7	17.4	22.8	20.9	19.4
c. Asia and Oceania	11.6	10.4	8.3	5.8	5.1	4.5
d. Other OECD Countries	2.5	3.0	1.6	1.6	1.9	1.6
II. OPEC	6.1	5.6	9.7	10.6	10.9	11.9
III. Eastern Europe	16.5	17.9	4.2	3.5	3.0	2.9
IV. Developing Countries	14.2	17.1	28.9	28.4	29.2	30.9
<i>of which:</i>						
a. Asia	11.9	14.4	23.0	22.3	22.5	23.6
b. Africa	2.0	2.2	4.8	4.2	4.4	5.2
c. Latin American Countries	0.3	0.5	1.2	1.9	2.3	2.1

Source : Directorate General of Commercial Intelligence and Statistics.

Chart VII.7 : Share of India's Exports to Different Countries / Country Groups



Source : Directorate General of Commercial Intelligence and Statistics.

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7.33 India's export share in world trade has increased perceptibly during the recent period. India's exports as a percentage of world exports improved to 0.56 per cent during 1991-96 and further to 0.65 per cent during 1996-2002 from 0.48 per cent in the 1980s. The ratio was 0.71 per cent in 2000-01, the highest achieved so far since the 1970s. Nonetheless, India's share in world exports is still very low and appears unimpressive when compared with the other major trading Asian countries, such as, China and other East Asian economies like Malaysia, Thailand, Singapore, Korea and Indonesia (Table 7.9 and Chart VII.8). China demonstrated the most dramatic change as its share in world exports more than doubled in a decade from 2.0 per cent in 1991 to 4.4 per cent in 2001. Group-wise, India's share in the imports of industrialised countries in the 1990s declined as compared to that in 1986. In respect of the developing countries as a group, however, it has increased from 0.5 per cent in 1986 to 1.1 per cent during 1996-2000 (Table 7.10).

Table 7.9: Share of Select East Asian Countries in World Exports

Country	Annual					Average	
	1991	1995	1999	2000	2001	1991-1995	1996-2000
	1	2	3	4	5	6	7
India	0.5	0.6	0.6	0.7	0.7	0.6	0.6
China	2.0	2.9	3.5	4.0	4.4	2.5	3.4
Indonesia	0.8	0.9	0.9	1.0	0.9	0.9	0.9
Korea	2.0	2.4	2.6	2.7	2.5	3.0	2.5
Malaysia	1.0	1.4	1.5	1.6	1.4	1.2	1.5
Singapore	1.7	2.3	2.0	2.8	2.0	2.0	2.3
Thailand	0.8	1.1	1.0	1.0	2.0	1.0	1.0

Source : International Financial Statistics, February 2003.

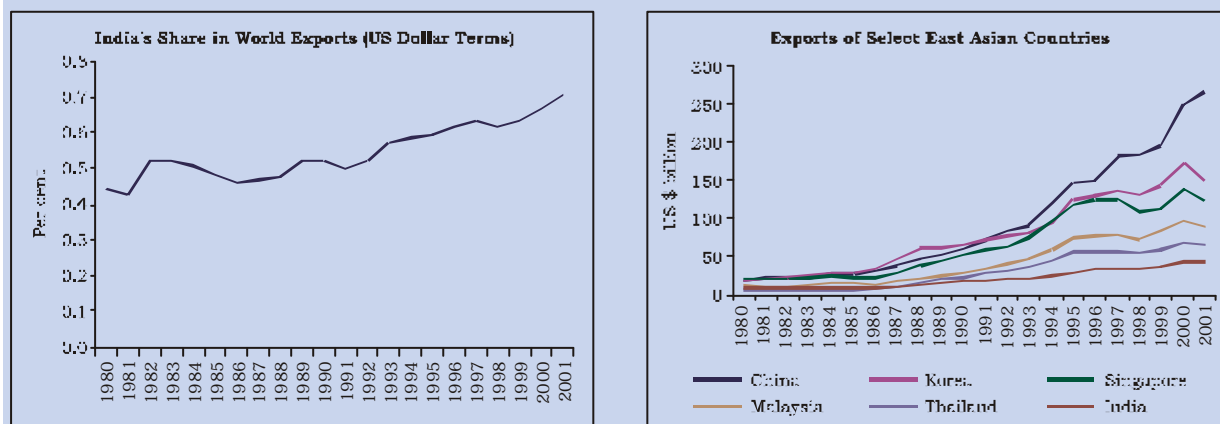
Table 7.10: India's Share in World Imports and in Imports of Major Trading Partners

Group/Country	Annual			Average	
	1981	1986	1990	1991-1995	1996-2000
	1	2	3	4	5
World	0.5	0.7	0.6	0.6	0.7
Industrial Countries	0.4	0.6	0.5	0.5	0.5
<i>of which:</i>					
United States	0.5	0.6	0.7	0.8	0.9
Japan	0.7	1.0	0.9	0.9	0.8
Belgium	0.3	0.4	0.6	0.6	0.8
Italy	0.2	0.2	0.4	0.5	0.6
Germany	0.3	0.3	0.5	0.5	0.5
United Kingdom	0.6	0.5	0.6	0.8	0.8
Developing Countries	1.1	0.5	0.9	0.8	1.1
<i>of which:</i>					
Malaysia	0.7	0.8	0.7	0.8	0.9
Singapore	0.5	0.6	0.6	0.7	0.7
Thailand	4.0	0.6	1.6	1.3	1.0
Bangladesh	0.3	2.2	4.6	9.6	12.9

Source : Direction of Trade Statistics, IMF various issues.

7.34 The commodity-structure of India's imports has also shown marked changes, reflecting, *inter alia*, the impact of trade policy, the movements in international prices and the pattern of domestic demand. The share of oil imports in India's total imports increased from 17.1 per cent during 1987-90 to 23.9 per cent during 1992-97 and further to 27.2 per cent in 2001-02 (Chart VII.9). While the share and absolute value of these imports showed sharp fluctuations over the years mainly on account of the large movements in international crude prices, the volume of such imports has grown significantly on account of increase in domestic consumption and the stagnation in domestic crude oil production. Given the large swings in international crude prices, as

Chart VII.8: India's Exports vs. Exports of Select East Asian Countries



Source : International Financial Statistics, February 2003.

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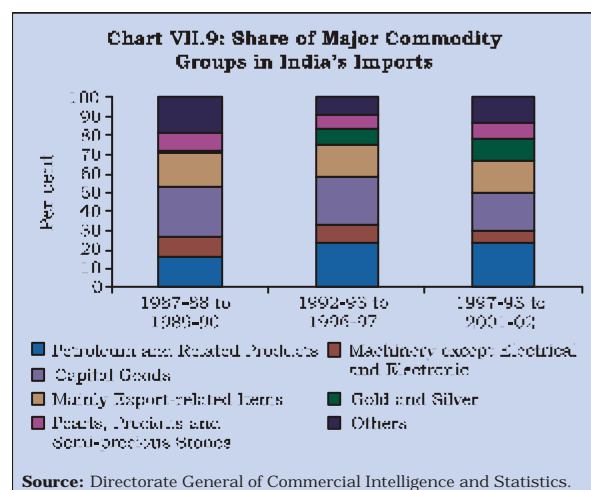
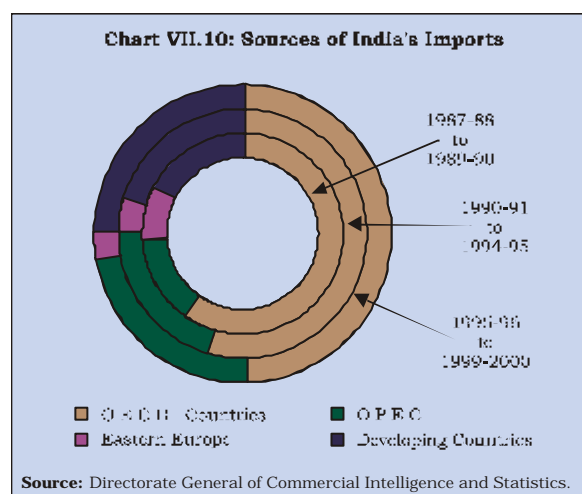
also a trend rise in the oil import bill, there is a need for a comprehensive review of energy policy of the country covering the demand-supply aspects, as well as the price policy. Renewed efforts to improve energy supply from domestic sources by encouraging explorations, and stepping up of production and refining capacities are necessary to bring about a structural change in this area.

7.35 Reflecting the impact of a series of policy measures undertaken in the post-reform years starting with the repeal of the Gold Control Order in 1991 for liberalising the imports of gold and silver, these imports showed a sharp pick-up from 1992-93. The imports of gold and silver (including passenger baggage) rose from a meagre US \$ 6 million in 1991-92 to US \$ 1.3 billion in 1992-93 and further to US \$ 5.9 billion in 1997-98. A large part of the increase in these imports could be due to a switchover from the unofficial channel to the official channel, initially through the Non-Resident Indian (NRI) baggage route and subsequently through the OGL route.⁵ In the subsequent years, however, these imports have stabilised and, in fact, declined to US \$ 4.6 billion in 2001-02.

7.36 Imports of capital goods registered sharp increases in the initial reform years from US \$ 4.5 billion in 1992-93 to US \$ 10.3 billion in 1995-96, but exhibited a declining trend thereafter. The share of these imports, which had declined from 29.5 per cent in 1987-88 to 24.2 per cent in 1990-91, rose in the post-reform period to 28.2 per cent in 1995-96 but dropped to 18.1 per cent in 2001-02, reflecting the lack of investment demand associated with the

sluggish pace of domestic industrial activity (Chart VII.9). Among other import items, the relative shares of fertilisers, non-ferrous metals, 'metalliferous ores and metal scrap' and 'iron and steel' generally showed a declining trend.

7.37 There are noticeable changes in the sources of India's imports and in country shares.⁶ The share of the OECD countries and the Eastern Europe in India's imports declined between the years 1987-88 and 1999-2000 while that of the developing countries and the OPEC group increased during the same period. The share of India's imports from the OPEC region rose significantly to 25.9 per cent in 1999-2000 from 16.3 per cent in 1990-91, mainly on account of the increase in the oil imports (Chart VII.10).



5. See Box VI.1 on Non-Monetary Gold in Annual Report of the Reserve Bank of India, 1998-99 for details.

7.38 The Ministry of Commerce and Industry, Government of India has set an export target of 1 per cent share of world exports by 2006-07 for the medium-term which would be co-terminus with the Tenth Five Year Plan. This target is based on historical trends, current prospects and the requirement of a compound annual growth rate of about 12 per cent for exports till the year 2006-07 (Government of India, 2002a). The export performance is known to depend on price competitiveness, as well as non-price factors. As regards the price competitiveness, a number of earlier studies have emphasised that real exchange rate may be an important variable influencing the price competitiveness of India's exports. In India, large

6. It may be mentioned that country-wise data on imports for 2000-01 and 2001-02 are not strictly comparable with those for the previous years, as country-wise break-up of imports of petroleum and petroleum products comprising around 30 per cent of total imports are not available separately.

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exchange rate misalignment has not occurred in the last one decade as the market itself has corrected the misalignment gradually over different episodes. The strong performance of the software exports, however, has created concerns about a possible "Dutch disease" effect which may erode the competitiveness of traditional exports.⁷ The export performance across commodity groups shows that most of the export groups have performed well so far, and apparently have not been affected by any "Dutch disease" effect. In a market determined exchange rate regime, exchange rate cannot be used as an instrument of export promotion, even though, at times, nominal appreciation could be prevented consistent with the overall exchange rate policy of the country. If the exporters retain the depreciation induced profits, they cannot improve their price competitiveness and therefore, exports may not increase despite a depreciation. In the Indian context, studies show that there has been an upward movement in exchange rate pass-through for India's exports.⁸ While Patra and Pattanaik (1994) estimate the co-efficient (during 1970-71 to 1992-93) at 43 per cent, Dholakia and Saradhi (2000) placed this figure at 30 per cent prior to 1991 and at 70 per cent after 1991.

7.39 Some of the recent studies have analysed the role of non-price factors *vis-à-vis* the price factors. Studies analysing the factors contributing to the competitiveness of India's exports have observed that non-price factors play a more important role (Marjit and Raychaudhuri, 1997). Another study observed an inverse relationship between depreciation of exchange rate of rupee and trade competitiveness, and also emphasised the role of other factors like quality, product design, reliability and after sales service in raising trade competitiveness (Bhatt, 2000).

7. The paradoxical role of natural resources is the crux of the Dutch disease. It refers to the adverse effects on the manufacturing sector of natural discoveries. In a more general form, the Dutch disease explains the coexistence with the traded goods sector of progressing and declining sectors. In other words, this refers to the decline in traditional industries brought about by the rapid growth and prosperity of a new industry. There is a concern expressed in some quarters that due to large inflow of remittances and major and sustained spurt in software exports, India's exchange rate could appreciate considerably and, thereby, erode the competitiveness of most other traditional exports. This could give rise to the 'Dutch disease' problem in India. This issue has been analysed in paragraph 7.125.

8. The efficacy of exchange rate depreciation on export performance depends to a large extent on the magnitude of the pass through co-efficient, which indicates the percentage of profit resulting from a depreciation that is passed on by the domestic exporters to the foreign importers.

7.40 India's export performance is affected by domestic as well as external impediments. The domestic factors inhibiting India's export growth, as mentioned earlier, *inter alia* are infrastructure constraints, high transactions cost, small-scale industry reservations, inflexibilities in labour laws, lack of quality consciousness and constraints in attracting FDI in the export sector. High levels of protection in relation to other countries also explain why FDI in India has been much more oriented to the protected domestic market, rather than as a base for exports (Ahluwalia, 2002). The exports of developing countries like India are facing increasing difficulties by emerging protectionist sentiments in some sectors in the form of technical standards, environmental and social concerns besides non-trade barriers like anti-dumping duties, countervailing duties, safeguard measures and sanitary and phyto-sanitary measures. Indian products which have been affected by such barriers include floriculture products, textiles, pharmaceuticals, marine products and basmati rice exports to the European Union and mushroom and steel exports to USA and also grapes, egg products, gherkins, honey, meat products, milk products, tea, and spices. Differential tariffs against developing countries have also adversely affected market access into these countries (Government of India, 2002b; WTO, 2002). According to the WTO, exports from India are currently subject to 40 anti-dumping and 13 countervailing measures mainly for agricultural products, textiles and clothing products and chemicals and related products. This brings into focus the importance of non-price factors like quality, packaging and the like mentioned earlier, where India still seems to be lacking as compared to the international standards. This has adversely affected India's export performance *vis-à-vis* other developing countries which may have an improved standing in these non-price factors.

7.41 To sum up, India's external trade reforms have been quite comprehensive. The protection given to domestic industries has been reduced by way of the reduction in tariff levels. However, the pace of tariff reduction needs to be accelerated (subject to revenue constraints). The tariff levels in India are still among the highest in the world. The evidence from 1991-97 and 2001-2003 suggests that faster tariff reduction is good for industry. India has completely dismantled its quantitative restrictions except for a few items. Various export promotion schemes have been put in place. In the area of multilateral commitments the progress has been satisfactory. The concerns of developing countries as voiced by India in the WTO are being considered. India is making progress on the negotiations on Services and on several issues which

are in the process of study. Reforms in the trade sector have also been notable as clearly seen from the increase in India's trade-GDP ratio. There has been a steady increase in the growth rate of exports and imports as compared with the 1980s. The export-GDP ratio has almost doubled from that in the 1980s. The rising export-import ratio is indicative of the improvement in financing capacity of exports. India's share in world exports has been rising and in 2001, this ratio was the highest achieved so far since the 1970s. There has been a discernible shift in India's composition of exports with overall diversification of exports. The share of manufactured goods has shown an improvement driven by the increasing share of chemical and allied products, engineering goods, textiles and handicrafts including gems and jewellery. Imports have been driven by an increase in the imports of mainly export-related items like pearls, precious and semi-precious stones and electronic goods. India has also been successful in diversifying its export market increasingly to the developing countries alongwith the OECD emerging as the largest market for India's exports. A notable feature is that despite the loss of the East European market after the break-up of the Soviet Union, India made a safe transition to other markets like developing countries of Asia and to the OPEC.

Trends in Invisibles

7.42 One of the most significant developments in the current account of balance of payments in the 1990s was the remarkable growth in services transactions with the rest of the world, which was made possible by the revolution in information and communication technology. The information and communication related services (services relating to computer software, hardware, internet, e-commerce and telecommunication sector) experienced unprecedented growth during the last decade, outstripping the growth in merchandise trade. Reflecting the growing importance of trade in services, the General Agreement on Trade in Services (GATS) was adopted in 1993 to extend multilateral rules and discipline to services trade, with particular emphasis on non-discrimination and prohibition of quantitative restrictions. The Reserve Bank has undertaken several measures to relax payments restrictions on transactions pertaining to trade in services and other invisible transactions.

7.43 With the shift in the competitiveness towards services, in particular the technology related services, India has emerged as one of the fastest growing exporters of services in the world outstripping the

growth rate of industrial countries as well as all countries taken together (Chart VII.11) (RBI, 2002a). Reflecting this, gross invisible receipts (comprising services, transfers and income) increased from US \$ 7.5 billion (29 per cent of total current receipts) in 1990-91 to US \$ 35.6 billion (44 per cent of total current receipts) in 2001-02. Among the various items of invisible receipts, services increased from US \$ 4.6 billion (18 per cent of total current receipts) in 1990-91 to US \$ 20.3 billion (25 per cent of total current receipts) in 2001-02. Within services, miscellaneous services receipts, which encompasses communication services, construction services, financial services, software services, news-agency services, royalties, copyright and license fees, management services and others, increased from US \$ 2.0 billion in 1990-91 to US \$ 14.7 billion in 2001-02, representing 41.2 per cent of invisible receipts in 2001-02. Software services have shown spectacular growth while also emerging as the most important source of miscellaneous services earnings. Software exports increased from US \$ 0.3 billion in 1993-94 to US \$ 1.8 billion in 1997-98 and further to US \$ 7.2 billion in 2001-02, with its share rising from 2.9 per cent to 20.1 per cent of total invisibles receipts during this period. Reflecting the strong growth emanating from software exports, the traditional sources of services exports, viz., travel and transportation have declined in relative importance. Following the heavy inflow of invisibles receipts, India's current account deficit narrowed down considerably during the decade of the 1990s. The receipts and payments on account of various categories of current account transactions as a percentage of GDP are presented in Table 7.11.

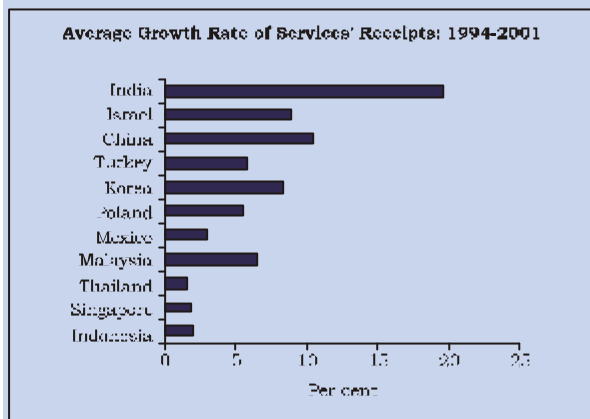
Sustainability of Current Account

7.44 One of the factors underlying the external payments crisis of 1991 was the high levels of current account deficit (CAD) maintained during the 1980s which at the time of the crisis had reached 3.1 per cent of GDP, well above the sustainable level for India (Cerra and Saxena, 2002). Concerted efforts directed at imparting strength and stability to the external sector emphasised a policy of maintaining the CAD within a sustainable level of about 2 per cent.⁹ This is broadly in line with the recommendations of the High Level Committee on Balance of Payments (RBI, 1993), which recommended that CAD-GDP ratio could be sustainable at 1.6 per cent. The current account deficit averaged only about 1.0 per cent of GDP during the

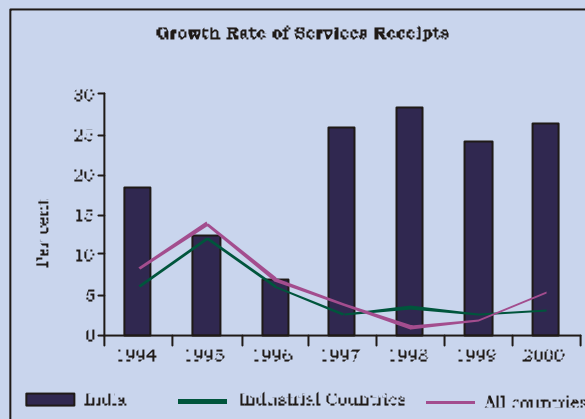
9. As mentioned in the subsequent Annual Reports since 1996-97.

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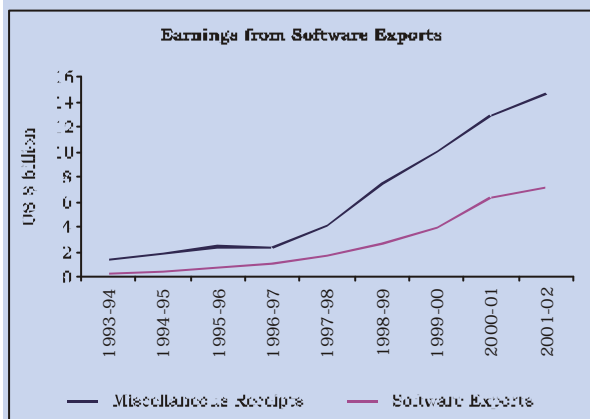
Chart VII.11: Trends in Current Account



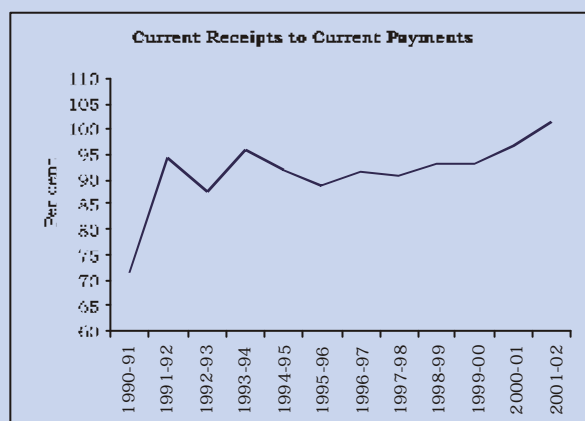
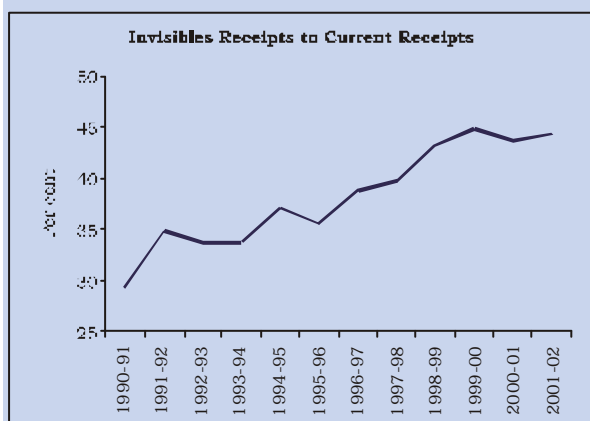
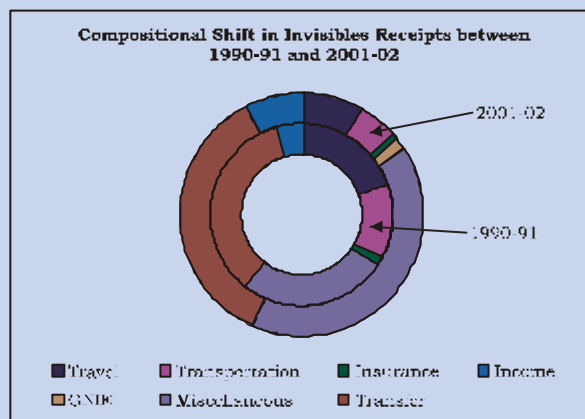
Source: International Financial Statistics, February 2003.



Source: International Financial Statistics, February 2003.



Source: Balance of Payments Statistics Year Book, 2001



last decade (1992-2002), as compared with 1.8 per cent in the 1980s, and recorded a surplus in 2001-02 after a period of 23 years. Among the components of current account, while the trade deficit (BoP basis)

declined marginally from 3.2 per cent of GDP during the 1980s to 3.0 per cent during 1992-2002, the invisibles surplus increased significantly from 1.4 per cent of GDP to 2.1 per cent over the same period

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Table 7.11: Invisibles by Category of Transactions

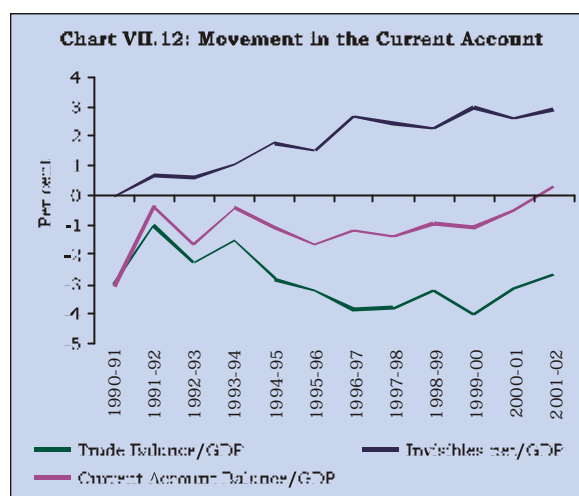
Items	(Per cent of GDP)				
	1990-91	1995-96	1999-00	2000-01	2001-02
	1	2	3	4	5
Invisibles Receipts	2.4	5.0	6.8	7.5	7.4
Invisibles Payments	2.4	3.5	3.8	4.9	4.5
of which					
I. Non-Factor Services Receipts	1.4	2.1	3.5	4.1	4.2
Non-Factor Services Payments	1.1	2.1	2.6	3.6	3.3
of which:					
i) Travel Receipts	0.5	0.8	0.7	0.7	0.6
Travel Payments	0.1	0.3	0.5	0.6	0.5
ii) Transportation Receipts	0.3	0.6	0.4	0.4	0.4
Transportation Payments	0.3	0.6	0.5	0.7	0.5
iii) Insurance Receipts	—	0.1	0.1	0.1	0.1
Insurance Payments	—	—	—	—	0.1
iv) G.n.i.e. Receipts	—	—	0.1	0.1	0.1
G.n.i.e. Payments	0.1	0.1	0.1	0.1	0.1
v) Miscellaneous Receipts	0.6	0.7	2.3	2.8	3.0
Miscellaneous Payments	0.6	1.1	1.5	2.2	2.3
II. Income Receipts	0.1	0.4	0.4	0.5	0.6
Income Payments	1.3	1.3	1.2	1.3	1.1
III. Private Transfers Receipts	0.7	2.4	2.8	2.8	2.5
Private Transfers Payments	—	—	—	—	—
IV. Official Transfers Receipts	0.1	0.1	0.1	0.1	0.1
Official Transfers Payments	—	—	—	—	—

Note: G.n.i.e. – Government not included elsewhere.

Miscellaneous : 1. Communication Services, 2. Construction Services, 3. Financial Services, 4. Software Services, 5. News Agency Services, 6. Royalties, Copyright and Licence Fees, 7. Management Services, 8. Other Services (Advertising, Rentals, Office Maintenance, Prizes, Exhibition and other services not enumerated elsewhere).

The definitions of the items are given in February 2003 issue of the RBI Bulletin.

— Negligible.



1991 and the East Asian crisis in 1997 have highlighted, *inter alia*, the role of large current account deficits and the consequent build-up of external debt, in precipitating the crisis (Rangarajan, 1993; RBI, 1999 and 2002a).

7.46 The current account sustainability depends upon external as well as domestic macroeconomic factors (Ghosh and Ostry, 1994; Milesi-Ferretti, Gian and Razin, 1997). Accordingly, a sustainable level of CAD would have elements of time and country specificity. Ultimately it is determined by the foreign investors' confidence in the domestic economy, depending upon the various external and domestic factors identified above. While a ratio of CAD-GDP of 8 per cent or so turned out to be unsustainable in the case of Thailand, the same ratio continues to remain sustainable in the case of New Zealand. This level of deficit need not be a cause for alarm as long as transparent and consistent policies remain (Brash, 1998).

7.47 In the Indian context, as mentioned before, it was recommended that the CAD be contained at 1.6 per cent of GDP, given the level of normal capital flows. The Report of the Committee on Capital Account Convertibility, 1997 (Chairman: S.S. Tarapore) felt that a sustainable CAD-GDP ratio cannot be static for all times. It, therefore, recommended that the CAD-GDP ratio could be varied in line with the servicing capacity of the economy proxied by trends in current receipts/GDP ratio. The actual outcome of CAD-GDP ratio averaging just over 1 per cent in the 1990s so far could be reflective of the limited absorptive capacity and infrastructural and other bottlenecks in the economy that hamper higher levels of investment (RBI, 1999).

7.48 In recent years, the current account deficits have been progressively narrowing and now turning into a modest surplus in 2001-02 and first two quarters

(Chart VII.12). With the narrowing of the current account deficit in the recent years, there is a need for revisiting the issue of sustainability of current account in the Indian context.

7.45 It has been noted that developing countries typically run CAD in their early stages of development to supplement their domestic saving to achieve higher level of investment and growth. This process enables recipient countries to achieve higher growth without cutting their current consumption; at the same time, higher productivity of capital in developing countries benefits foreign lenders by earning higher returns on their capital. This raises the question of an optimal CAD level for a country which, however, needs to be circumscribed by a sustainable level of capital flows. The external payments problems faced by India in

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of 2002-03, which reflects the underlying conditions of weakening aggregate demand. The target growth path in the Tenth Five Year Plan would presage a greater recourse to higher imports and enlarged capital flows. At the same time, there remains considerable degree of concern regarding the sustainable level of the current account deficit for an economy of India's size and diversity. Clearly, exports hold the key to achieving a sustainable balance between the requirements of higher growth and the imperative of ensuring viability in the external sector. The projections of import growth underlying the growth rate of 8 per cent for the Tenth Plan have to be modulated and conditioned by the achievement of export targets along the course charted by the Medium-Term Export Strategy, 2002-07 (RBI, 2002b).

7.49 Against this background, financing of an average current account deficit of about 2.8 per cent of GDP as projected in the Tenth Five Year Plan may require a two-fold increase in the size of annual capital flows from the current levels. From a policy perspective, international investor confidence is critical to mobilise capital flows of this order. For this purpose, accumulation of reserves at a high level is an important pre-requisite.

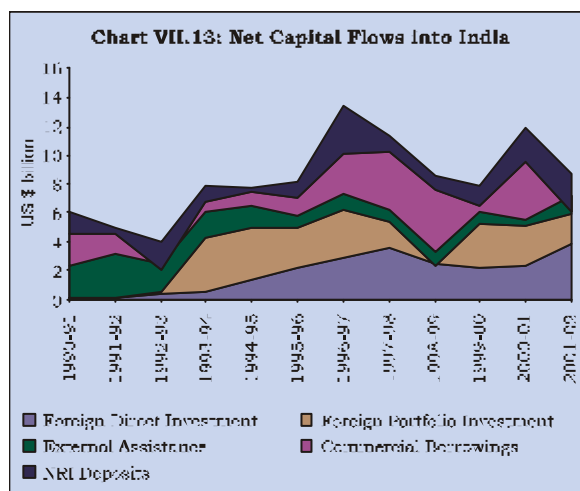
7.50 In sum, during the decade of 1990s, the reform measures coupled with sound macroeconomic management succeeded in reducing the current account deficit well within the sustainable level for India. Given the sluggish export performance, the moderate current account deficit experienced in the recent years, including the condition of modest surplus recorded in 2001-02 can be largely attributed to sustained buoyancy in invisibles receipts. This reflects sharp rise in software service exports and subdued non-oil import demand, which in turn is symptomatic of a slowdown in industrial growth. There is, thus, a need for concerted policy efforts to raise the CAD-GDP ratio in line with the Tenth Plan projections so that higher growth is feasible over the medium term.

III. CAPITAL ACCOUNT, EXTERNAL DEBT AND EXCHANGE RATE: APPROACH, DEVELOPMENTS AND ISSUES

7.51 Reflecting the inward oriented economic policies in pursuit of self-reliance through export bias and import substitution, the role of the capital account during the 1980s was basically that of financing the current account deficits (RBI, 1999). The widening of the current account deficit during the 1980s coupled with the drying up of traditional source of official concessional flows necessitated a recourse to additional sources of financing in the form of debt creating commercial borrowings, non-resident deposits and exceptional financing in the form of IMF loans.

7.52 The external payment crisis of 1991 brought to the fore the weaknesses of the debt-dominated capital account financing. Recognising this, structural reforms and external financial liberalisation measures were introduced during the 1990s. The policy shift underscored the need for gradually liberalising capital account recognising that this is a process rather than a single event (Jalan, 1999). Throughout the 1990s the role assigned to foreign capital in India has been guided by the consideration of financing a level of current account deficit that is sustainable and consistent with absorptive capacities of the economy (Rangarajan, 1993; Tarapore, 1995; Reddy, 2000). In India, the move towards full capital account liberalisation has been approached with extreme caution. Taking lessons from the international experience, the Committee on Capital Account Convertibility, 1997 (Chairman: S. S. Tarapore) suggested a number of pre-conditions, attainment of which was considered necessary for the success of the capital account liberalisation programme in India (Box VII.5). The need for supplementing debt capital with non-debt capital with a clear prioritisation in favour of the latter has characterised the policy framework for capital inflows in the 1990s. The High Level Committee on BoP had recommended the need for achieving this compositional shift. Keeping in line with the policy thrust, capital flows have undergone a major compositional change in the 1990s in favour of non-debt flows (Chart VII.13).

7.53 India followed a gradualist approach to liberalisation of its capital account. India did not experience reversal of its policies towards the capital account as was the case with some emerging market economies that had followed a relatively rapid



Box VII.5

Committee on Capital Account Liberalisation (Chairman: S.S. Tarapore)

With the growing role of private capital flows and the possibility of occasional sharp reversals, the issue of capital account liberalisation and convertibility has spurred extensive debate since 1992 - the period which witnessed a series of currency crises; in Europe (1992-93), Mexico (1994-95), East Asia (1997-98), Russia (1998), Brazil (1999), Turkey (2000) and Argentina (2001-02). These crises have raised the question of desirability of liberalisation and whether it is advisable to vest the IMF with the responsibility for promoting the orderly liberalisation of capital flows. The IMF in its study (1998) stated that "as liberalised systems afford opportunities for individuals, enterprises and financial institutions to undertake greater and sometimes imprudent risks, they create the potential for systematic disturbances. There is no way to completely suppress these dangers other than through draconian financial repression, which is more damaging." The view of IMF itself has changed over time (RBI, 2001). While opening up of the capital account may be conducive to economic growth as it could make available larger stocks of capital at a lower cost

for a capital-deficient country, the actual performance of the economy, however, typically depends on a host of other factors. For a successful liberalised capital account, emerging market countries could: (i) pursue sound macroeconomic policies; (ii) strengthen the domestic financial system; (iii) phase capital account liberalisation appropriately and (iv) provide information to the market. At the international level, there is also the role of surveillance to consider, including the provision of information and the potential need for financing (Fischer, 1997).

In India, the move towards full capital account liberalisation has been approached with extreme caution. The Report of the Committee on Capital Account Convertibility, 1997 (Chairman: S.S.Tarapore) taking into account lessons from international experience suggested a number of signposts, the attainment of which are a necessary concomitant in the move towards capital account convertibility. Fiscal consolidation, lower inflation and a stronger financial system were seen as crucial signposts for India (Table 7.12).

Table 7.12 : Various Recommendations for Capital Account Convertibility (Tarapore Committee)

Recommendations	Developments
Fiscal Consolidation	
1. Reduction in gross fiscal deficit as percentage of gross domestic product from budgeted 4.5 in 1997-98 to 4.0 in 1998-99 and further to 3.5 in 1999-2000.	1. Gross fiscal deficit as a percentage of gross domestic product stood at 5.9 during 2002-03.
Mandated Inflation Rate	
1. The mandated rate of inflation for the three-year period 1997-98 to 1999-2000 should be an average of 3 to 5 per cent.	1. Annual inflation rate based on WPI (base 1993-94=100) averaged at 4.7 per cent during the three years period 1999-2000 to 2001-02.
2. The Reserve Bank should be given freedom to attain mandated rate of inflation approved by the Parliament.	2. Although inflation is an important determinant of monetary policy, in India there is no target/mandated rate of inflation approved by Parliament.
Strengthening of Financial System	
1. Interest rates to be fully deregulated in 1997-98 and any formal or informal interest rate controls to be abolished.	1. All interest rates (except savings bank deposit rate) have been deregulated.
2. CRR to be reduced in phases to 8 per cent in 1997-98, 6 per cent in 1998-99 and to 3 per cent in 1999-2000.	2. CRR was reduced to 4.75 per cent in 2002-03.
3. Gross Non-Performing Assets (NPA) as percentage to total advances to be brought down in phases to 12 per cent in 1997-98, 9 per cent in 1998-99 and to 5 per cent in 1999-2000.	3. Gross NPA of the public sector banks as a percentage to total advances has come down from 16 per cent in end-March 1998 to 11.1 per cent in end-March 2002.
4. 100 per cent marked to market valuation of investments for banks.	4. The concept of 100 per cent marked to market valuation has been done away with. The modern concept works on the basis of banks classifying their entire portfolio into three categories 'Held to Maturity', 'Available for Sale' and 'Held for Trading'. While in the first category, the investment should not exceed 25 per cent, in the other two categories the banks have a freedom to decide the proportion that would be marked to market.
5. Best practices for forex risk management by banks.	5. Risk management guidelines were issued in October 1999, broadly covering areas of credit risk and market risk.
6. Banks to follow international accounting disclosure norms.	6. The range of disclosures as 'Notes to Accounts' in bank's balance sheet in 'Schedule 17' has been gradually expanded over the years.
7. Capital prescription be stipulated for market risks.	7. In March 2000, standard assets were given a risk weight of 0.25 per cent.
Important Macroeconomic Indicators	
1. A monitoring band of +/-5 per cent around the neutral Real Effective Exchange Rate (REER) to be introduced and intervened by the Reserve Bank when REER is outside the band.	1. No such band is maintained in India.
2. Debt service ratio to be reduced to 20 per cent from 25 per cent.	2. Debt Service ratio has steadily declined from 19.5 per cent in 1997-98 to 14.1 per cent in 2001-02.
3. The foreign exchange reserves should not be less than 6 months imports.	3. As of end-February 2003, foreign exchange reserves covers more than a year's imports.

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liberalisation without entrenching the necessary pre-conditions (Box VII.6). This is particularly important since cross-country studies do not provide clear evidence of increase in capital flows resulting from capital account openness across all developing countries, with only 14 developing countries accounting for about 95 per cent of net private flows to developing countries in the 1990s. Besides, empirical evidence on the positive effects of financial capital flows on economic growth is not yet conclusive (Edison *et al*, 2002).

Foreign Investment

7.54 During the first three decades after independence, foreign investment in India was highly regulated. In the 1980s, there was some easing in foreign investment policy in line with the industrial policy regime of the time. The major policy thrust towards attracting foreign direct investment (FDI) was outlined in the New Industrial Policy Statement of 1991. Since then, continuous efforts have been made to liberalise and simplify the norms and procedures pertaining to FDI. At present, FDI is permitted under

automatic route subject to specific guidelines except for a small negative list. In the recent period, a number of measures have been taken to further promote FDI. These include: raising the foreign ownership cap to 100 per cent in most of the sectors, ending state monopoly in insurance and telecommunications, opening up of banking and manufacturing to competition and disinvestment of state ownership in Public Sector Undertakings (PSUs). Though the FDI companies have generally performed better than the domestic companies, FDI to India has been attracted mainly by the lure of the large market (RBI, 2002b).

7.55 Responding to the policy efforts, foreign investment inflows to India (direct and portfolio investments taken together) picked up sharply in 1993-94 and have been sustained at a higher level with an aberration in 1998-99, when global capital flows were affected by contagion from the East Asian crisis. Total foreign investment has averaged at US \$ 5.4 billion during the three year period 1999-2000 to 2001-02 as against negligible levels of the 1980s. However, this level of flows matches the average recorded in

Box VII.6

Capital Account Liberalisation and its Reversal - Cross-country Experience

A number of Southern Cone countries in Latin America undertook rapid liberalisation of their capital account in the late 1970s in conjunction with a pre-announced or fixed exchange rate. Asian countries, such as Malaysia, Indonesia and Singapore also liberalised their capital account against the background of strong balance of payments positions (Rangarajan and Prasad, 1999 and 2001). Many countries prematurely opened their capital account. There was a reversal in the process of liberalisation among many developing countries in the early 1980s. Pre-existing weaknesses in the banking system led to the emergence of serious banking problems which in turn led to the reimposition of controls in Southern Cone countries and debt crisis in Latin America. Restrictions in the capital account were relaxed in the Latin American countries towards the end of 1980s with the resolution of the debt crisis under the Brady Plan and significant reorientation of macroeconomic and structural policies leading to the restoration of international investor confidence. The process of capital account opening in developing countries accelerated in the 1990s, especially with emerging market economies substantially liberalising their capital controls in Asia, Latin America (Argentina, Venezuela) and transition economies (Czech Republic, Hungary, Estonia, Poland). Among these countries, Argentina had to reimpose controls in its capital account in December 2001 in the wake of an unprecedented sovereign debt crisis. In the aftermath of the Asian crisis of 1997, the international perception on liberalisation of capital controls and the national policy thinking on the relative benefits of an open capital account *vis-à-vis* the associated costs have changed considerably. The policy debate

now centres around the contours of an orderly liberalisation framework and countries like Malaysia have even reverted to capital controls as the key instrument of crisis management.

Reversal to the process of capital account liberalisation can be prevented if reforms are appropriately sequenced. Appropriate sequencing of capital flows depends, *inter-alia*, on the initial conditions. It is generally agreed that capital account liberalisation should be preceded by macroeconomic stabilisation. Countries which complete the process of macroeconomic stabilisation first, can remove exchange controls on current account transactions to begin with, to be followed by capital account openness as the benefits of domestic reforms on growth and financial stability become visible and appear durable (Arteta, Eichengreen and Wyplosz, 2001).

In general, liberalisation of the capital account should follow the current account since the former may involve a real appreciation of the exchange rate whereas the latter may require a real depreciation to offset the adverse impact of the dismantling of tariff and non-tariff protection on the balance of payments. Since goods market takes a longer time to clear than financial asset markets, the current account needs to be liberalised first. This is also borne out by the successful experience of Chile as opposed to that of Argentina. Reform of domestic financial markets before capital account liberalisation is generally considered critical, since domestic financial institutions can then be better equipped to face international competition and to intermediate movement of funds efficiently without exposing the system to avoidable risks.

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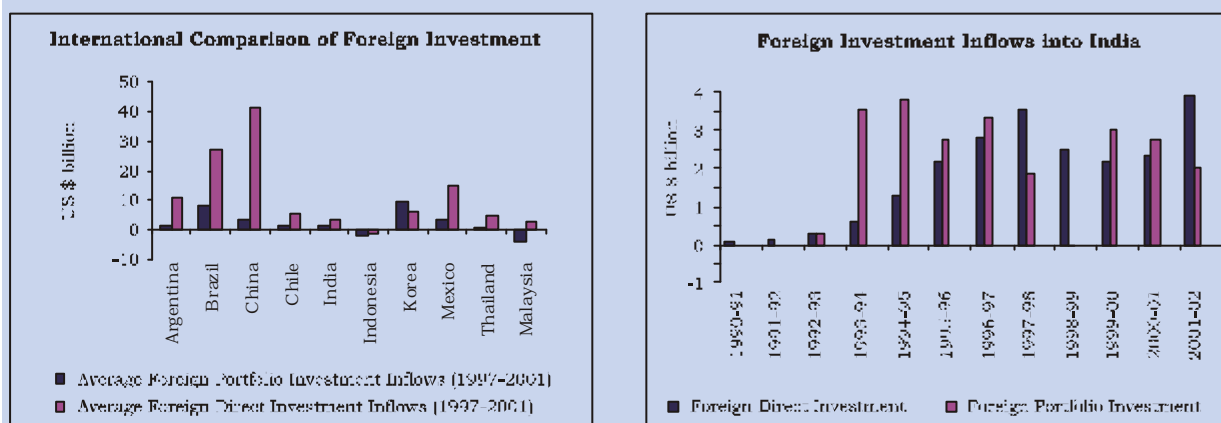
the earlier three-year period 1994-95 to 1996-97. FDI, which was US \$ 0.6 billion in 1993-94 increased sharply over the years to US \$ 3.9 billion in 2001-02. Foreign portfolio investment (FPI) on the other hand, has shown larger year-to-year variations, moving in the range of a net inflow of US \$ 3.8 billion in 1994-95 to a net outflow of US \$ 61 million in 1998-99 (Chart VII.14).

7.56 An industry-wise breakup reveals that the direction of FDI inflows has undergone a structural change over the reform period in line with the policy efforts. During the year 2001-02, computers, electronics and electrical equipments accounted for 34 per cent while services accounted for around 38 per cent of total FDI (excluding NRI investment). A country-wise breakup of FDI inflows reflects the increasing importance of Mauritius as the source of FDI in India during the recent years. This pattern

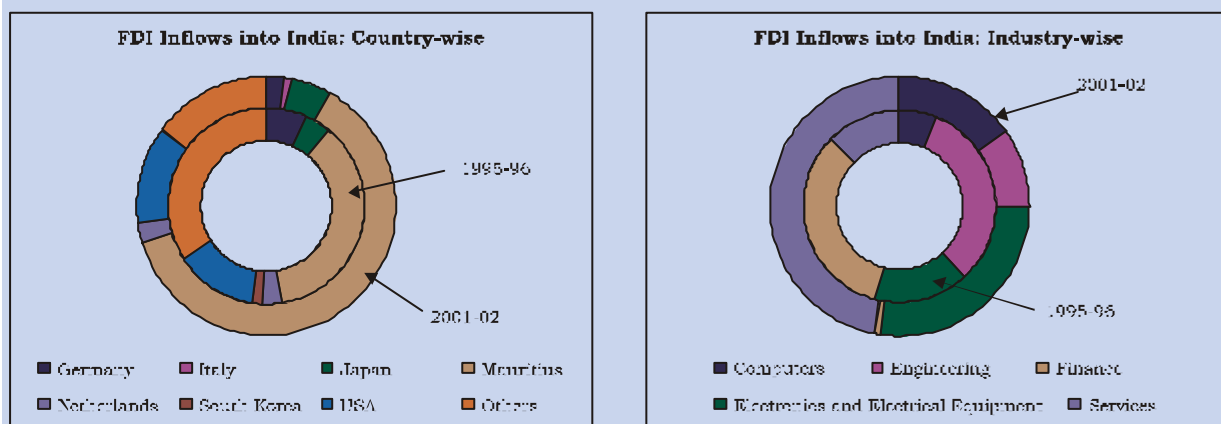
highlights, in a sense, the role of tax policies in influencing the pattern of FDI flows at the global level.

7.57 Although India took significant steps towards inviting FDI in pursuance of its policy of emphasising non-debt creating capital inflows during the reform period, the actual FDI inflows did not pick up on the expected lines. FDI inflows in India remained low in comparison to other emerging market economies. An international comparison of annual average FDI and FPI inflows for the period 1997-2001 shows that such inflows to India were lower than those to emerging market economies like Argentina, Brazil, China, Korea, Mexico, Thailand and Malaysia. India's failure to attract enhanced inflows of FDI strongly underlines the need for further reforms in this context (Bhagwati, 2001). Given the projected need for financing infrastructure projects, on a rough and ready estimate, about 15 per cent of the total infrastructure financing may have

Chart VII.14: India's Foreign Investment



Source: International Financial Statistics, January 2003.



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to come from foreign sources. Since the ratio of infrastructure investment to GDP is projected to increase from 5.5 per cent in 1995-96 to about 8 per cent by 2006, with a foreign financing of about 15 per cent, foreign capital of about 1.2 per cent of GDP has to be earmarked only for the infrastructure sector to achieve the GDP growth rate of about 8 per cent (RBI, 2001b).

7.58 While inward FDI has been actively pursued, the policy framework has also been substantially liberalised in regard to direct investment from India to other countries during the 1990s. Overseas investment in Joint Ventures (JVs) or Wholly Owned Subsidiaries (WOS) have been recognised as important instruments for promoting global business by Indian entrepreneurs. Continuing with the direction of liberalisation of the capital account, companies have been allowed to invest abroad in JVs or WOS with limits which have been relaxed from time to time. At present, the complete use of American Depository Receipts (ADR)/ Global Depository Receipts (GDR) proceeds and the EEFC account balance for this purpose is also permitted. Taking advantage of the policy, the Indian investment abroad has increased from very meagre amounts in early 1990s to US \$ 190 million in 1995-96 and further to US \$ 639 million in 2001-02. The current levels, however, do not reflect the full potential of the Indian business and its improved competitiveness after a decade of wide-ranging reforms.

7.59 Like FDI, the environment for FPI was also made more congenial through procedural changes for investment and by offering more facilities for investment in equity securities as well as in debt securities to a select category of portfolio investors, viz., the Foreign Institutional Investors (FIIs). Furthermore, the sectoral limits for FIIs in the Indian companies were progressively increased over time; these limits have been done away with altogether, except in select specified sectors. The NRIs, Overseas Corporate Bodies (OCBs) and Persons of Indian Origin (PIOs) are also permitted to invest in shares and debentures of Indian companies, government securities, commercial papers, company deposits and mutual funds floated by public sector banks and financial institutions.

NRI Deposits

7.60 NRI deposits in the form of Non-Resident (External) Rupee Account (NR(E)RA) and Foreign Currency Non-Resident Account (FCNR(A)) emerged as a steady flow of foreign capital in India from the

1970s, following the labour migration boom in West Asia in the wake of the first oil shock. The onset of the 1990s saw the introduction of as many as five NRI deposit schemes [Foreign Currency Bank and Ordinary (FC(B&O)), Foreign Currency Ordinary Non-Resident (FC(ON)), Non-Resident Non-Repatriable Rupee Deposit (NR(NR)RD), Non-Resident Special Rupee Account (NR(S)RA) and Foreign Currency Non-Resident Bank (FCNR(B))] between 1990 and 1993 designed to attract foreign exchange in the face of external payments crisis of 1991. With the recovery of the external sector, taking into account the lessons of the experience of various NRI deposit schemes during the 1980s and their contribution in aggravating the payments imbalance of 1990-91, the policies with regard to NRI deposits during the 1990s have been aimed at attracting stable deposits. This has been achieved through: (i) a policy induced shift in favour of local currency denominated deposits; (ii) rationalisation of interest rates on rupee denominated NRI deposits; (iii) linking of the interest rates to LIBOR for foreign currency denominated deposits; (iv) de-emphasising short-term deposits (up to 12 months) in case of foreign currency denominated deposits; and (v) withdrawal of exchange rate guarantees on various deposits. The Reserve Bank has also made an active use of reserve requirements on these deposits as an instrument to influence monetary and exchange rate management and to regulate the size of the inflows depending on the country's requirements. Continuing with the policy of progressive liberalisation of capital account, the NR(NR)RD scheme was discontinued with effect from April 1, 2002 and the maturity proceeds of NR(NR)RD can be credited to the account holder's NRE account only on maturity.

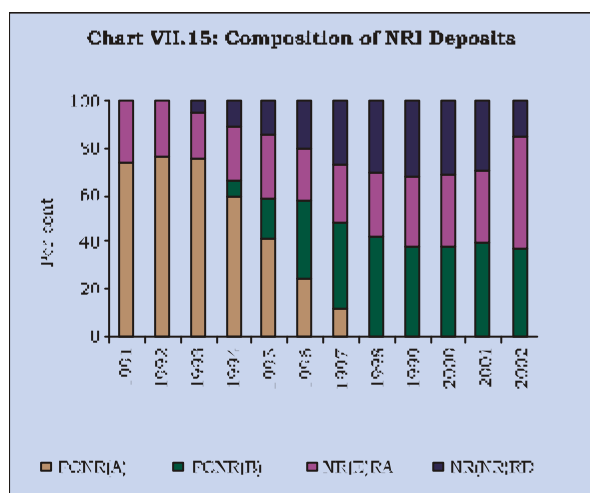
7.61 In line with the above policy perspective, the 1990s witnessed the discontinuation of all foreign currency denominated schemes, where exchange guarantee was provided by the Reserve Bank. In order to minimise the short-term debt burden of the country, the minimum maturity for FCNR(B) deposits has been raised from six months to one year. In view of the Government's policy of deregulating the interest rates, the banks are free to determine the interest rates on rupee denominated NRI deposits. The interest rate on foreign currency denominated FCNR(B) deposits has been linked to LIBOR in order to reduce the arbitrage possibilities.

7.62 An analysis of the movement in NRI deposits reveals that outstanding NRI deposits grew steadily from US \$ 13.7 billion at end-March 1991 to US \$ 25.2 billion at end-March 2002. Deposits under the FCNR(B) scheme increased from US \$ 1.1 billion at

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end-March 1994 to US \$ 9.7 billion at end-March 2002. In case of NR(E)RA scheme, the deposits increased from US \$ 3.6 billion as at end-March 1991 to US \$ 8.4 billion as at end-March 2002. On the other hand, for the non-repatriable rupee denominated NR(NR)RD scheme, the outstanding balances increased from US \$ 621 million in 1993 to US \$ 7.1 billion at end-March 2002.

7.63 The NRI deposits have emerged as a major source of capital inflows during the 1990s. Apart from the size, the success of the policy towards NRI deposits is also reflected in an increase in the proportion of local currency denominated deposits (from around one-fourth in 1991 to almost two-third by 2002) and a substantial decline in short-term NRI deposits (Chart VII.15).



External Commercial Borrowings

7.64 Commercial debt capital includes a whole range of sources of foreign capital where the overriding consideration is commercial. External commercial loans include bank loans, buyers' credit, suppliers' credit, securitised instruments such as Floating Rate Notes and Fixed Rate Bonds, commercial borrowings and the private sector window of multilateral financial institutions.

7.65 The policies towards External Commercial Borrowings (ECBs) since the reform programme have been guided by the overall consideration of prudent external debt management by keeping the maturities long and cost low. ECBs are approved within an overall annual ceiling. Over time, the policy has been guided by a priority for projects in the infrastructure and core sectors such as power, oil exploration, telecom, railways, roads and bridges, ports, industrial parks,

urban infrastructure and for 100 per cent Export Oriented Units (EOUs). To allow further flexibility to borrowers, end-use and maturity prescriptions have been substantially liberalised. Moreover, corporates have been allowed to borrow upto a certain limit under the 'automatic route'. Apart from these, special bonds (India Development Bonds (IDBs), Resurgent India Bonds (RIBs) and India Millennium Deposits (IMDs)) were issued by the State Bank of India aimed at NRIs. The success in mobilising foreign exchange resources through such exceptional schemes reflected the confidence of the global investor community in the Indian economy and imparted an element of stability to the external sector and the overall balance of payments position.

7.66 At times, the rationale behind raising such high cost debt capital has been questioned. Experience, however, would suggest that each time this option was resorted to, it helped in strengthening the confidence in the Rupee and the ability of the country to honour its obligations. The costs of an exchange rate crisis are too severe in relation to cost of debt capital. In a situation of moderate debt-service ratio, such debt capital makes more sense than allowing the exchange rate to fall under pressure. As in the event of payments crisis such as that in 1991, servicing of short-term debt can become difficult, the policies in the 1990s have regulated build-up of short-term debt by allowing short-term credits only for trade-related purposes. Until recently, suppliers' credits of more than 180 days and buyers' credit of all maturities required prior approval from the Reserve Bank. Effective September 2002, with a view to simplify and liberalise the exchange control procedures, the prior approval of the Reserve Bank has been dispensed with for amounts not exceeding US \$ 20 million per import transaction.

7.67 Over the same period, official aid has waned in importance. This reflected mainly growing amortisation payments in the face of sluggish disbursements of external assistance as also availability of alternative private capital flows. Unlike aid, the share of ECBs in total capital flows have increased from around 31 per cent in 1990-91 to around 40 per cent in 1997-98. This has been mainly on account of the higher appetite for ECBs in view of the strong import demand and industrial growth. Subsequently, the increase in ECBs was entirely on account of RIBs and IMDs in 1998-99 and 2000-01, respectively, as the demand for ECBs remained low on account of weak investment demand.

7.68 The impact of the continuum of reforms initiated in the aftermath of the balance of payments crisis of 1991 on India's current account and capital account

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resulted in an accumulation of foreign exchange reserves of over US \$ 70 billion as at end-February 2003. Capital account surplus increased from US \$ 3.9 billion during the 1980s to US \$ 8.6 billion during 1992-2002 with a steadily rising foreign investment. As a proportion of GDP, capital flows increased from 1.6 per cent during 1980s to 2.3 per cent during 1992-2002. The significant increase in capital flows during the 1990s raises the issue of their determinants as well as their impact on growth. Granger-causality tests indicate a unidirectional causation from net capital flows in the Indian context to growth in GDP over the 1970-2000 period. On the other hand, a component-wise analysis suggests that non-debt creating flows seem to Granger cause GDP growth. Capital flows, both debt and non-debt, have also been found to crowd-in investment. Non-debt creating flows are discouraged by a higher fiscal deficit and exchange rate depreciation while greater openness and higher reserves have a positive effect on such flows (RBI, 2002b).

7.69 The sustained increase in capital inflows as discussed above, coupled with the moderate current account deficit, resulted in a surplus from 1993-94 onwards (excepting 1995-96) in the overall balance of payments (Table 7.13). The surplus amounted to US \$ 11.8 billion in 2001-02 as against a deficit of US \$ 0.6 billion in 1992-93 (Chart VII.16).

7.70 The evolution of capital flows over the 1990s reveals a shift in emphasis from debt to non-debt flows with the declining importance of external assistance and ECBs and the increased share of foreign investment-both direct and portfolio. Apart from financing the current account gap, capital flows have played a significant role in India's growth performance.

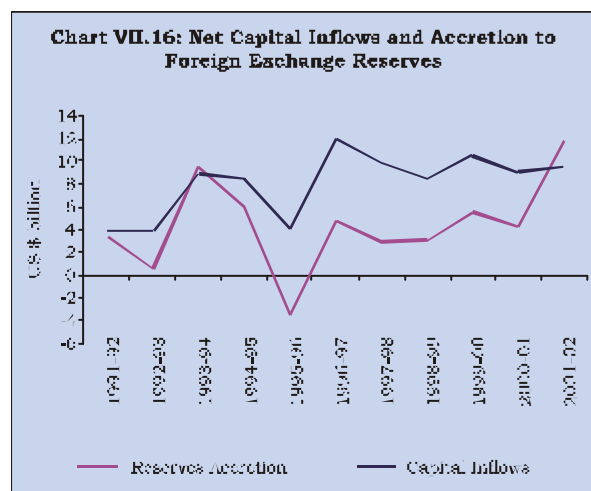


Table 7.13: Balance of Payments - Key Indicators

(Per cent)

Item	1990-91	1995-96	1999-00	2000-01	2001-02
	1	2	3	4	5
1. Trade					
i) Exports/GDP	5.8	9.1	8.4	9.8	9.3
ii) Imports/GDP	8.8	12.3	12.4	12.9	12.0
iii) Trade Balance/GDP	-3.0	-3.2	-4.0	-3.1	-2.7
2. Invisibles Account					
i) Invisible Receipts/GDP	2.4	5.0	6.8	7.5	7.4
ii) Invisible Payments/GDP	2.4	3.5	3.8	4.9	4.5
iii) Invisibles (Net)/GDP	-0.1	1.6	3.0	2.6	2.9
3. Current Account					
i) Current Receipts@/GDP	8.0	14.0	15.1	17.2	16.7
ii) Current Receipts Growth@	6.6	18.2	12.9	17.1	1.4
iii) Current Receipts@/Current Payments	71.5	88.8	93.0	96.4	101.2
iv) CAD/GDP	-3.1	-1.7	-1.0	-0.5	0.3
4. Capital Account					
i) Foreign Investment / GDP	—	1.4	1.2	1.1	1.2
ii) Foreign Investment / Exports	0.6	14.9	13.8	11.4	13.2
5. Others					
i) Debt-GDP Ratio	28.7	27.0	22.2	22.3	20.8
ii) Debt Service Ratio	35.3	24.3	16.2	17.3	14.1
iii) Liability Service Ratio	35.6	24.7	17.0	18.3	15.3
iv) Import Cover of Reserves (in months)	2.5	6.0	8.2	8.6	11.3

@ Excluding official transfers. — Negligible.

Evidence of strong complementarity with domestic investment suggests that capital flows brighten the overall investment climate and stimulate domestic investment even when a part of the capital flows actually gets absorbed in the form of accretion to reserves. The growth-augmenting role of foreign capital, particularly FDI, however, seems to have been constrained by the low levels of actual and planned absorption of foreign capital in India (RBI, 2001). The key indicators of balance of payments as explained in Table 7.13 show considerable improvement in India's balance of payments since 1991.

External Debt Management

7.71 Efforts towards prudent management of external debt, keeping in view sustainability, solvency and liquidity were put in place in most of the countries in response to the Latin American debt crisis of 1982. Subsequently, the financial crisis of Mexico in 1994-

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95 and Indonesia, Korea, Malaysia, Thailand and other Asian countries in 1997 highlighted the need for a sound macroeconomic policy for managing short term private capital flows, particularly the debt creating ones. The East Asian crisis emphasised the need for monitoring: (i) both public and private debt; (ii) the size as well as the composition and maturity structure of external debt; (iii) inter company debt between direct investors and subsidiaries, branches and associates; (iv) trade credits, buyers and suppliers credits; (v) money market instruments; (vi) loans from foreign financial institutions for normal inter bank transactions and other commercial purposes; and (vii) foreign currency denominated deposits held by non-residents (Kappagoda, 1999). The East Asian crisis not only highlighted the need for monitoring the short-term debt, but it also emphasised the need for compilation of external debt (both long-term and short-term) on residual maturity basis, rather than original maturity basis. The former gives a better picture of the scheduled foreign exchange drain in the coming years on account of amortisation payments. In addition, the need for greater transparency and accountability, particularly in information disclosed by the private sector, has also been recognised as essential for avoidance of payments crisis (Kumar, 1999; Das, 1999; Williamson, 1999; Mohanty *et al*, 1999; Patra *et al*, 1999).

7.72 Apart from the need to contain current account deficit to sustainable level, one of the lessons from the external payment crisis of 1991, was to avoid excessive reliance on commercial debt especially of short-term maturity to finance the current account deficit. The approach to the external debt management was broadly based on the recommendations of the Rangarajan Committee, 1993. Following these recommendations, the strategy for external debt management during the 1990s has been guided by: (i) the continuation of an annual cap, minimum maturity restrictions and prioritising the use of ECBs; (ii) LIBOR based ceilings on interest rates and minimum maturity requirements on foreign currency denominated NRI deposits to discourage the volatile component of such deposits; (iii) reduction of short-term debt together with controls to prevent its undue increase in future; (iv) retiring/ restructuring/ refinancing of more expensive external debt; (v) measures to encourage non-debt creating financial flows such as FDI and FPI; (vi) incentives and schemes to promote exports and other current receipts; and (vii) conscious build-up of foreign exchange reserves to provide effective insurance against external sector uncertainties.

7.73 Key indicators of debt sustainability point to the continuing consolidation and improved solvency in the 1990s. Although, in nominal terms, India's total outstanding external debt increased from US \$ 83.8 billion at end-March 1991 to US \$ 98.5 billion at end-March 2002, external debt to GDP ratio declined sharply from 28.7 per cent at end-March 1991 to 20.9 per cent at end-March 2002 (Charts VII.17 and VII.18). Prudent external debt management is also reflected in the proportion of short-term debt to total debt declining from 10.2 per cent in 1991 to 2.8 per cent in 2002 and in the ratio of short-term debt to foreign exchange reserves from a high of 146.5 per cent in the crisis period of 1991 to only 5.1 per cent in 2001-02. Debt service ratio declined from 35.3 per cent in 1990-91 to 14.1 per cent in 2001-02 (Table 7.14). Interest payments to current receipts ratio declined from 15.5 per cent in 1990-91 to 5.4 per cent in 2001-02.

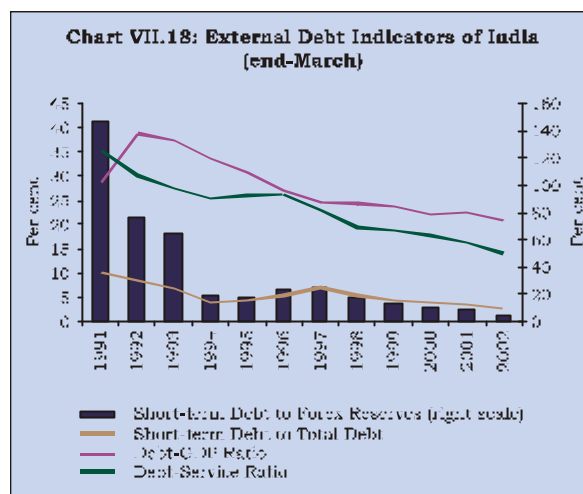
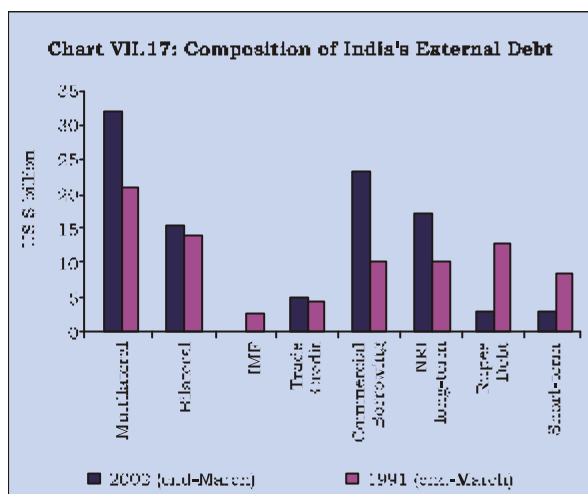
Table 7.14: Major Indicators of External Debt (as at end-March)

(Per cent)

Items	1991	1996	2000	2001	2002
	1	2	3	4	5
I. Total Debt to GDP	28.7	27.0	22.1	22.4	20.9
II. Short-term Debt (original maturity) to GDP	2.9	1.4	0.9	0.8	0.6
III. Concessional Debt to Total Debt	45.9	44.7	38.9	35.5	36.0
M. Short-term Debt (original maturity) to Foreign Exchange Reserves	146.5	23.2	10.3	8.6	5.1
V. Short-term Debt (original maturity) to Foreign Currency Assets	382.1	29.5	11.2	9.2	5.4
VI. Non-Debt Liabilities and Short-term Debt to Reserves	148.2	92.3	99.9	100.8	88.4
VII. Short-term Debt and Non-debt Reversible Liabilities to Reserves	146.6	71.1	59.0	58.5	48.1
VIII. Debt Service Ratio	35.3	24.3	16.2	17.5	14.1
IX. Debt to Current Receipts	328.9	188.9	145.6	126.2	122.5
X. Liability Service Ratio	35.6	24.7	17.0	18.3	15.3

7.74 The decade of 1990s witnessed a steady move towards consolidation of India's external debt statistics in terms of size, composition and indicators of solvency and liquidity. Containing the increase in the size of external debt to a modest level in the face of a tremendous growth in foreign exchange reserves

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during the decade definitely points towards the success of India's debt management strategy. Reflecting this, in terms of indebtedness classification, the World Bank has categorised India as a less indebted country since 1999. Among the top 15 debtor countries of the world, India improved its rank from third debtor after Brazil and Mexico in 1991 to ninth in 2000 after Brazil, Russian Federation, Mexico, China, Argentina, Indonesia, Korean Republic and Turkey. Moreover, among them, key external debt indicators such as short-term debt to total debt and short-term debt to forex reserve ratios are the lowest for India; the concessional to total debt ratio is the highest, while debt to GNP ratio is the second lowest after China.

Exchange Rate Management

7.75 In the context of globalisation and currency crises, recent years, particularly, have seen a renewed interest on the issues relating to exchange rate regime, which is evident in the large and growing body of theoretical and empirical literature on the subject. Nevertheless, both in theory as well as in practice, the state of the debate is unsettled. A worldwide consensus is still evolving in search of an appropriate and credible exchange rate regime. Contemporaneously, in India also, discussion and debate on issues relating to the appropriate exchange rate system, policies on intervention, capital control and foreign exchange reserves figure very prominently. This is especially relevant with the introduction of a market-based exchange rate system in March 1993 and in the context of global currency crises, particularly the East Asian Crisis.

7.76 The task of determining appropriate exchange rate and market intervention policies is extremely difficult for central banks all over the world. In principle, and in theory, there is a strong case for either freely floating exchange rates (without intervention) or a currency board type arrangement of fixed rates (Edwards, 2000; Summers, 2000; Buiters 2000). In practice, however, because of the operational realities of foreign exchange markets, empirical research shows that most countries have adopted intermediate regimes of various types including crawling pegs, fixed rates within bands, managed floats with no pre-announced path, and independent floats with market intervention moderating the rate of change and preventing undue fluctuations (Williamson, 2000). By and large, most countries have some variety of "managed" floats and central banks intervene in the markets periodically.

7.77 Reflecting the growing role of private capital flows in the 1990s, there has been a shift in the exchange rate regimes with a trend towards corners—either fixed regimes or floating regimes. For instance, about half of the IMF member countries as at end-December 2001 were at the corners. In contrast, the proportion of countries at the corners was only one-fourth as at end-December, 1991. As at end-December 2001, 41 countries had independent float exchange rate system, 42 countries had managed float with no pre-announced path for exchange rate, 40 countries had exchange arrangements with no separate legal tender, 40 countries had other conventional fixed pegged arrangements, eight countries had currency board arrangements, five countries had pegged exchange rates within horizontal bands, four countries had crawling pegs and six countries had exchange rates within crawling bands.

7.78 In India the exchange rate system has undergone a paradigm shift from a system of fixed exchange rate (until March 1992) to a market-determined regime in March 1993. Since the switchover to a market determined exchange rate regime in March 1993, the behaviour of the exchange rate has remained largely orderly, interspersed by occasional episodes of pressures, which were relieved through appropriate intervention operations consistent with the stated policy of avoiding undue volatility in the exchange rate without reference to any target, whether explicit or implicit. The financial crises encountered by the emerging markets in the last decade have brought to the fore the importance of an appropriate exchange rate policy. The present Indian regime of managed flexibility that focuses on managing volatility without reference to any target has gained increasing international acceptance and well served the requirements of the country in the face of significant liberalisation of external sector transactions. This is particularly so in the context of the series of exchange rate crises experienced by several emerging economies undertaking similar macroeconomic reforms.

7.79 In the post-Bretton Woods period, the Rupee was effectively pegged to a basket of currencies of India's major trading partners from September 1975. This system continued through the 1980s, though the exchange rate was allowed to fluctuate in a wider margin and to depreciate modestly with a view to maintain competitiveness. However, the need for adjusting exchange rate became precipitous in the face of the external payments crisis of 1991.

7.80 As a part of the overall macroeconomic stabilisation programme, the exchange rate of the Rupee was devalued in two stages by 18 per cent in terms of the US dollar in July 1991. The transition to market determined exchange rate system took place in two stages and the sequencing was based on the Report of the High Level Committee on Balance of Payments, 1993 (Chairman: C. Rangarajan). The Liberalised Exchange Rate Management System (LERMS) instituted in March 1992 was a dual exchange rate arrangement under which 40 per cent of the current receipts were required to be surrendered to the Reserve Bank at the official exchange rate while the rest 60 per cent could be converted at the market rate. The 40 per cent portion surrendered at the official rate was for meeting the essential imports at a lower cost. Although the experience with the dual exchange rate system in terms of volatility in the market determined segment of the forex market was

satisfactory, it involved an implicit tax on exports and other invisibles receipts and thereby emerged as a source of distortion. As a system in transition, the LERMS performed well in terms of creating the conditions for transferring an augmented volume of foreign exchange transactions on to the market.

7.81 The unified market determined exchange rate regime replaced the dual regime on March 1, 1993 and since then "the objective of exchange rate management has been to ensure that the external value of the Rupee is realistic and credible as evidenced by a sustainable current account deficit and manageable foreign exchange situation. 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, help maintain adequate level of reserves, and develop an orderly foreign exchange market" (Jalan, 1999). In order to reduce the excess volatility in the foreign exchange market, the Reserve Bank has undertaken market clearing sale and purchase operations in the foreign exchange market to moderate the impact on exchange rate arising from lumpy demand and supply as well as leads and lags in merchant transactions. Such interventions, however, are not governed by any pre-determined target or band around the exchange rate.

7.82 The experience with the market determined exchange rate regime has been satisfactory, although the exchange rate management had to occasionally contend with a few episodes of volatility. The period from March 1993 till August 1995 was a phase of significant stability. Capital inflows coupled with robust export growth exerted upward pressure on the exchange rate. However, the Reserve Bank absorbed the excess supplies of foreign exchange. In the process, the nominal exchange rate of the Rupee *vis-à-vis* the US Dollar remained virtually unchanged at around Rs.31.37 per US Dollar over the extended period from March 1993 to August 1995. The real appreciation that resulted from the positive inflation differentials prevailing during this period triggered off market expectations and resulted in a market led correction of the exchange rate of the Rupee during September 1995-February 1996. In response to the upheavals, the Reserve Bank intervened in the market and also resorted to monetary tightening so as to restore orderly conditions in the market after a phase of orderly correction for the perceived misalignment (RBI, 1996).

7.83 The period since 1997 has witnessed a number of adverse internal as well as external developments. The important internal developments include the

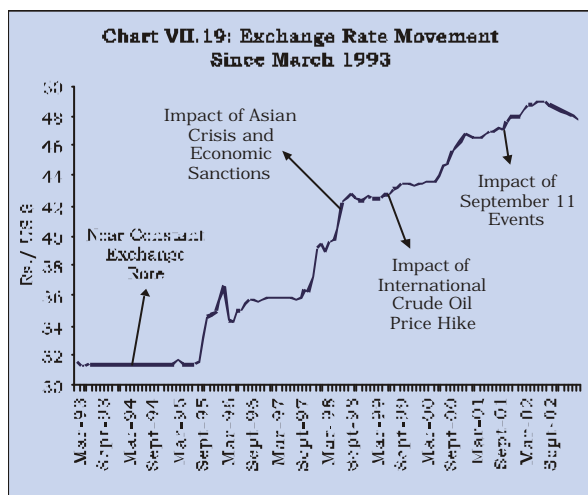
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economic sanctions imposed in the aftermath of nuclear tests conducted during May 1998 and the border conflict during May-June 1999. The external developments included, *inter alia*, the contagion from the Asian crisis, the Russian crisis during 1997-98, sharp increases in international crude oil prices in the period beginning with 1999, especially May 2000 onwards, and the post-September 11, 2001 developments in the US. These developments created a large degree of uncertainty in the foreign exchange market at various points of time, leading to excess demand conditions in the market (Chart VII.19). The Reserve Bank responded through appropriate intervention supported by monetary and other administrative measures like variations in the bank rate, repo rate, cash reserve requirements, refinance to banks, surcharge on import finance and minimum interest rates on overdue export bills. These measures helped in curbing destabilising speculation, while at the same time allowing an orderly correction in the value of the Rupee (Pattnaik, Kapur and Dhal, 2002).¹⁰

7.84 A related issue that has figured in the literature is whether the exchange rate should be managed by monitoring Nominal Effective Exchange Rate (NEER) or Real Effective Exchange Rate (REER). "From a

competitive point of view and also in the medium term perspective, it is the REER, which should be monitored as it reflects changes in the external value of a currency in relation to its trading partners in real terms. However, it is no good for monitoring short term and day-to-day movements as 'nominal' rates are the ones which are most sensitive of capital flows... Thus, in the short run, there is no option but to monitor the nominal rate" (Jalan, 2002).

7.85 Since the introduction of the market determined regime in March 1993, the Rupee has depreciated by 35 per cent upto February 2003 against the US dollar, *i.e.*, from Rs.31.52 to Rs.48.73 per US dollar. In terms of effective exchange rates, the NEER depreciated by 31.1 per cent, while the REER (5 country trade based index) recorded a depreciation of 2.2 per cent during the period 1993-94 to 2002-03 (up to February 2003) (Table 7.15). A notable feature of the exchange rate in the recent years has been the two-way movement that has increased the risk profile of such market players who maintain open positions guided by the perception that the exchange rate can move only one way in India.



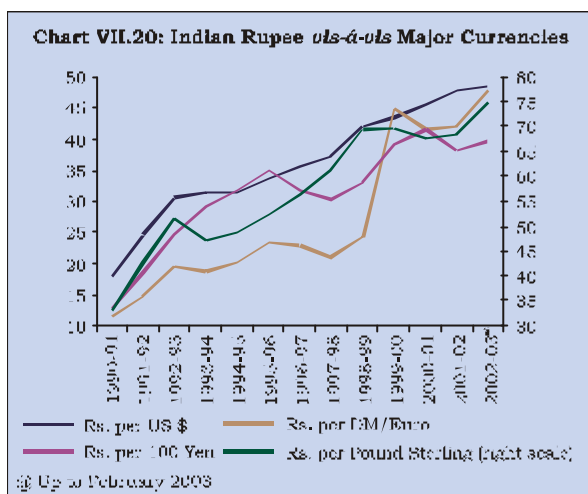
10. An impulse response analysis with output, inflation, interest rates and exchange rates as the four variables of the SVAR reveals that a positive shock to interest rate (indicating contractionary monetary policy) leads to reduction in aggregate demand and output and appreciation in the exchange rate in the short run. Pattnaik and Mitra (2001) found similar results with their analysis in a 3-variable VAR (exchange rate, direct market intervention and call money rates). The results on the efficacy of monetary policy in stabilising the exchange rate appear to be robust across different identification schemes.

Table 7.15: Exchange Rate and the REER and NEER of the Indian Rupee

Year	Rupees per US Dollar	REER (5 country trade weights with 1993-94=100)	NEER
	1	2	3
1990-91	17.94	141.69	175.04
1991-92	24.47	116.48	131.54
1992-93	30.65	112.31	117.81
1993-94	31.37	100.00	100.00
1994-95	31.40	105.81	96.09
1995-96	33.45	102.29	87.69
1996-97	35.50	103.43	86.38
1997-98	37.16	105.84	86.43
1998-99	42.07	97.79	76.45
1999-00	43.33	96.74	74.22
2000-01	45.68	100.76	73.77
2001-02	47.69	102.09	73.18
2002-03 (up to Feb '03)	48.46	97.77	68.88

7.86 The Indian Rupee depreciated against all the other major currencies during the 10-year period 1993-94 to 2002-03 (up to February 2003). The Rupee depreciated against the Pound Sterling and the Japanese Yen by 37 per cent and 27 per cent, respectively, during this period. It depreciated against the Euro by 6 per cent between 1999-2000 and 2002-03 (up to February 2003) (Chart VII.20).

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7.87 As a whole, India's current exchange rate policy seems to have stood the test of time. It has focused on the management of volatility without fixed rate target, while underlying demand and supply conditions are allowed to determine the exchange rate movements in an orderly way. The Reserve Bank will continue to follow the approach of watchfulness, caution and flexibility by closely monitoring the developments in the domestic and financial markets in home and abroad. It will co-ordinate its market operations carefully, particularly in regard to forex market with appropriate monetary, regulatory and other measures as considered necessary from time to time (RBI, 2002c).

IV. FOREIGN EXCHANGE RESERVES: APPROACH, DEVELOPMENTS AND ISSUES

Approach

7.88 The subject of foreign exchange reserves has received renewed interest in recent times in the context of increasing globalisation, acceleration of capital flows and integration of financial markets. The debt-banking-financial crises in several countries have also necessitated the need for an international financial architecture in which the management of foreign exchange reserves has emerged as one of the critical issues.

7.89 Contextually, the subject of foreign exchange reserves may be broadly classified into two inter-linked areas, viz., the theory of reserves and the management of reserves. The theory of reserves encompasses issues relating to institutional and legal arrangements for holding reserve assets, conceptual and definitional aspects, objectives for holding reserve

assets, exchange rate regimes and conceptualisation of the appropriate level of foreign reserves. In essence, a theoretical framework for reserves provides the rationale for holding foreign exchange reserves. Reserve management is mainly guided by the portfolio management consideration, i.e., how best to deploy foreign reserve assets subject to statutory stipulations? The portfolio considerations take into account *inter alia*, safety, liquidity and yield on reserves as the principal objectives of reserve management. The institutional and legal arrangements are largely country specific and these differences should be recognised in approaching the critical issues relating to both reserve management practices and policy-making (Reddy, 2002).

7.90 The motives for holding reserves may be broadly classified under three categories, viz., transaction, speculative and precautionary. International trade gives rise to currency flows, which are assumed to be handled by banks driven by the transaction motive. Similarly, speculative motive is left to individuals or corporates. Central bank reserves, however, are characterised primarily as a last resort stock of foreign currency for unpredictable flows, which is consistent with precautionary motive for holding foreign assets. Precautionary motive for holding foreign currency, like the demand for money, can be positively related to wealth and the cost of covering unplanned deficit, and negatively related to the return from alternative assets. Furthermore, foreign exchange reserves are instruments to maintain or manage the exchange rate, while enabling orderly absorption of international capital flows. Official reserves are mainly held for precautionary and transaction motives keeping in view the aggregate of national interests, to achieve balance between demand for and supply of foreign currencies, for intervention, and to preserve confidence in the country's ability to carry out external transactions.

7.91 The objectives for maintaining reserves are: (i) maintaining confidence in monetary and exchange rate policies; (ii) enhancing capacity to intervene in foreign exchange markets; (iii) limiting external vulnerability by maintaining foreign currency liquidity to absorb shocks during times of crisis including national disasters or emergencies; (iv) providing confidence to the markets, including credit rating agencies, that external obligations can always be met (thus reducing the overall costs at which foreign exchange resources are available to all the market participants); and (v) adding to the comfort of the market participants, by demonstrating the backing of domestic currency by external assets.

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7.92 India's approach to reserve management, until the balance of payments crisis of 1991 was essentially based on the traditional approach, *i.e.*, to maintain an appropriate level of import cover defined in terms of number of months of imports equivalent to reserves. For example, the import cover of reserves shrank to three weeks of imports by the end of December 1990, and the emphasis on import cover constituted the primary concern say, till 1993-94. The approach to reserve management, as part of exchange rate management, and indeed the overall external sector policy underwent a paradigm shift with the adoption of the recommendations of the High Level Committee on Balance of Payments, 1993 (Chairman: C. Rangarajan). The Committee had recommended that the foreign exchange reserve targets be fixed in such a way that they are generally in a position to accommodate imports of three months. In the view of the Committee, the factors that are to be taken into consideration in determining the desirable level of reserves are: (i) the need to ensure a reasonable level of confidence in the international financial and trading communities about the capacity of the country to honour its obligations and maintain trade and financial flows; (ii) the need to take care of the seasonal factors in any balance of payments transaction with reference to the possible uncertainties in the monsoon conditions of India; (iii) the amount of foreign currency reserves required to counter speculative tendencies or anticipatory actions amongst players in the foreign exchange market; and, (iv) the capacity to maintain the reserves so that the cost of carrying liquidity is minimal.

7.93 With the introduction of market determined exchange rate, a change in the approach to reserve management was warranted and the emphasis on import cover had to be supplemented with the objective of smoothening out the volatility in the exchange rate, which has been reflective of the underlying market condition (RBI, 1996). Against the backdrop of currency crises in East-Asian countries and in the light of country experiences of volatile cross-border capital flows, there emerged a need to take into consideration a host of factors. The shift in the pattern of leads and lags in payments/receipts during exchange market uncertainties brought to the fore the fact that besides the size of reserves, the quality of reserves also assumes importance. Unencumbered reserve assets (defined as reserve assets net of encumbrances such as forward commitments, lines of credit to domestic entities, guarantees and other contingent liabilities) must be available at any point of time to the authorities for fulfilling various objectives assigned to reserves (RBI, 1998). As a part of prudent management of external liabilities, the policy is to keep forward liabilities

at a relatively low level as a proportion of gross reserves (RBI, 1999).

7.94 The overall approach to management of foreign exchange reserves reflected the changing composition of balance of payments and liquidity risks associated with different types of flows and other requirements. The policy for reserve management is built upon a host of identifiable factors and other contingencies, including, *inter alia*, the size of the current account deficit and short-term liabilities (including current repayment obligations on long-term loans), the possible variability in FPI and other types of capital flows, the unanticipated pressures on the balance of payments arising out of external shocks and movements in repatriable foreign currency NRI deposits (RBI, 2000).

7.95 An important issue which has figured prominently in the current debate on foreign exchange management is the question of appropriate policy for management of foreign exchange reserves. In a regime of free float, it can be argued that there is no need for reserves. In the light of volatility induced by capital flows and self-fulfilling expectations that this can generate, there is now a growing consensus among emerging market economies to maintain 'adequate' reserves (Jalan, 2002). Therefore, while focusing on prudent management of foreign exchange reserves in recent years, the 'liquidity at risk' associated with different types of flows has come to the fore (RBI, 2001). With the changing profile of capital flows, the traditional approach to 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. A sufficiently high level of reserves is necessary to ensure that even if there is prolonged uncertainty, reserves can cover the liquidity at risk on all accounts over a fairly long period. Taking these considerations into account, India's foreign exchange reserves have reached a very comfortable level. The current thinking in this regard has been clearly articulated: "The prevalent national security environment further underscores the need for strong reserves. We must continue to ensure that, leaving aside short-term variations in reserves level, the quantum of reserves in the long-run is in line with the growth of the economy, the size of risk-adjusted capital flows and national security requirements. This will provide us with greater security against unfavourable or unanticipated developments, which can occur quite suddenly" (RBI, 2002c). In the context of the uncertain

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ramifications of the current developments in Iraq, the relevance of a comfortable reserve level appears particularly important. Unlike 1990-91, implications of such developments in the Gulf region for the external sector appears modest and manageable, mainly due to the comfortable reserve level.

7.96 The foregoing discussion points to the evolving considerations and a paradigm shift in India's approach to reserve management. The shift has occurred from a single indicator to a menu or multiple indicators approach. Furthermore, the policy of reserve management is built upon a host of factors, some of which are not quantifiable, and in any case, weights attached to each of them do change from time to time.

Developments

7.97 In India, reserves have been steadily built up by encouraging non-debt creating flows and de-emphasising debt creating flows, particularly short-term debt. This strategy, coupled with the maintenance of an acceptable level of current account deficit and market determined exchange rate regime was the cornerstone of the policy of external sector management. In the context of the changing interface with the external sector and the importance of the capital account, reserve adequacy is now evaluated by the Reserve Bank in terms of several indicators and not merely through conventional norms, such as, the import cover. As a matter of policy, as far as possible, foreign exchange reserves are kept at a level which is adequate to withstand both cyclical and unanticipated shocks (RBI, 1999).

7.98 In the context of increasing cross-border linkages and the growing importance of the capital account, it became necessary to evaluate reserve adequacy in terms of both conventional indicators and non-conventional norms (Reddy, 1997). The Report of the Committee on Capital Account Convertibility, 1997 (Chairman: S. S. Tarapore) suggested four alternative measures to assess reserve adequacy: (i) import cover of six months; (ii) import cover of three months plus 50 per cent of annual debt service payments plus one month's imports and exports to take into account the possibility of leads and lags; (iii) ratio of short-term debt and stock of portfolio investment related non-debt liabilities to reserves at not more than 60 per cent; and (iv) the net foreign exchange assets to currency ratio (NFA/currency ratio) at around 70 per cent with a minimum of 40 per cent for this ratio to be stipulated by the RBI Act. In recent times, Pablo Guidotti has suggested that emerging market economies must maintain usable forex reserves exceeding scheduled amortisation of foreign

currency debts falling due (assuming no roll-overs) during the following year. The concept of 'usable reserves' merits particular attention in view of the developments experienced by Korea and Thailand during the 1997 crisis. A large part of the gross reserves was not available to the authorities to defend the falling exchange rates. Greenspan (1999) suggested a 'liquidity-at-risk' rule and observed that "countries could be expected to hold sufficient liquid reserves to ensure that they could avoid new borrowing for one year with a certain *ex ante* probability, such as 95 per cent of the time".

7.99 India is amongst the top ten reserve holding emerging market nations (Charts VII.21-23 and Table 7.16). Reserve adequacy indicators also place India at a comfortable position *vis-à-vis* emerging market economies (Table 7.17).

Table 7.16: Total International Reserves minus Gold

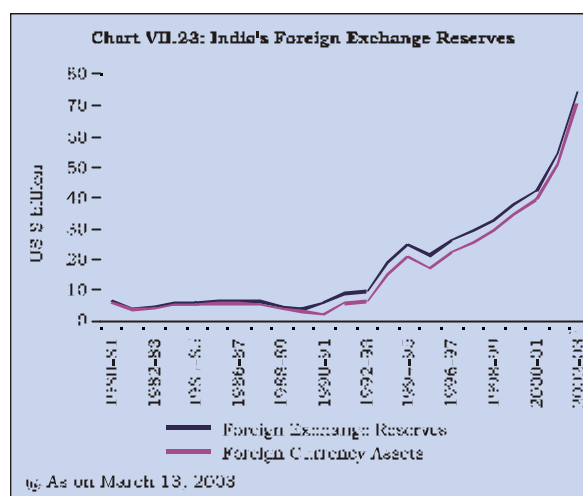
Countries/Country Groups	(SDR billion)				
	1963	1973	1983	1993	2002 (Nov)
	1	2	3	4	5
1. All countries	26.6	116.8	362.3	797.7	1837.3
2. Industrial countries	19.2	79.9	206.2	413.4	727.0
3. Developing countries	7.5	36.9	156.1	384.3	1110.3
4. Asia	2.7	8.6	54.6	220.3	703.8
<i>of which:</i>					
i. China, People's Rep.	—	—	14.3	16.3	204.2 @
ii. Hong Kong	—	—	—	—	83.8
iii. India	0.4	0.7	4.7	7.4	48.5
iv. Indonesia	0.0	0.7	3.6	8.2	21.9
v. Korea, Republic of	0.1	0.7	2.2	14.7	89.3
vi. Malaysia	0.4	1.1	3.6	19.8	25.7
vii. Philippines	0.1	0.8	0.7	3.4	9.8
viii. Singapore	0.4	1.9	8.9	35.2	60.6
ix. Thailand	0.5	1.0	1.5	17.8	27.8

@ Data refer to October 2002.

Source : International Financial Statistics, Yearbook 2002 and December 2002.



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7.100 India's foreign exchange reserves increased from US \$ 4.7 billion in June 1991 to US \$ 73.9 billion as on March 13, 2003. The predominant component of foreign exchange reserves is in the form of foreign currency assets that increased from US \$ 1.1 billion to US \$ 71.7 billion during the same period (Chart VII.23). The gold holdings of the Reserve Bank remained broadly stable at around US \$ 3-4 billion during the same period. SDR holdings of the Government came down from US \$ 63 million in June 1991 to US \$ 4 million as on March 13, 2003. The movement in India's foreign exchange reserves since

1993-94 can be divided into three phases: (i) the period March 1993 to March 1995, when reserves increased sharply from US \$ 9.8 billion to US \$ 25.2 billion, (ii) the period March 1995 to March 1999, when reserves increased moderately to US \$ 32.5 billion, and (iii) finally since 1999-2000, when there was a phenomenal increase in reserves - as much as US \$ 41.3 billion cumulatively (by US \$ 5.5 billion in 1999-2000, US \$ 4.2 billion in 2000-01, US \$ 11.8 billion in 2001-02, and US \$ 19.8 billion during 2002-03 (up to March 13, 2003).

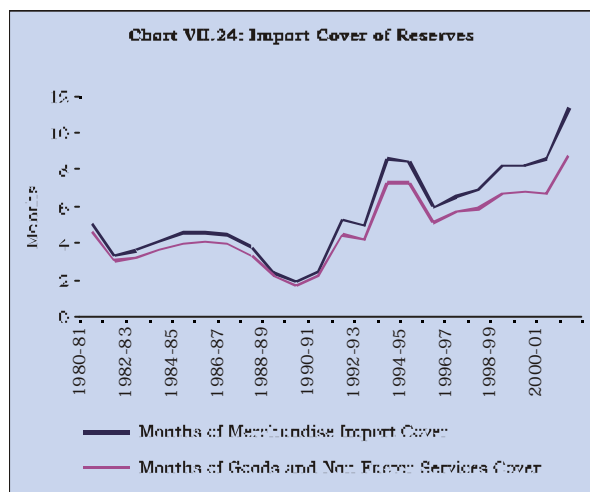
Table 7.17: Indicators of Reserve Adequacy

Country	Reserves/Imports (Weeks of Imports)			Reserves/Short term External Debt (Per cent)		Reserves/ External Debt (Per cent)	
	1999	2000	2001	1999	2000	1999	2000
	1	2	3	4	5	6	7
Brazil	35.00	28.88	33.40	119.06	104.87	14.28	13.65
Chile	46.86	41.38	41.51	1231.62	582.21	42.04	39.83
India	36.14	38.41	48.08	831.3	1095.38	33.28	37.76
Indonesia	57.29	44.21	45.69	132.00	125.88	17.53	20.1
Korea	32.11	31.15	37.87	212.84	237.59	56.74	71.51
Mexico	11.64	10.58	13.83	132.09	187.59	18.96	23.63
Philippines	21.12	20.07	22.29	230.09	219.33	24.95	26.07
Thailand	35.12	26.78	27.12	145.49	215.19	35.20	40.19
China	49.46	42.46	46.04	891.97	980.20	102.26	112.35
Hungary	20.32	18.12	16.54	309.32	269.64	36.71	38.04
Malaysia	24.49	18.66	21.47	509.15	635.78	73.03	70.57
Turkey	29.84	21.86	23.87	99.49	77.79	22.88	19.35
Venezuela	41.15	42.09	26.3	596.12	743.75	32.16	34.28
Argentina	53.51	51.81	37.25	89.23	88.81	18.07	17.21
Hong Kong SAR	27.88	26.28	28.75	—	—	—	—

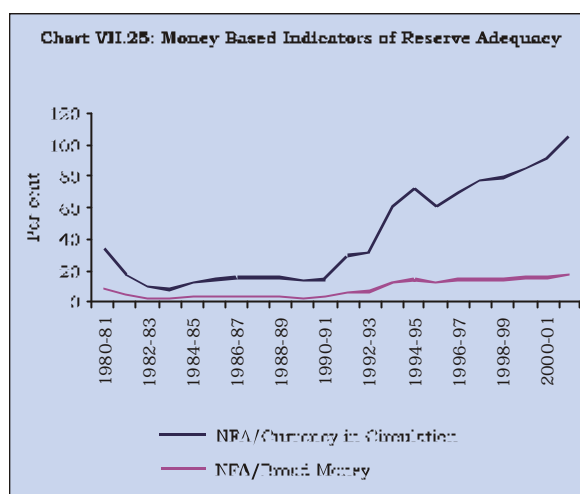
Sources : (1) International Financial Statistics Yearbook, 2002,
(2) Global Development Finance, World Bank 2002,
(3) International Financial Statistics, January 2003.

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7.101 The traditional trade-based indicator of reserve adequacy, *i.e.*, the import cover of reserves (foreign currency assets), which fell to a low of two weeks of imports in June 1991 improved to 11.3 months of imports as at end-March 2002. Import cover of reserves further increased to nearly 14 months of imports by March 2003 (Chart VII.24). In terms of the money-based indicators, the ratio of net foreign exchange assets of the Reserve Bank to currency in circulation sharply increased from 14.4 per cent at end-March 1991 to 105.2 per cent at end-March 2002 while that of net foreign exchange assets to broad money increased from 3.0 per cent to 17.6 per cent over the same period (Chart VII.25). The debt-based indicators of reserve adequacy also steadily improved in the 1990s. The ratio of volatile capital flows (defined as cumulative portfolio flows and short-term debt to reserves), which was 71.1 per cent as at end-March 1996 fell to 48.1 per cent as at end-March 2002. The ratio of short-term debt to reserves declined from 146.5 per cent in 1990-91 to 5.1 per cent in 2001-02 (Chart VII.26). Taking these factors into account, India's foreign exchange reserves are at present comfortable and consistent with the rate of growth, the share of external sector in the economy and the size of the risk adjusted capital flows (RBI, 2002c).



7.102 As a part of prudent reserve management policy, the net forward liabilities have been kept at relatively low levels. The proportion of forward liabilities declined from 6.1 per cent of gross reserves at end-March 1998 to 0.3 per cent at end-August 2002 (Chart VII.27). In the subsequent months, these have been fully retired and the Reserve Bank held net forward assets of US \$ 2.6 billion in February 2003.

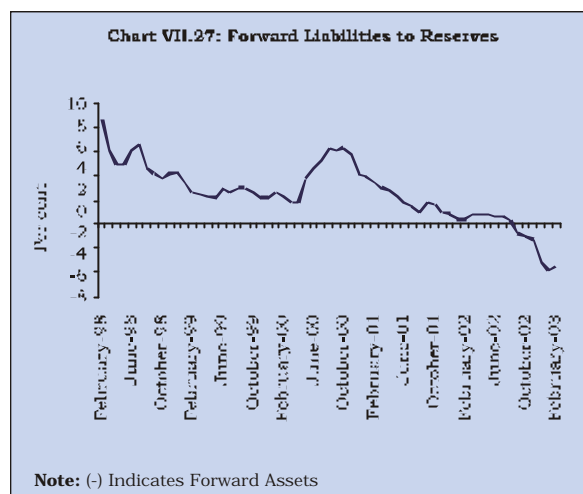
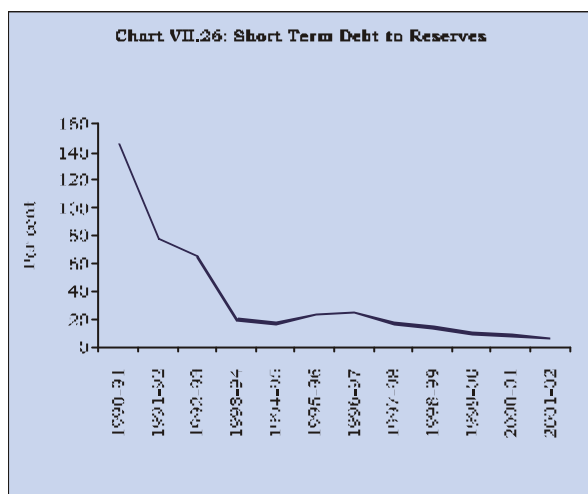


7.103 While the significant accretion to foreign exchange reserves has provided comfort on external sector management, two contentious issues have come to the fore. These are the trade-off between costs and benefits accruing from the reserves accretion and the associated monetary impact that emanates from it.

International Reserves and Optimality

7.104 The policy of accretion to reserves to meet the transactions and precautionary needs generally involves both financial and economic cost to the country. In the absence of any unique definition of the opportunity cost, one comes across several interpretations in the literature, the applicability of which depends on the particular economic context. When an economy is both foreign exchange and saving constrained, the opportunity cost could be the rate of return on domestic investment (assuming that the foreign exchange used to finance unsatiated investment demand would have fetched the return on domestic investment). When an economy is only foreign exchange constrained, the opportunity cost could be in terms of foregone consumption. When an economy is not foreign exchange constrained (*i.e.*, all productive forex demand are met before the reserves are built up), the opportunity cost would depend on the difference between the cost of borrowing and the return on reserve assets. If high cost borrowings are used to build reserves on which modest returns are obtained because of the emphasis on safety and liquidity of reserve assets, such reserve build-up policies may prove more costly. Another form of cost - often known as the quasi-fiscal cost - arises from the higher rate of return on domestic assets *vis-à-vis* foreign assets. Since sterilised intervention gives rise to an offsetting change in the domestic asset holding

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of a central bank when its foreign assets increase, the overall profits arising from the total asset portfolio of the central bank's balance sheet may decline. As a result, the profits transferred to the Government - which represents a major source of non-tax revenue for the Government - may decline. For countries operating with large fiscal imbalances, such a decline in non-tax revenue could prove more costly, forcing a higher mobilisation of tax revenue or a cut in expenditure that may affect growth and development.

relationship between import propensity and reserves (Frankel, 1974; Edwards, 1984). While the inverse relationship between reserves and the propensity to import has been interpreted as the extent of adjustment to an external shock, the direct relationship is an indicator of the degree of openness. Eaton and Gersovitz (1980) formally introduced the concept of transactions demand for reserves. In addition to the 'conventional' variables, Ben-Bassat and Gottlieb (1992) introduced risk of default or sovereign risk into the assessment of precautionary demand for reserves. Lane and Burke (2001) adopted a broad approach to identify the potential determinants of reserves and found: (i) trade openness to be the most important variable along with financial deepening (M_2/GDP); (ii) smaller and more volatile industrial countries hold larger reserves than their larger, less volatile counterparts; and (iii) more indebted developing countries had smaller reserve ratios. The traditional determinants identified in the empirical literature on foreign exchange reserve holdings are presented in Table 7.18.

7.105 The development of money demand theory along the lines of optimal inventory control or buffer stock model provides a natural theoretical benchmark for the study of optimal reserve accumulation and has spurred a large body of empirical literature in the late 1960s and early 1970s (Grubel, 1971; Kelly, 1970). Heller (1966) used a cost-benefit approach and stressed that the issue is one of choosing an optimal level of reserves at which the central bank minimises the total expected cost i.e., the sum of the adjustment cost that is incurred when reserves reach some lower bound and the opportunity cost. Heller's estimation indicated that optimal reserves are directly proportional to the variability of exports and are inversely related to the opportunity cost variable (defined as foregone earnings or economic welfare). Frankel and Jovanovic (1981) and Landell-Mills (1989) also found a negative relationship between the demand for reserves and its opportunity cost. Flood and Marion (2001), however, did not find any relationship between reserves and opportunity cost. The sign of the propensity to import has also turned out to be ambiguous in the literature. Several studies have found an inverse relationship, (Heller, 1966; Kelly, 1970; Heller and Kahn, 1978; Landell-Mills, 1989) while some others found a positive

Table 7.18: Determinants of the Demand for Reserves

Variables	Description
Scalar variable	Imports, per capita income, GDP, population
Propensity to import	Marginal/average propensity to import
Variability measure	Exports, imports, terms of trade, receipts, payments, nominal effective exchange rate, balance of payments, reserves
Opportunity cost	Marginal product of capital (MPK) or in the absence of MPK, per capita output (as an inverse proxy for marginal product of capital), marginal utility of consumption, rate of interest on borrowing from abroad, net foreign indebtedness, the government bond yield, the spread between the government bond yield and short-term international interest rates, marginal productivity of social capital, one-year deposit rate.

7.106 Analytically and empirically, reserve holding appears to be an under-researched area. Clear standard methodologies have yet to evolve on this subject. However, relatively high demand for international reserves by countries in Far East and relatively low demand by some other countries has attracted attention. Aizenman and Marion (2002) recently showed that for 125 developing countries, reserve-holding over 1980-1996 period could be predicted by the size of international transactions, their volatility, the exchange rate arrangement and political considerations. Sovereign risk and fiscal liabilities led to relatively large precautionary demand for reserves.

7.107 Aizenman and Marion (2002) showed that there has been a structural break in the equation for the demand for reserves in several Asian countries that were affected by crisis in 1997. Using a standard estimating equation, they found that over the period 1960-96, their model over-predicted the reserve holdings of countries such as China, Taiwan, Hong Kong, South Korea and Singapore implying thereby that their reserves were low in relation to what was estimated as desirable in the model. Out of sample forecasts of desirable levels generated for 1997-99, however, under predicted the reserve holding (i.e., actual reserves holdings exceeded the predicted desirable level). Such a result has to be assessed in the context of the overall change in policy stance of the emerging market economies in the aftermath of the Asian crisis that viewed high reserves as an appropriate policy of "self-insurance".

7.108 In India, the determinants of reserve holdings appear to have changed considerably and evolved over the recent years with the gradual opening up of the capital account, the Asian crisis (with contagion emerging as a significant determinant), the imposition of sanctions following the nuclear explosion in Pokhran in May 1998 and the subsequent rating downgrade on foreign currency borrowings. These new factors, by their very qualitative nature, are difficult to quantify. Taking recourse to exceptional external borrowings in the form of RIBs (1998-99) and IMDs (2000-01) could be interpreted as the manifestation of the precautionary demand for reserves by the authorities; but for RIBs and IMDs, accretion to reserves during these two years would have been negative.

7.109 The substantial growth in reserves since 2001-02 has generated a debate regarding the cost of holding reserves. While the cost of reserves is secondary to properly meeting the overall objective behind holding reserves, it is important to note that in India, in the last few years, almost the whole addition

to reserves has been made without increasing the overall level of external debt, which has hovered around US \$ 100 billion during the previous five years. The increase in reserves largely reflects higher remittances, quicker repatriation of export proceeds and non-debt flows (RBI, 2003). Even after taking into account foreign currency denominated NRI flows (where interest rates are linked to LIBOR), the financial cost of additional reserve accretion in India in the recent period is low (RBI, 2002).

Monetary Impact of Foreign Exchange Reserves

7.110 While the reserve build up policies of the emerging market economies like India reflect the importance of appropriate reaction to the vastly altered conditions prevailing at both national and global levels, high reserve policies also entail several other implications, particularly for monetary management and in terms of the quasi-fiscal costs, both of which pose a different type of challenge to the policy makers.

7.111 Cross-country experiences of surges in capital inflows indicate that in the context of the limited capacity of the economy to absorb capital flows in the form of higher productive investment and the resultant implications for the exchange rate, monetary authorities often intervene in the foreign exchange market to absorb the surplus in the market and thereby avoid nominal appreciation of the exchange rate. A non-sterilised (or partially sterilised) intervention can, however, cause a sharp rise in the monetary base and hence higher inflation. Real appreciation resulting from higher inflation could erode external competitiveness; lower interest rates could also fuel lending and consumption boom, that can potentially lead to a sharp deterioration in the current account balance and culminate in a possible currency crisis. When the conflict between the policy objectives of checking nominal appreciation and limiting inflation emerges, central banks attempt to counter inflation through sterilised intervention, which by nature appears money supply neutral.

7.112 Among the instruments available for sterilisation, recourse to open market operations (OMOs) is particularly effective if inflows are temporary and there exists a near perfect elastic demand for domestic government securities. However, if the demand for government securities is not perfectly elastic in view of the limited absorptive capacity of market participants and the underdeveloped nature of the financial markets, OMOs can cause domestic interest rates to rise, nullifying the impact of sterilisation as higher interest rates could attract larger capital inflows. Sterilisation typically involves exchanging high-yielding

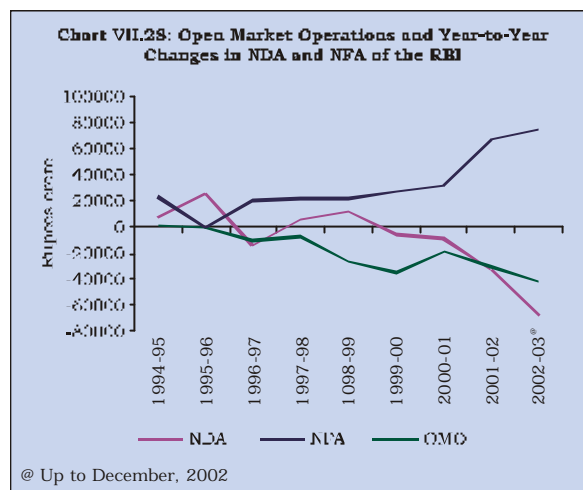
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domestic assets for low-yielding foreign assets and, therefore has quasi-fiscal costs. The degree of effectiveness of sterilised intervention would therefore depend on: (i) the sensitivity of domestic interest rates to OMOs and (ii) the degree to which foreign capital flows respond to such interest rate variations. The combined effect, which is captured through the estimated “offset coefficient”, indicates that the value of the coefficient may range between 0 and (-) 1, with values close to zero indicating “effectiveness of sterilisation” and values close to (-) 1 indicating “ineffective sterilisation”. Over the period April 1993 to March 1997, the offset coefficient for India turned out to be (-) 0.3, suggesting that sterilisation of the surges in capital flows experienced during the 1990s was effective (Pattanaik, 1997). Sterilisation induced increase in interest rates, however at times, may be more than offset by the change in the stance of monetary policy. When capital flows are persistent and sterilisation proves ineffective, cross-country studies show that countries often attempt a few options available to them. These include: fiscal adjustment, easing of restrictions on capital outflows, accelerated trade liberalisation, lower interest rates on foreign currency deposits, prepayment of costly debt, adoption of new sterilisation techniques such as foreign exchange swaps, switching of government deposits from the banking system to the central bank, imposition of taxes on domestic assets purchased by foreigners, fixing of ceilings on foreign borrowings by domestic residents, and recourse to indirect capital controls, such as variable unremunerated reserve requirements on certain categories of foreign borrowing. In the Indian case, capital flows have had a softening effect on interest rates and positive effect on broad money growth.

7.113 Capital inflows have served the twin purpose of meeting India's domestic investment-saving gap and the need for reserve accretion consistent with the standard indicators of reserve adequacy. The latter objective has become more prominent recently in tandem with the pattern seen in many Asian countries in the aftermath of the Asian crisis.

7.114 The surge in capital flows often poses a challenge to the conduct of monetary and exchange rate policy. As a result of large accretion to reserves resulting from surges in capital flows in the face of low domestic absorption, there has been a substantial increase in net foreign exchange assets (NFA) of the Reserve Bank. In the period since 1992-93, the NFAs have grown at a higher rate than net domestic assets (NDAs) (excepting 1995-96). In fact, NDAs held by the Reserve Bank had to be brought down by

sterilisation through OMOs (particularly since 1996-97) to check the expansion in the monetary base. The extent of sterilisation, however, varied from year-to-year, depending on the requirements to modulate liquidity conditions. With sustained surge in capital flows since 1999-2000, the NDAs of the Reserve Bank even recorded a decline in absolute terms on account of significant OMOs (net sales) (Chart VII.28).



7.115 There is hardly any formal analysis available for emerging market economies (including India) to evaluate the monetary impact of large capital flows econometrically. One way to assess the impact is to simulate the emerging monetary condition in counterfactual scenarios where reserve accretion is placed at lower levels. For this purpose, an interest rate reaction function has been estimated that relates domestic interest rate to its possible determinants like inflation, output and capital flows along with a conventional money demand equation in terms of income and interest rate (Box VII.7). Controlling for the impact on interest rates from the accretion to reserves, the counterfactual path generated through a simulation exercise under lower reserves accumulation points towards a perceptible monetary impact of reserves in the 1990s in terms of higher broad money demand (Charts VII.29 and VII.30).

7.116 In the period of surge in capital flows and significant accretion to foreign exchange reserves with the monetary authority, the literature points to the emergence of newer channels of monetary expansion, especially, if there is a disassociation between the growth of broad money and reserve money. In India, over the 1980s and 1990s, notwithstanding a fall in reserve money growth, broad money grew almost at the same level in the two decades, which may be

Box VII.7

Monetary Impact of Foreign Exchange Reserves - An Empirical Exercise

One way to assess the monetary impact of reserves is through the approach adopted for Mexico and India (Kamin and Wood, 1998; Rath, 2002). This approach involves two equations: (1) an interest rate reaction function and (2) a money demand function.

The money demand function is of the following form:

$$\log(RM_3) = \alpha - \beta i + \delta \log(Y) + e_M \quad (1)$$

where, RM_3 is real demand for money, i is domestic interest rate and Y is real income. A rise in real income would lead to higher demand for real money balances while increase in the relative return from holding non-monetary assets would lead to a decline in money holding. With a stable money demand function, the impact of forex reserves on money would emanate through the interest rate channel. Unlike the standard Taylor type reaction function where the interest rate responds to inflation-gap (for a given inflation target) and output-gap (for given potential output), the interest rate reaction function presented below is posited to respond positively to both inflation and output growth. In this framework, interest rates may be modulated in response to increase in capital flows (proxied by reserves).

$$i = v + \lambda p + \phi y - \theta R + e_i \quad \dots(2)$$

where, p is the rate of inflation, y is the growth in real output and R is the level of reserves.

In the model, the impact of reserves on money demand is indirect through its impact on interest rate (i) derived from (2) and then through interest rate on money demand given by (1), as:

$$dRM_3 / dR = (dRM_3 / di) * di / dR = (-\beta) (-\theta) > 0 \quad \dots(3)$$

Through simulation exercise, counterfactual paths of interest rates and money balances are charted that would have occurred under

lower reserve build up. Using the monthly data during September 1980 to September 2002, equations (1) and (2) are estimated. In the Indian context, since monthly data on real GDP is not available index of industrial production (IIP) has been used as the proxy variable. As regards the interest rate, the call rate is assumed to be a proxy for the short-term money market rate of interest. Inflation is measured by change in wholesale price index. Extreme fluctuations in the call rate and the seasonal effects on money demand have been captured through the inclusion of appropriate dummies (represented as D) in the equation. The estimated equations are:

$$\begin{aligned} \log RM_3 = & 0.094 + 0.96 \log RM_{3(-1)} + 0.054 \log(IIP) - \\ & (4.23) \quad (116.7) \quad (5.09) \\ & 0.033 \text{Call}_{(-1)} + 0.0062 S_{10, \dots} (4) \\ & (-1.95) \quad (2.09) \end{aligned}$$

$$\bar{R}^2 = 0.99 \quad DW = 1.98$$

$$\begin{aligned} \text{Call} = & 0.041 + 0.242 P_{(-2)} + 0.081 \Delta \log(IIP)_{(-2)} + 0.072 \Delta \log(IIP)_{(-3)} \\ & (5.48) \quad (1.45) \quad (3.34) \quad (2.94) \end{aligned}$$

$$\begin{aligned} & + 0.055 \Delta \log(IIP)_{(-4)} + 0.52 \text{Call}_{(-1)} + 0.15 \text{Call}_{(-4)} \\ & (2.46) \quad (16.1) \quad (4.64) \end{aligned}$$

$$\begin{aligned} & - 0.003 \log(R)_{(-1)} + 0.12D \dots (5) \\ & (-2.68) \quad (18.1) \end{aligned}$$

$$\bar{R}^2 = 0.79 \quad DW = 1.96$$

The signs of the coefficients of the variables in equations (4) and (5) are along expected lines. The impact of foreign exchange reserves on interest rate and money demand is then analysed through simulation of the two equations and comparing the forecast values with another simulation under the assumption that reserves are ten per cent lower than the baseline.

Chart VII.29: Impact of Foreign Exchange Reserves on Interest Rate

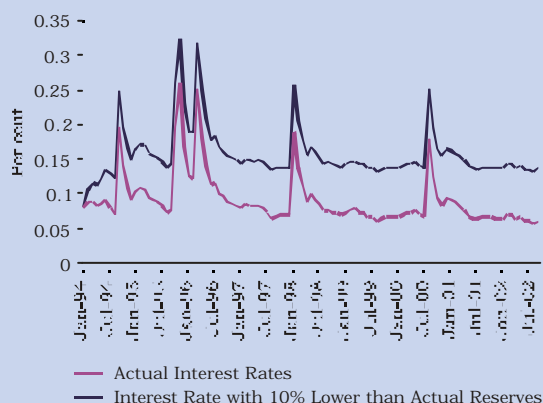
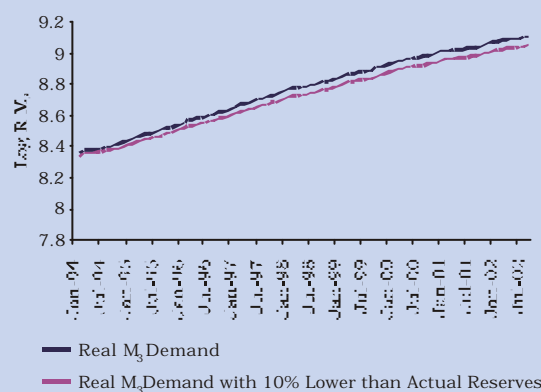


Chart VII.30: Impact of Foreign Exchange Reserves on Broad Money (M)



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symptomatic of such a disassociation. The stylised simulation model in Box VII.7 is an attempt at exploring the likely mechanism that characterises the underlying process of monetary expansion. The exercise suggests that had there been a lower reserve accumulation with the Reserve Bank, the interest rate would perhaps have been higher, thus, possibly signifying that the liquidity effect of reserve accumulation would have outweighed the sterilisation effect in the Indian context.

7.117 In the 1990s, composition of reserve money expansion has shifted from domestic assets to foreign assets reflective of the surge in capital flows, accumulation of reserves and sterilisation operations of the Reserve Bank. Sterilisation operations have so far been successful in arresting reserve money growth to levels where the inflationary potential of capital flows has been kept in control. However, future concerns on monetary management may arise, among others, from the following factors:

- need to ensure sufficient stock of Government securities at the hands of the Reserve Bank for sterilisation operations of the required magnitude;
- the absorption capacity of the financial system for Government securities once the credit demand picks up; and
- the upward drift in money multiplier arising partly from fall in currency-deposit ratio and CRR has sustained higher growth of broad money in the face of declining reserve money growth. With financial liberalisation and market-determined interest rates, there is evidence that innovations to money multiplier emanate from interest rates and other macroeconomic variables (such as growth) apart from the conventional proximate determinants (Jha and Rath, 2001). To the extent that these newer determinants of money multiplier are not entirely under the control of the monetary authority, it poses a challenge for the Reserve Bank to manage the emerging monetary conditions.

Capital Inflows, Foreign Exchange Reserves and Growth

7.118 The coexistence of slowdown in the growth rate of the Indian economy in the recent period and the sharp build-up of foreign exchange reserves, has fuelled the debate on their possible inter-relationship and has called into question, in some quarters, the extant policy of reserve accretion. A recent study (See Box VII.8 for details) for example, has contended that India could have attained a higher growth trajectory

had capital inflows been allowed to be absorbed by the economy (instead of accumulating them as foreign exchange reserves of the central bank) and had fiscal deficits not been incurred. According to the study, the entire foreign capital can be absorbed by allowing the real exchange rate to appreciate. The real appreciation could be engendered either by allowing the nominal exchange rate to appreciate or by allowing prices to increase (*i.e.*, non-sterilised reserve build-up which will increase the money supply and thereby give rise to both higher inflation and lower interest rates – both of which can increase absorption). An econometric exercise shows that the growth rate could have been higher by about 1 to 6 per cent in different years in the 1990s. The study makes the following policy recommendations: (i) the reserve management policy should be replaced by appropriate monetary and exchange rate policies that could boost growth; (ii) have a tighter fiscal policy (to contain the crowding out effect) and an easier monetary policy (by non-sterilisation of reserves – that could increase prices and lower interest rates); (iii) high reserves and low domestic inflation provide the right environment against which the Rupee can be made fully convertible on the capital account; and (iv) replace on the managed exchange rate regime by full float.

7.119 The above results and policy prescriptions, however, need to be viewed with a great deal of circumspection. First, it needs to be recognised that high reserves reflect the lack of absorption/demand, and prescribing real appreciation as a means to raise domestic absorption completely disregards the importance of the trade-off between growth and stability and the role of a central bank in ensuring stability as a means to higher growth.

7.120 Second, the experience of the emerging market crises in the last decade shows that with low reserves and appreciated real exchange rate, India would have also faced a similar (or even more severe) crisis. On an average, the crisis years witnessed a sizeable growth reversal of the order of 6 to 7 per cent in all the crisis affected countries which could have offset the perceived 'first round' gains to the growth rate.

7.121 Third, it also needs to be recognised that even if REER appreciation is allowed to ensure full absorption of foreign capital, it is important to examine whether the full absorption (*i.e.* higher current account deficit) would result from an increase in imports or a major fall in exports. Given the asymmetric response of exports and imports to price changes brought about by REER appreciation, it is possible that a higher CAD

Box VII.8

Is Foreign Exchange Reserves Build-up Inimical to Growth?

A study by Lal, Bery and Pant (2003) has contended that the growth rate in the Indian economy would have been much higher had capital inflows been absorbed by the economy instead of being accumulated as foreign exchange reserves. The Study bases its conclusion on the relationship between the real exchange rate, capital inflows, excess demand and the growth rate. The Study estimates the real exchange rate (*er*) as the ratio of the prices of traded goods to non-traded goods, as obtained from the WPI series. Net capital flows (*B*) are taken to include transfers (mainly workers' remittances). The 'excess demand' variable (*ED*) (reflecting the fiscal and monetary impact) is constructed from the national income accounting identities, as the difference between the trade deficit and capital inflows, inclusive of remittances. The relationship between the three variables is estimated thus:

$$er_t = 87.6 B_t + 3.05 ED_t$$

(1.62) (2.25)

$$R^2 = 0.26, \text{ adj. } R^2 = 0.18, F = 3.119, N = 20$$

The growth estimates consistent with full absorption of capital flows have been derived essentially by estimating the degree to which 'er' would have been misaligned with full market absorption of capital flows. The higher (S-I) gap resulting from full absorption can increase the capital stock, which would yield higher growth through a production function having two factors of production (*i.e.* labour and capital).

A few technical anomalies are apparent in the above formulation.

First, R^2 is too low and the DW is not stated. Reworking on their data shows the presence of serious autocorrelation with a DW of 1.18. Furthermore, the Cusum Square criterion shows that the equation is highly unstable. Consequently, any estimation/inference based on the above exercise would be highly tentative. In a separate exercise, a correction for autocorrelation using the Cochrane-Orcutt method brought about a reversal of the signs of both the excess demand (*ED*) and the capital inflow (*B*) coefficients.

Second, it is not clear how the 'er' series generated in the study can explain the impact of full absorption of foreign capital. Since the 'er' series is the relative price of tradeables and non-tradeables taken separately from the disaggregated WPI data for India, it may only explain the relative profitability of tradeable and non-tradeable sectors within the economy. The prices prevailing in the external markets (*i.e.* export markets and the markets from where the import originates) are, however, of significance to exporters and importers. The real appreciation cannot increase absorption, because 'er' cannot explain how the relative prices of domestic tradeables will change *vis-à-vis* international prices as a result of domestic nominal appreciation. In the absence of information on the latter, it is difficult to assess how the CAD would widen as a result of real appreciation. The most striking aspect of the 'er' series is that it shows very modest misalignment over the entire period 1981-2000. The series is not only smoother than the series published by the Reserve Bank but it also lies above the RBI series throughout the twenty year period covered in the study. It almost suggests that the prices of tradeables and non-tradeables moved in tandem, irrespective of the behaviour of the nominal exchange rate (which depreciated during this period) and inflation differentials (which remained positive throughout). The Study mentions that domestic prices of tradeables in rupees are the same as foreign prices of tradeables converted at the nominal exchange rate. This theoretical identity has not been verified empirically and since the Study uses only the tradeable prices

from WPI, it does not explain how the effects of any change in nominal exchange rate can get transmitted to tradeable prices. In the absence of a transmission channel, even if nominal exchange rate appreciates due to full absorption of capital flows in the market, REER may not appreciate.

Third, the 'er' equation – that is used to determine the misaligned rate under full absorption – has net capital flows plus remittances (*i.e.* *B*) and excess demand (*i.e.* *ED*) on the right hand side. Since *ED* has been derived as [*ED*=(*M-X*) –*B*], if both *B* and *ED* are taken in the same equation, there could be the problem of multicollinearity. Furthermore, the coefficient of *B* in the equation is statistically insignificant (*i.e.* not different from zero). The authors, however, use the *B* coefficient to estimate the misaligned 'er'. Also, as already mentioned, a part of *B* gets absorbed in financing the deficit in the goods and services account and therefore, something less than *B* could be taken to estimate the 'er' consistent with full absorption. Most importantly, it is not clear why the estimated 'er' from a regression of 'er' on *B* can be viewed as the proxy for the 'er' that would have prevailed under condition of full absorption. Given that a large part of *B* was already used for reserve build-up, that would have prevented major change in 'er' (both by preventing nominal appreciation and by sterilising the monetary impact of reserves). The empirical relationship between the two, therefore, should be negligible, which is also obtained in the regression equation as evidenced by the statistical insignificance of the *B* coefficient. In the absence of any argument explaining why the estimated 'er' would approximate the full absorption-'er', it is not evident whether the channel suggested for increasing the absorption of foreign capital would help in raising growth. The estimated 'er' series that fully captures the impact of full absorption shows only very modest appreciation over the period 1981 – 2001 (a cumulative real appreciation of only 8 per cent over a 20 year period). With full absorption, however, one would have expected a much larger real appreciation.

Fourth, in the production function equation, full absorption impact enters only through a change in the capital stock. In a sense, it does not use the estimated 'er'. It only mentions about the factor *A*, which depends on the elasticity of substitution in both demand and supply between tradeables and nontradeables. The manner in which *A* is derived in the production function is critical, since the value of *A* can greatly influence the projected growth rate for any given level of capital and labour. It appears that the estimated values of *A* have a strong upward bias, and in the absence of any convincing justification supporting the determination of the value *A*, the entire exercise appears to be the result of discretionary adjustments.

Fifth, the reason why the Study obtains a high growth rate from the full absorption of capital flows is that "net capital flows and remittances" have been taken as the proxy for extra capital that is available under their hypothetical situation for addition to capital stock. It should, however, be recognised that these inflows would have already been partly utilised for financing the deficit in the goods and services account. After the partial absorption, only the remaining amount under "net capital flows plus remittances" should have been viewed as the proxy for extra absorption. Since the surplus capital flows used as proxy for extra absorption has been overestimated by close to 40 per cent, the growth estimates also turn out to be higher. Moreover, even if one uses the correct figure on surplus capital flows, the production function used in

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the model may still yield a higher growth than what one would obtain through simple application of Incremental Capital-Output Ratio (ICOR). Since the authors do not mention anything about the productivity gains associated with capital flows and because that they only rely on increase in capital stock resulting from full absorption of foreign capital in the production function, it remains completely unclear as to why the growth could be higher than what the conventional ICOR would suggest.

Finally, even assuming that the entire capital flows would have been allowed to supplement domestic saving to ensure higher investment, then the annual investment could have increased (say) by about 2 percentage points (with capital flows of about 3 per cent of GDP in the 1990s, 1 per cent was already used to finance current account deficit). Given the incremental capital output ratio of close to 4, additional growth of about 0.5 per cent could have been achieved (not 1 to 6 per cent as has been estimated in the paper).

would be attained more by a fall in exports than an increase in imports. It needs no emphasis that the external sector sustainability hinges critically on the performance of the export sector, and in the face of zero incremental reserves resulting from full absorption, weak export growth could be a strong source of vulnerability to crisis. On the other hand, even if imports increase in response to exchange rate appreciation, it is possible that import demand may just replace domestic demand, and as a result aggregate demand may remain unaltered. In other words, when imports are not driven by overall demand conditions (as is the case now) but are encouraged through a policy of exchange rate appreciation, imports may only compete with domestic supply and in the face of no increase in aggregate demand, the higher absorption through cheaper imports could displace some of the domestic manufacturers and thereby lower growth. Thus, growth gained through full absorption could be offset by lower growth resulting from displacement of domestic producers.

7.122 Fourth, the contention that full absorption of capital flows would significantly reduce the extent of crowding out by allowing a larger part of the fiscal deficit to be monetised, ignores the possibility of 'crowding in' effects by certain types of government expenditure which at times may dominate the crowding-out effects.

7.123 Finally, it needs to be recognised that foreign capital should not be allowed either to give rise to excessive consumption or excessive investment just to ensure full absorption. When foreign capital finances consumption demand (as in Mexico) or sustains an investment driven overheating (as in South East Asia), higher growth can be obtained only at the cost of a severe financial crisis. High reserves, a flexible exchange rate regime, and cautious liberalisation of the capital account, together aim at preventing a crisis. Sterilisation is a strong instrument to regain monetary independence that allows a policy of reserve build-up without any adverse monetary implications. Sterilisation has been used successfully so far in India and limits to sterilisation are yet to be reached.

7.124 The need for raising domestic absorption is well recognised and the Tenth Plan document already envisages a current account deficit of 2.8 per cent of GDP to attain a growth target of about 8 per cent. In the context of the Tenth Plan requirements, current levels of reserves and capital flows appear to be inadequate. Even if large capital flows materialise in future to meet the financing gap of 2.8 per cent of GDP as envisaged in the Tenth Plan document, the flows need to be regulated so that the CAD does not expand beyond the sustainable level. Hence, even though expanding absorption of foreign capital is a major policy challenge in the short-run, the overall medium to long-run policy strategy demands that the CAD be necessarily maintained within the sustainable level. This has been the most important lesson from the balance of payments crisis in 1991. Rather than engendering real appreciation, other counter-cyclical policies can be applied to revive aggregate demand, which in turn can improve absorption of foreign capital.

7.125 Monetary policy has already been eased to attain the objective of business cycle stabilisation without sacrificing the overriding inflation objective. The degree of manoeuvrability in fiscal policy is not very high because of the extent of fiscal imbalances prevailing today in India. During the phase of global slowdown, exchange rate appreciation could weaken exports and thereby have implication for external sector sustainability. The 'Dutch disease' problem is at best a very distant reality for India. Real appreciation has been prevented both through reserves build-up and sterilisation (the former preventing nominal appreciation and the latter preventing higher inflation). Excessive consumption/investment has been prevented by maintaining the CAD within sustainable levels. Thus, both the channels through which the 'Dutch disease' can spread, have been effectively regulated and their impact on the economy has been contained. With stronger recovery in demand, the surplus condition created by strong growth in remittances and software exports as well as capital flows would be absorbed automatically, reducing the scope for any Dutch disease effect and the need for any larger than desirable level of reserve build-up.

V. CONCLUDING OBSERVATIONS

7.126 The external sector reform programme initiated in the wake of the balance of payments crisis of 1991 was all encompassing. Even though the reforms were largely crisis led, the policy initiatives were unique in terms of their gradual, cautious and country specific approach. As against balance of payments problems of varying intensities experienced during 1956 – 1991, India's balance of payments position strengthened over the 1990s even as the period coincided with the liberalisation of external account, external currency crises and domestic political uncertainties.

7.127 Prudent exchange rate management, low current account deficit, steady flow of non-debt creating capital flows, particularly in the form of FDI, a significant reduction in the external debt to GDP ratio and containment of short-term debt to manageable and prudent limits have been some of the positive outcomes of policy reform in the external sector. Resilience of the external sector has helped India successfully avert the contagion effects of the East Asian crisis.

7.128 There are, however, a few areas, which require further efforts. India's competitiveness in exports would require to be strengthened to achieve a sustained export growth of at least 12 per cent per annum in order to achieve the medium-term goal of increasing India's share in world exports to 1 per cent by 2006-07. India also needs to make the transition from exports of labour-intensive low technology goods to

a wider variety of goods, including technology intensive goods. India's tariff levels continue to be high; accelerated pace of reduction of tariffs and removing the constraints on the small-scale industries would be conducive to industrial growth and exports. Rapid growth in exports would also require addressing the domestic constraints of supply bottlenecks and inadequate infrastructure.

7.129 A sustained surge in capital flows in the recent past has implications for monetary and inflation management although, the Reserve Bank has so far been able to sterilise the monetary impact of foreign exchange reserves through large open market sales of government securities. The financial cost of additional reserve accretion in the recent period is low.

7.130 There has been a debate that high accretion to forex reserves has resulted in a substantial output loss in the 1990s. It needs to be recognised, however, that the steady growth path is functionally related more to macroeconomic constraints of saving and investment than to the reserve management policy *per se*. The reserve management policy, coupled with the exchange rate management and monetary policy pursued by the Reserve Bank has created an atmosphere of softer interest rate regime, which is conducive to higher economic growth. In addition, the recent policy initiatives have created an investment atmosphere where foreign investment supplements domestic investment, which in a medium-term perspective would ensure a higher growth trajectory.

