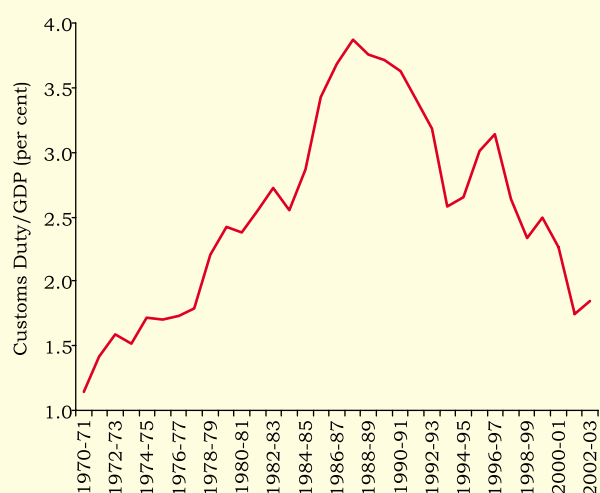


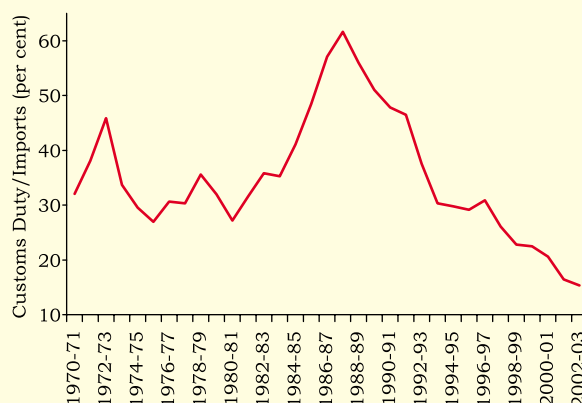
INTERNATIONAL TRADE DYNAMICS

Chart IV.2 : Customs Duty as Percentage of GDP



Source: Handbook of Statistics on the Indian Economy, RBI.

Chart IV.3 : Customs Duty Collection as a Percentage of Imports



Source: Handbook of Statistics on the Indian Economy, RBI.

4.37 Non-tariff barriers are generally considered less desirable than tariffs. The most common non-tariff barriers are the restrictions or prohibitions on imports maintained through the import licensing requirements. In the Indian context, for several decades QRs on imports of a wide range of products (mainly consumer goods) were justified for balance of payments reasons under Article XVIII-2(b) of the GATT. Out of nearly 5,000 Harmonised System Tariff lines at the 6-digit level, about 80 per cent were subject to some form of import licensing restrictions as in mid-1991 (Acharya, 1999). With the external

sector gathering strength, along with a reduction in tariffs, India has been following a consistent policy for gradual removal of restriction on imports since 1991. In the initial phase of reforms in 1991-92, about 3,000 tariff lines, covering raw materials, intermediates and capital goods, were freed from licensing restrictions. Tariff line-wise import policy at 10 digit level of Harmonised System (HS)-International Trade Classification (ITC) was first announced in 1996 wherein 6,161 tariff lines out of a total number of 10,202 lines were freed. The share of unrestricted products (tariff lines) under imports

Table 4.18: Collection Rates for Selected Import Groups*

Commodity group	(Per cent)												
	1990-91	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98	1998-99	1999-00	2000-01	2001-02	2002-03
1	2	3	4	5	6	7	8	9	10	11	12	13	14
Food products	47	27	12	19	22	23	19	16	15	15	31	40	30
POL	34	31	31	36	31	30	32	29	29	23	16	10	11
Chemicals	92	82	71	52	44	44	49	37	34	36	38	29	29
Man-made fibres	83	63	45	18	18	36	36	36	49	64	49	31	32
Paper & newsprint	24	23	18	13	11	8	11	13	11	9	8	6	7
Natural fibres	20	21	20	14	9	12	13	17	22	24	18	8	10
Metals	95	110	97	69	53	52	45	44	51	55	48	36	36
Capital goods	60	64	53	31	38	33	39	41	42	36	36	28	24
Others	20	14	13	10	11	13	14	15	11	12	12	9	9
Non-POL	51	49	39	28	29	28	31	27	23	22	23	19	17
Total	47	44	37	30	29	29	31	27	23	22	21	16	15

* Collection rate is defined as the ratio of realised import revenue (including additional customs duty/countervailing duty (CVD), and special additional duty) to the value of imports of a commodity.

Source: 1. Economic Survey, Government of India, Various Issues.
2. Ministry of Commerce and Industry, Government of India.

Table 4.19: Different Types of Non-Tariff Barriers on India's imports, 1996 to 2003*
(Number of tariff lines, 10 digit level#)

Type of NTB	1996	1997	1998	1999	2000	2001	2002	2003
1	2	3	4	5	6	7	8	9
Prohibited	59	59	59	59	59	59	52	52
Restricted	2,984	2,322	2,314	1,183	968	479	554	484
Canalised/STE	127	129	129	37	34	29	33	32
SIL	765	1,043	919	886	226	—	—	—
Free	6,161	6,649	6,781	8,055	8,854	9,582	11,032 ##	11,103
Total	10,096	10,202	10,202	10,220	10,141	10,149	11,671	11,671

* As on April 1.

As per Harmonised System of India Trade Classification, HS-ITC classification of export & import.

This includes 148 items with conditions.

Note: 1. STE : State Trading Enterprises.

2. SIL : Special Import License.

3. — : Nil.

Source: 1. Economic Survey, Government of India, 2001-02.

2. Ministry of Commerce and Industry, Government of India.

increased to more than 95 per cent in 2003 from about 61 per cent in 1996 (Table 4.19). Action has been completed on removal of restriction on tariff lines, notified under the WTO cover. QRs are, however, still being maintained in about 5 per cent of tariff lines as permissible under Articles XX and XXI of GATT on the grounds of health, safety, moral conduct and essential security.

4.38 There has been a steady decline in both nominal and effective rates of protection. Although there has been a significant decline in average tariff rates, the dispersion of tariff has not declined enough. Unlike major tariff liberalisation initiatives

in East Asia and Latin American countries due to regional trade agreements, it may be noted that trade liberalisation in India has mainly been the result of its own unilateral initiative rather than brought about by multilateral trade commitments or regional trade agreements. In fact, in most items, India's customs tariff rates are at present significantly lower than the corresponding "bound" rates stemming from obligations undertaken in the WTO. In contrast, multilateral commitments and regional trade initiatives appear to have played an important role in complementing domestic policy initiatives in the elimination of QRs in consumer goods especially since the mid-1990s (Table 4.20).

Table 4.20: MFN Bound and Applied Tariff Rates for India under the WTO

	Binding coverage	Simple average (Per cent)	Maximum ad valorem	Last year of implementation	Duty-free (Per cent)	Dutiable (Per cent)			
						Total	Non ad valorem	International peaks	
1	2	3	4	5	6	7	8	9	
MFN bound tariffs									
All products		73.8	49.8	300.0	2005	2.1	71.7	5.3	65.2
Agricultural products		100.0	114.5	300.0	2004	0.0	100.0	0.3	98.2
Non-Agricultural products		69.8	34.3	150.0	2005	2.5	67.3	6.1	60.1
	Year	Total tariff lines (Number)	Simple average	Maximum	Duty-free	Dutiable (Per cent)			
				(Per cent)		Total	Non ad valorem	International peaks	
MFN applied tariffs									
All products	2001	5516	31.4	210.0	1.1	98.9	5.2	86.9	
Agricultural products	2001	745	37.0	210.0	2.6	97.4	0.3	87.0	
Non-Agricultural products	2001	4771	30.5	105.0	0.8	99.2	6.0	86.9	

Source: World Trade Report, WTO, 2003.

III. STRUCTURE AND COMPOSITION OF INDIA'S EXPORTS

4.39 The changing structure of India's exports throws some interesting light on both the demand pattern and supply factors that are increasingly influencing India's exports and the manner in which its production structures, institutions and policies are responding to it. Although in terms of value, exports from India account for less than one per cent of global exports, as per the World Investment Report, 2002, UNCTAD, it ranks among the top 15 nations in terms of export gains during 1985-2000. The nature and extent of the export performance, however, need to be assessed not only by India's share in global exports but also with regard to its structural pattern, compositional shift and competitiveness. India's merchandise exports are predominated by the manufacturing sector which accounted for more than three-fourth of its total exports during the 1990s. There has, however, been considerable re-orientation of relative importance of products within the manufacturing sector. The main drivers within the manufactured product groups were chemicals and allied products, engineering goods, ready-made garments, textile yarn, fabrics, made-ups, and gems and jewellery.

The importance of primary products in the export basket has witnessed a steady decline over the years and especially since the 1990s whereas petroleum products exports have shown a dramatic rise since 2000-01 (Table 4.21).

4.40 Despite some diversification of manufacturing goods in the recent period, the top ten export items of India account for about three-fifths of total exports. Except for 'marine products', none of these ten major export items belong to the category of primary products. Interestingly, the USA features as export destination for all of these major products and the East Asian countries and China, appear to be the main competitors to most of India's major export items in the destination countries (Table 4.22).

4.41 Although the opening up of the Indian economy since the early 1990s provided an impetus for higher growth for most export commodities, some products gained more than the others. Export products like iron and steel, petroleum products and pharmaceuticals gained both in terms of growth rate as well as share in the export basket. On the other hand, there were products such as, cotton, leather, tea and readymade garments that lost out in the export market in terms of export share (Table 4.23).

Table 4.21: Structure of India's Exports

Items	1990-91	1995-96	2002-03	1990-91	1995-96	2002-03
	(US \$ billion)			(Share in per cent)		
1	2	3	4	5	6	7
Primary Products	4.3	7.3	8.3	23.8	22.8	15.8
Agriculture and Allied Products	3.3	6.1	6.4	18.5	19.1	12.2
Rice	0.3	1.4	1.1	1.4	4.3	2.1
Marine Products	0.5	1.0	1.4	2.9	3.2	2.6
Ores and Minerals	1.0	1.2	1.9	5.3	3.7	3.6
Iron Ore	0.6	0.5	0.9	3.2	1.6	1.6
Others	0.4	0.7	1.0	2.0	2.1	2.0
Manufactured Goods	13.0	23.7	38.4	71.6	73.9	72.7
Leather and Manufactures	1.4	1.8	1.8	8.0	5.5	3.4
Chemicals and Allied Products	1.3	2.4	4.7	7.2	7.4	9.0
Engineering Goods	2.2	4.4	8.4	12.4	13.8	15.9
Readymade Garments	2.2	3.7	5.4	12.3	11.6	10.2
Textile Yarn, Fabrics, Made-ups, etc.,	1.5	3.5	4.9	8.5	11.1	9.4
Gems and Jewellery	2.9	5.3	8.9	16.1	16.6	16.8
Petroleum Products	0.5	0.5	2.4	2.9	1.4	4.6
Others	0.3	0.6	3.6	1.7	1.8	6.9
Total Exports	18.1	31.8	52.7	100.0	100.0	100.0

Source: Directorate General of Commercial Intelligence and Statistics, Government of India.

Table 4.22: India's Leading Exports

Commodity	Export Share (Per cent)			Destination	Major Competitors
	1990-91	1995-96	2002-03		
1	2	3	4	5	6
1. Gems and Jewellery	16.1	16.6	16.8	USA (36.6), Hong Kong (19.2) Belgium (11.5);	Israel Belgium China (studs), Italy (plain gold) Thailand (gemstones)
2. Readymade Garments	12.3	11.6	10.2	USA (31.3), UK (8.9), Germany (7.7), UAE (7.0), France (6.8)	China, Korea, Taiwan, Indonesia, Thailand, Malaysia, Bangladesh
3. Basic Chemicals, Pharmaceuticals and Cosmetics	6.8	6.8	8.3	USA (14.1), Germany (5.6), China (4.4), UK (3.7), UAE (2.8)	China, Brazil (in castor oil)
4. Cotton Yarn, Fabrics, Made-ups etc.	6.4	8.1	6.2	USA (18.4), Korea (5.4), UK (4.7), Italy (4.6), Bangladesh (4.6)	China, USA, Australia (for yarn and made-ups), China, Pakistan, Bangladesh (for fabrics)
5. Petroleum Products	2.9	1.4	4.6	NA	NA
6. Machinery and Instruments	3.8	2.6	3.5	USA (13.9), Germany(7.5), UAE (6.8), UK (5.8), Nigeria (3.2)	Germany, Japan, Italy, China, Taiwan, Korea
7. Iron and Steel	0.9	2.2	3.4	China (27.5), USA (15.8), UAE (4.9), Bangladesh (3.7), Taiwan (3.5)	Indonesia, Korea, Malaysia, Australia, Brazil, South Africa
8. Manufactures of Metals	2.5	2.6	3.3	USA (23.6), UAE (10.8), UK (9.9) Germany (3.6),	Russia, South Africa, Korea
9. Marine Products	2.9	3.2	2.6	USA (27.9), Japan (22.6), China (7.6)	Indonesia, Thailand, Vietnam, Bangladesh
10. Man-made yarns, Fabrics, Made-ups etc.	1.2	2.4	2.5	UAE (19.7), Saudi Arab (5.3), Turkey (5.2), UK (4.7), USA (4.7)	Korea, China, Mexico, Bangladesh, Pakistan

N A: Not Available.

Note : Figures in parenthesis indicate the share of exports, as on 2002-03, directed to the respective countries in total exports of that commodity.

Source : Directorate General of Commercial Intelligence and Statistics, Government of India.

4.42 The export basket can be categorised into primary commodities (Group I), manufactures based on labour and natural resources (Group II), manufactures characterised by low technology intensity (Group III),

Table 4.23: Major Export Gainers and Losers during the 1990s

Item	Share in India's Exports		Growth rate 1990-91 to 2002-03@
	1990-91	2002-03	
1	2	3	4
Gainers			
Primary & Semi-Finished Iron & Steel	0.6	3.0	25.2
Plastic & Linoleum	0.6	2.2	21.4
Manmade Yarn, Fabrics, Madeups etc.	1.3	2.5	15.8
Electronic Goods	1.3	2.2	14.1
Petroleum Products	2.9	4.6	13.6
Drugs, Pharmaceuticals & Fine Chemicals	3.1	4.7	13.1
Losers			
Cotton Raw including Waste	2.6	0.0	-27.6
Finished Leather	5.2	0.9	-5.4
Tea	3.3	0.6	-4.7
Footwear of Leather	2.8	0.8	-1.7
Iron Ore	3.2	1.6	3.3
Readymade Garments: Man-made Fibre	2.5	1.3	3.8

@ Growth rate of exports in US dollar terms.

Note : In order to have reasonable comparative analysis, commodities having an export share of 2 percent or more during 2002-03 were taken to judge the top gainers. On the other hand, only those items having an export share of 2 per cent or more in 1990-91 were analysed so as to assess the loss of market shares.

Source : Directorate General of Commercial Intelligence and Statistics, Government of India.

Table 4.24: Technology Intensity of India's Exports, 1980-2000

(Percentage of total non-oil exports)

Commodity Group	1980	1990	2000	Commodity Group	1980	1990	2000
1	2	3	4	1	2	3	4
Group I (Primary commodities)	40.9	26.6	18.9	Group IV (Medium technology intensity)	7.0	6.6	6.6
Food	25.2	14.7	12.9	Rubber and plastic products	0.6	1.1	1.3
Non-Ferrous metals	0.2	0.5	0.7	Non-electrical machinery	3.4	3.2	2.6
Other primary commodities	15.5	11.4	5.3	Electrical machinery (excl. semiconductors)	1.5	1.2	1.5
Group II (Manufactures based on labour and natural resources)	38.5	51.1	52.6	Road motor vehicles	1.6	1.1	1.2
Textiles	15.3	12.8	14.2	Group V (High technology intensity)	5.1	9.3	11.7
Clothing	7.9	14.9	14.5	Industrial chemicals	2.8	5.1	7.2
Footwear, leather and travel products	6.3	6.8	3.6	Pharmaceuticals	1.5	2.7	3.0
Wood and paper products	0.3	0.1	0.2	Computers and office equipment	0.0	0.6	0.4
Paper, print and publishing	0.2	0.2	0.5	Communication equipment and semiconductors	0.2	0.4	0.4
Non-metallic mineral products	8.5	16.4	19.7	Aircraft	0.0	0.0	0.1
Group III (Manufactures characterised by low technology intensity)	5.7	4.8	6.6	Scientific instruments	0.6	0.4	0.6
Iron and steel	1.1	1.7	3.2	Other manufactures *	2.7	1.6	3.6
Fabricated metal products	2.9	2.0	2.5				
Simple transport equipment	1.6	0.9	0.6				
Ships and boats	0.0	0.2	0.2				

* Other manufactures includes sanitary and plumbing products; toys and sporting goods; office and stationary supplies; works of art; jewellery and musical instruments.

Source: Trade and Development Report, UNCTAD, 2003.

medium technology intensity (Group IV), and high technology intensity (Group V).¹ Disaggregating India's exports according to this classification shows that although the share of other low and high technology intensive exports has improved since the 1980s, the bulk of the structural shift has been concentrated in labour and natural resource based manufactures (Group II) (Table 4.24). As a result, the products wherein India has the maximum presence in international market in terms of export share continued to be the Group I and II commodities (such as, spices, marine products, precious and semi-precious stones, textiles, etc.) during most of the 1990s. Data for recent years, however, indicate that the commodity structure of India's exports has slowly begun to shift towards higher technology intensive manufactures.

4.43 In contrast to India, the improvement in technology intensity of exports has been almost dramatic for most of the East Asian countries and to some extent also for China (Table 4.25). The areas in which South East Asian countries achieved their highest export growth during the 1980s were typically labour intensive, relatively low technology products

such as textiles, clothing, toys, shoes and sports goods. Subsequently, during the 1990s, they graduated up to somewhat higher technology consumer goods and then to even higher technology and capital intensive sectors such as capital goods and petro-chemicals.

4.44 Despite the slow compositional changes in India's exports, the index of structural similarity (SS)², constructed to compare the relative manufacturing base of the leading exporters and the destination countries, indicates that the structure of India's exports and the manufacturing base of leading developed countries are highly divergent. This suggests that there is immense potential for India's exports to meet the demand emanating from these countries, if given sufficient thrust (Table 4.26).

4.45 The preceding discussions on the structure and composition of India's exports indicate considerable improvements since the initiation of the reform process. At the same time, it is also clear that export performance of the country has not been able to fully utilise the potentials. Reservations for the small scale industries, high transaction costs and low levels

¹ Classification of exports by the OECD and the United States National Science Foundation (and also used by the UNCTAD) based on SITC codes that differentiates technology intensity using R&D expenditure as a share of turnover as the indicator.

² The index value, suggested by Krugman (1991), is the sum of the absolute differences between the home country and the foreign country in the share of the different sectors of manufacturing industry in total exports of manufactures or in total manufacturing value-added. This measure varies between zero and two; a value of zero indicates identical sectoral composition of the two economies, and a value of two indicates complete dissimilarity of export structure.

Table 4.25: Technology Intensity of Exports: 1980-2000

(Percentage of total non-oil exports)

Country	Year	Group I	Group II	Group III	Group IV	Group V
1	2	3	4	5	6	7
Argentina	1980	76.0	8.7	3.1	5.4	6.7
	1990	68.2	10.0	8.1	5.4	8.2
	2000	59.9	8.8	4.9	14.9	11.1
Brazil	1980	60.3	9.4	6.4	15.0	8.3
	1990	46.3	12.7	13.5	15.6	11.0
	2000	39.8	12.9	8.6	19.3	18.8
China	1980	NA	NA	NA	NA	NA
	1990	20.4	38.9	5.9	13.7	14.8
	2000	8.7	33.2	8.4	15.7	26.2
Egypt	1980	69.6	26.5	1.9	0.1	1.7
	1990	39.8	44.8	6.7	1.2	7.0
	2000	36.3	36.9	5.3	5.5	13.1
Korea	1980	9.9	42.5	19.1	8.2	16.8
	1990	5.5	33.3	14.7	13.3	27.9
	2000	4.0	14.8	11.5	21.5	46.3
India	1980	40.9	38.5	5.7	7.0	5.1
	1990	26.6	51.1	4.8	6.6	9.3
	2000	18.9	52.6	6.6	6.6	11.7
Malaysia	1980	74.9	6.7	0.7	3.0	14.3
	1990	33.7	12.3	3.2	8.5	39.0
	2000	10.3	9.3	1.9	10.9	66.1
Mexico	1980	40.6	8.7	2.2	19.4	24.9
	1990	30.3	7.8	7.5	35.8	16.5
	2000	7.5	12.8	4.5	43.6	29.3
Taiwan Province of China	1980	10.7	40.6	8.6	12.3	18.6
	1990	6.7	28.3	10.3	18.7	27.5
	2000	3.6	14.1	10.5	19.5	48.2
Turkey	1980	70.6	22.2	1.4	3.0	2.4
	1990	30.6	42.0	13.6	4.9	8.0
	2000	16.9	44.2	9.9	16.4	10.3

NA: Not Available.

Source: Trade and Development Report, UNCTAD, 2003.

of factor productivity are some of the factors, which are often cited as reasons for less than satisfactory

export performance by the country. These issues are discussed in the following sub-sections.

Table 4.26: Structural Similarity Indices for Exports of Manufactures and Manufacturing Value-Added for Select Economies: 1980-81 and 1997-98

Country	Structural Similarity with											
	United States				Japan				Germany			
	Exports		Value-added		Exports		Value-added		Exports		Value-added	
	1980-81	1997-98	1980-81	1997-98	1980-81	1997-98	1980-81	1997-98	1980-81	1997-98	1980-81	1997-98
1	2	3	4	5	6	7	8	9	10	11	12	13
China	1.14	0.89	0.68	0.62	1.31	0.90	0.61	0.57	1.08	0.99	0.60	0.60
India	1.26	1.27	0.69	0.68	1.34	1.34	0.58	0.63	1.24	1.19	0.61	0.66
Korea	1.06	0.53	0.61	0.38	0.90	0.52	0.52	0.36	0.94	0.58	0.59	0.31
Malaysia	1.32	0.71	0.71	0.67	1.19	0.71	0.59	0.68	1.31	0.88	0.72	0.61
Mexico	0.90	0.47	0.91	0.80	0.93	0.45	0.82	0.74	0.91	0.50	0.85	0.73
Philippines	1.30	0.92	0.75	0.67	1.35	0.93	0.77	0.63	1.25	1.05	0.79	0.71
Singapore	0.74	0.70	0.47	0.57	0.63	0.36	0.47	0.57	0.72	0.89	0.46	0.51
Taiwan Province of China	1.08	0.57	0.66	0.64	0.97	0.57	0.55	0.55	1.05	0.67	0.59	0.52
Turkey	1.59	1.21	0.74	0.73	1.55	1.24	0.62	0.67	1.50	1.14	0.66	0.74

Source: Trade and Development Report, UNCTAD, 2003.

Reservation of the Small-Scale Industries and Export Growth

4.46 Exports by small scale industries (SSIs) form an important component of India's exports. The SSI sector exhibited an impressive export performance during the 1990s. The relative contribution of SSIs to India's exports had gradually gone up from 15.9 per cent during the 1970s (1973-74 to 1979-80) to 25.6 per cent during the 1980s and further to a peak of 36.7 per cent in 1993-94 (Table 4.27). At present, direct exports by the SSI sector account for nearly 35 per cent of total exports. Besides direct exports, it is estimated that small-scale industrial units contribute around 15 per cent to exports indirectly. SSIs account for nearly 45 per cent of the manufactured exports from India of which 52 per cent pertain to non-traditional product (Government of India, 2001).³ Exports from SSI sector have grown mainly on account of garments, leather, plastic products, chemicals and gems and jewellery (Table 4.28). The product groups where the SSI sector dominates in terms of exports are sports goods, readymade garments, woollen garments and knitwear, plastic products, processed food and leather products.

4.47 The SSI sector has been provided protection in the form of reservation of items, purchase preferences and several fiscal incentives. The reservation policy was initiated with the twin objectives of ensuring increased production of consumer goods in small-scale sector and expanding employment opportunities through setting up of small scale units. Non-SSI units were allowed to manufacture reserved items only with an additional condition of export obligation up to 50 per cent of their production.

4.48 The policy of SSI reservation has, however, denied successful SSIs to expand and achieve economies of scale and upgrade technology. As a result, Indian manufacturing industry has been unable

Table 4.27: Export Performance of SSI Sector

1	(Per cent)	
	1981-82 to 1989-90	1990-91 to 2000-01
2	3	
Growth in Total Exports	17.7	20.2
Growth in SSI Exports	19.6	22.9
Share of SSI in total Exports	25.6	33.7
Contribution of SSI in Export Growth	19.7	36.7

Note : Growth rates are calculated by using value of total and SSI exports in terms of Rupees.

Source: 1. Handbook of Industrial Policy and Statistics, Government of India.
2. Handbook of Statistics on the Indian Economy, RBI.
3. SIDBI Report on SSI Sector.

to improve the technology content of its product on a sustained basis. This is clearly evident from the earlier analysis of exports by categorising them in terms of their technology intensity.

4.49 The increasing openness of the economy has posed a challenge before domestic SSI sector on account of cheaper imports and entry of new producers. Increasing competitive pressure and required technological up-gradation have induced de-reservation in a phased manner to enable the SSI sector to achieve economies of scale benefits. Despite de-reservation, 675 items were still reserved, as at the end of May 2003, for exclusive manufacture in SSI sector as against 836 items reserved for SSIs in 1989. This process of SSI de-reservation is a step in the right direction and needs to be accelerated to foster scale economies, enhance efficiency and promote competitiveness.

4.50 SSI reservation also affected entrepreneurial skills, manufacturing production and employment growth. This handicap has affected the growth of exports from this sector, thereby impeding the growth potential of some of the most dynamic export products

Table 4.28: Growth in Exports in respect of Selected Industry Groups with Reserved Items

Major Industry Group	No. of reserved items (As on May 2003)	Export Growth (Per cent)	
		1991-95	1995-2002
1	2	3	4
Mechanical engineering	183	12.2	11.1
Rubber, glass, paints, enamels and products	48	19.9	7.5
Plastic Products	13	43.1	12.5
Chemicals, organic chemicals and Drugs and Pharma.	113	11.7	11.4
Sports Goods	7	10	0.8
Food and allied Products	12	18.7	4.5

Source: 1. Handbook of Statistics on the Indian Economy, RBI.
2. Small Industries Development Organisation.

³ Government of India (2001), Handbook of Industrial Policy and Statistics 2001, Office of Economic Adviser, Ministry of Commerce and Industry.

of India. Deregulation of SSIs may unleash this structural constraints through better economies of scale (Mohan, 2002).

Competitiveness of Exports

4.51 Exports of a country are deemed to be competitive if the country is able to sell its products at a lower or same price and earn the same return as its competitors. Competitiveness could emanate from favourable endowment base in the economy, lower cost consideration or from better quality of the commodity produced. Variables such as remuneration of factors of production, exchange rate, productivity - through the use of better technical skills and human resource development, as also economies of scale have a large influence on the extent of competitiveness of exports in the globalised world. Institutional and policy

mechanisms that impart flexibility to the economy in shifting the resources to their most productive uses also play a pivotal role in enhancing the competitiveness. Finally, with growing market for differentiated products, other non-price factors such as quality and branding are also important factors contributing towards export competitiveness.

4.52 Analysis of competitiveness of manufactured exports, as measured by a menu of indicators, reveals that India has comparative advantage with respect to some key indicators, viz., real exchange rate, labour productivity and unit labour cost. In fact, the unit labour cost of manufacturing exports in India is one of the lowest among the developing countries. At the same time, productivity growth in India since the 1980s, unlike most Latin American countries, has outpaced the real wages in this sector (Table 4.29).

Table 4.29: Indicators Related to the International Competitiveness of Exporters of Manufactures for the year 2000

Country	Index (1980=100)						(Per cent)			
	Real US \$ exchange rate based on consumer price index ^a	Real US \$ exchange rate based on unit labour cost ^b	REER ^c	Nominal wage per worker [#]	Labour Productivity * [#]	Unit Labour Cost **	Real wages	Average annual growth of exports of manufacturing	Share of manufactures in total non-oil merchandise exports in 2000	Effective Market Growth @@ (1993-2002)
1	2	3	4	5	6	7	8	9	10	11
Argentina (1984-96)	47.7	23.3	66.7	240.5	50.5	101.9	73.5	13.9	40.1	6.7
Brazil (1985-95)	50.9	39.9	43.3	152.2 [#]	114.8 [#]	96.3	137.4	8.6	60.2	5.9
China (1980-99)	NA	NA	343.2	NA	142.3	NA	NA	27.4 *	91.3	6.8
Egypt (1980-97)	92.4	148.7	NA	146.1	158.8	42.5	69.3	11.8	63.7	6.3
India	215.8	300.1	215.6	141.3	279.9	52.8	145.9	12.0	81.1	6.8
Indonesia (1980-99)	331.3	285.5	332.2	114.7	228.2	81.7	188.0	24.8	76.5	7.0
Korea	129.1	130.4	129.0	533.5	459.5	72.1	329.8	12.1	96.0	7.5
Malaysia	187.5	160.2	151.8	241.1	255.2	84.9	216.5	22.1	89.7	7.1
Mexico (1984-2000)	78.2	67.0	73.9	213.4	113.0	90.2	100.7	23.8	92.5	9.0
Philippines (1980-97)	120.6	105.3	118.9	263.2	202.6	80.5	163.0	17.5	92.9	7.4
Taiwan Province of China (1980-96)	86.7	49.7	91.4	550.7	205.9	121.0	248.6	12.9	96.4	7.1
Thailand (1982-94)	108.5	75.4	171.3	141.6	98.6	140.9	105.9	30.4	79.8	7.1
Turkey	139.3	184.6	108.8	161.7	197.0	54.5	107.8	17.4	83.1	6.0

a. Index of bilateral exchange rate with the US \$ multiplied by the ratio of index of US consumer prices to the index of domestic consumer prices; and index number higher than 100 indicates a real depreciation of the total currency.

b. Ratio of domestic unit labour costs to the United States unit labour costs.

c. Based on relative consumer prices.

In US dollar.

* Real value added per worker calculated by deflating value added (in US \$) per worker by the GDP deflator.

** Ratio of nominal wages in manufacturing (deflated by CPI) to value added in manufacturing (deflated by GDP deflator).

@@ Weighted average of import volume growth in the country's export market.

NA: Not Available.

Source: 1. Trade and Development Report, UNCTAD, 2003.

2. Global Economic Prospects, World Bank, 2004.

4.53 The limit to export growth is often set by the extent of the world import volume growth. In this context, Effective Market Growth (EMG), which is a weighted average of import volume growth in the countries' export markets, provides an useful measure of the demand growth emanating from the export destinations of the developing countries. Cross-country analysis reveals that India is at par with other developing countries in this regard.

4.54 Empirical evidence suggests that no single indicator provides an unambiguous assessment of competitiveness. One of the commonly used approaches is the Revealed Comparative Advantage (RCA)⁴ which evaluates an economy's export share in a given sector relative to its overall export share. Information based on export data for India's four major exporting items viz., iron and steel, chemicals, textiles and clothing, for the year 1990 and 2000 reveals that India has been able to successfully consolidate its position in international markets in all these export sectors. Moreover, in sectors, such as, 'iron and steel' and 'chemicals', exports from India have made significant strides since the opening up of the economy. In fact, for these sectors, India appears to have a relatively more dominant presence in the world market vis-à-vis comparable countries such as China and Korea (Table 4.30).

4.55 Another measure of export competitiveness is the Competitive Industrial Performance index. This index measures the ability of countries to produce and export manufactures competitively and is constructed from four indicators: manufacturing value-added per capita, manufactured exports per capita, share of medium and high technology products in manufacturing value-added, and share of medium and high technology products in manufactured exports. The first two indicators provide information on

industrial capacity, while the other two show the technological complexity and industrial upgrading of a country. The index recently constructed by the Asian Development Bank for a total of 87 economies places India at the middle level (Table 4.31).

4.56 Global Competitiveness Report, 2003-04 of the World Economic Forum, encompassing 102 countries, has published two indices viz., (i) Growth Competitiveness Index (GCI) (measuring the capacity of the national economy to achieve sustained economic growth over the medium term) made up of three factors, viz., technological capacity, quality of public institutions, and quality of macroeconomic environment, and (ii) Business Competitiveness Index (BCI) (which examines the microeconomic bases of a nation's GDP per capita that is sustainable in the long run) consisting of two factors, viz., the degree of company sophistication and the quality of the national business environment. While the GCI was developed by Sachs and McArthur, the BCI is mainly based on the Porter framework (1990), known as "competitiveness diamond", where the idea of competitive advantages as opposed to comparative advantage is introduced. Even this measure shows that India is relatively well-placed at the middle level (Table 4.32).

4.57 Transaction costs, which also impact upon competitiveness, constitute another crucial determinant in international movements of goods and factors. Transaction costs are expense which do not enter directly in the physical process of production but are incurred at the pre and post-production stages, and arise out of the several procedural complexities associated with administrative processes, availability of finance and transportation problems. Exporters incur transaction costs in terms of time and/or in the form of monetary resources in the export consignment

Table 4.30: Revealed Comparative Advantage of Select Manufacturing Sectors: Comparison of India, China and Korea

Country	Year	Iron and Steel	Chemicals	Textiles	Clothing
1	2	3	4	5	6
India	1990	0.4	0.8	4.0	4.4
	2000	1.4	1.0	5.3	4.3
China	1990	0.6	0.7	3.7	4.8
	2000	0.5	0.5	2.4	4.0
Korea	1990	1.3	0.3	2.3	2.9
	2000	1.4	0.6	2.2	0.7

Source: International Trade Statistics, WTO, 2002.

Table 4.31: Competitive Industrial Performance Index

Country	Rank		Index Value	
	1998	1985	1998	1985
1	2	3	4	5
China	37	61	0.13	0.02
India	50	50	0.05	0.03
Indonesia	49	65	0.05	0.01
Korea	18	22	0.37	0.25
Malaysia	22	30	0.28	0.12
Philippines	25	45	0.24	0.04
Thailand	32	43	0.17	0.06

Source: Asian Development Outlook, Asian Development Bank, 2003.

⁴ RCA is measured as an economy's share of total world exports in a given sector divided by the economy's average export share in all manufacturing sector.

Table 4.32: Cross-Country Ranking of Some Competitiveness Indices

Country	Growth Competitiveness	Technology	Public Institution	Macro-economic environment	Business Competitiveness	Company Operations and Strategy Environment	Quality of National Business
1	2	3	4	5	6	7	8
Korea	18	6	36	23	23	19	25
Malaysia	29	20	34	27	26	26	24
Thailand	32	39	37	26	31	31	32
China	44	65	52	25	46	42	44
Philippines	66	56	85	60	65	48	74
Indonesia	72	78	76	64	60	62	61
India	56	64	55	52	37	40	36

Source: Global Competitiveness Report, World Economic Forum, 2003-04.

process. The procedural complexities identified consist of obstacles and difficulties associated with administrative processes, obtaining various licenses and refunds like duty drawbacks, sourcing of finance, transportation, etc. (Box IV.3).

4.58 In an attempt to estimate the magnitude of transaction costs of Indian exports, the Export-Import (EXIM) Bank of India conducted sample surveys in 1998 (of 111 firms covering 12 sectors) and 2003 (of 82 firms spread over 10 sectors). The study found that although transaction costs have declined in general between 1998 and 2003, they still continue to impose significant costs in certain sectors of Indian exports. Among the leading export sectors, the study finds that the incidence of transaction

costs is highest in textiles, followed by pharmaceuticals, chemicals and engineering goods. In textiles and pharmaceuticals sectors, delays in getting various refund constituted the major transaction costs for exporters. Firms in the engineering goods, chemicals, plastic industry, paper products and biotech suffered delays in obtaining various licenses and getting duty refunds. In the software sector, high costs of working capital loans and delays in outward remittances as also time over-runs in obtaining various licenses have led to high transaction costs. The study also found that most of the Indian firms incurred cost disadvantage in terms of bureaucratic procedures, economies of scale, interest rates, transportation facilities, custom duties and clearances. In this context, it may be

Box IV. 3

Transaction Costs in International Trade

Transaction costs are those expenses that do not enter directly in the physical processes of production of goods but arise mainly from the transfer of ownership. Transaction costs can be broadly divided into four areas: (i) costs of entering and retaining markets before the actual foreign trade has taken place - mainly information and communication costs; (ii) transportation and product adaptation costs - mainly freight, insurance and packaging (terminal) costs; (iii) monetary transaction costs- mainly bank fees for international money transactions and costs for protection against possible exchange rate, interest rate or price fluctuations; and (iv) statutory transaction costs - mainly customs tariffs, legal costs, non-tariff barriers such as import quotas or product and health standards, special export taxes or costs related to restrictions of the movement of capital flows.

Samuelson (1954) had argued that the existence of an international transfer problem depends critically on whether there is a home bias in consumption, and he showed explicitly how a home bias could be derived from transport costs. Limao and Venables (2001) find that transport costs rises by more than 50 per cent for landlocked countries and the level of

infrastructure development is an important variable in explaining differences in shipping costs. Obstfeld and Rogoff (1996) incorporated trade costs (transport costs plus tariffs, non-tariff barriers and possibly, other broader factors that impede trade) and showed that Samuelson's transfer problem analysis can be extended to a modern dynamic setting. In one of the most influential contributions in recent times, Obstfeld and Rogoff (2000) found that international trade costs in goods market⁵ could explain some of the major puzzles in international macroeconomics, viz., (i) home-bias-in-trade puzzle (wherein individuals have strong preference for consumption of their home goods), (ii) Feldstein-Horioka puzzle (OECD current account imbalances being small relative to saving and investment measured over any sustained period), (iii) home-biased portfolio puzzle (wherein investors overwhelmingly preferred to hold home equity assets), (iv) consumption correlation puzzle (consumption not being highly correlated across OECD countries), (v) purchasing power parity puzzle (the half-life of real exchange rate innovations being about 3-4 years), and (vi) exchange rate disconnect puzzle (why exchange rate are so volatile and so apparently disconnected from fundamentals).

⁵ Along with other factors such as elasticities, imperfect competition, wage price rigidities etc.

noted that as the duty rates fall, the need for refunds etc., will commensurately decline thereby bringing down the transaction cost.

Export Oriented Industries and Productivity

4.59 Export opportunities in the manufacturing sector perform a valuable role in developing the labour skills, technology, market experience and expertise which can move developing countries into a virtuous cycle of productivity. Empirical studies suggest that innovation and productivity are higher among export-oriented firms. The evidence for most Asian countries points towards a significant effect of trade liberalisation on productivity (Das, 2002). The evidence on the impact of trade liberalisation on the productivity performance for Indian industries, however, is mixed. This is particularly because estimates of productivity are critically contingent, *inter alia*, upon the underlying assumptions about the structure of the production function and the methodology of estimation. While Goldar and Kumari (2002) and Chand and Sen (2002) find positive impact of trade policy changes on productivity growth covering the period from the early 1970s to late 1990s, studies by the NCAER (2001) and Unni, *et al.* (2001) suggest a decline in productivity growth in the 1990s *vis-à-vis* the 1980s. A preliminary exercise, on the assumption of constant returns to scale, in a growth accounting framework, suggests a decline in total factor productivity growth (TFPG) of the manufacturing sector in the 1990s (Table 4.33). The decline in TFPG could be a reflection of underlying structural and cyclical factors (Das, 2003).

Among the structural factors, exit restrictions for labour and cumbersome bankruptcy procedures could have led to higher incidence of industrial sickness, adversely impacting upon the manufacturing TFPG. Furthermore, the cyclical downturn from the mid-1990s may have resulted in higher excess capacity and concomitantly, lower TFPG. At the sectoral level, however, there are evidences of improved TFPG for the exporting sectors *vis-à-vis* the non-exporting ones (Dholakia and Kapur, 2001; Unel, 2003).

4.60 Apart from TFPG, the role of factor (capital and labour) accumulation and productivity in the growth of manufacturing, particularly in the 1990s, needs to be placed in perspective. While capital intensity has increased during the 1990s, growth in capital productivity in overall manufacturing has declined during 1991-2000 *vis-à-vis* the previous decade. During the 1990s, growth in deflated fixed capital outweighed the growth in deflated value added in most of the respective industry groups. This has possibly led to a lower or negative capital productivity growth in majority of the industries during the 1990s. On the other hand, growth in labour productivity increased during the same period. Industry-wise analysis reveals that labour productivity growth witnessed an increase in respect of seven industry groups, while two sectors witnessed a rise in terms of growth of capital productivity (Table 4.34).

4.61 Summing up, India is relatively better placed than some of its competitors with respect to manufactured items traded with industrial countries.

Table 4.33: Total Factor Productivity Growth (TFPG) in Indian Manufacturing

Industry Group	TFPG (1980-90)	TFPG (1991-2000)
1	2	3
Food products and other food products	4.6	-2.0
Beverages, tobacco and related products	2.9	-1.8
Cotton textiles, Wool, silk and man-made fibre textiles, Jute and other vegetable fibre textiles (except cotton)	1.0	-6.2
Textile products (including wearing apparel)	4.7	-3.0
Wood and wood products, furniture & fixtures	0.6	3.0
Paper and paper products and printing, publishing and allied Activities	2.2	-5.1
Leather and leather & fur products	3.2	-1.7
Chemicals and chemical products except Products of Petroleum & coal	2.0	1.7
Rubber, plastic, petroleum and coal products	6.2	-13.7
Non-metallic mineral products	1.7	0.2
Basic metal and alloy industries	3.0	0.9
Metal products and parts (except machinery and Equipment)	-1.4	-1.4
Machinery and equipment other than transport equipment (industrial and electrical machinery)	2.6	-3.8
Transport equipment and parts	6.1	-2.3
Other manufacturing industries	1.2	7.8
Total Manufacturing	3.9	2.1

TFPG = Growth in GVA [Share of labour in GVA (Growth of Labour) + Share of Capital in GVA (Growth in Capital)].

Note: TFPG is estimated using growth accounting method using the variable of gross value added, workers, wages and fixed capital from the Annual Survey of Industries. Estimates are based on double-deflation method.

Table 4.34: Growth in Labour and Capital Factor Productivity

Industry Group	LPG		KPG	
	1980-90	1991-2000	1980-90	1991-2000
1	2	3	4	5
Food products and other food products	10.3	5.9	4.4	-4.2
Beverages, tobacco and related products	9.5	10.6	0.2	-4.8
Cotton textiles, wool, silk and man-made fibre textiles, Jute and other vegetable fibre textiles (except cotton)	4.7	3.4	-2.5	-11.4
Textile products (including wearing apparel)	8.3	2.8	3.0	-9.9
Wood and wood products, furniture & fixtures	6.2	12.7	-2.7	1.9
Paper and paper products and printing, publishing and allied Activities	6.4	4.6	2.2	-4.6
Leather and leather & fur products	5.1	5.1	3.5	-1.9
Chemicals and chemical products except POL & coal	5.6	8.7	0.5	1.2
Rubber, plastic, petroleum and coal products	10.7	3.1	9.7	-5.7
Non-metallic mineral products	8.8	6.9	-3.1	-6.9
Basic metal and alloy industries	8.3	7.0	3.1	-0.2
Metal products and parts (except machinery and Equipment)	3.3	4.9	0.2	-3.1
Machinery and equipment other than transport equipment (industrial and electrical machinery)	5.8	5.0	1.4	-6.1
Transport equipment and parts	6.9	9.1	4.7	-8.1
Other manufacturing industries	5.3	11.5	1.2	1.1
Total Manufacturing	6.5	7.8	1.3	-0.7

LPG : Labour Productivity Growth; KPG: Capital Productivity Growth.

Note: Value-added is deflated by using WPI and fixed capital is deflated by computing deflators for gross fixed capital formation as per the National Accounts Statistics data.

Labour productivity in the 1990s has grown faster than that in the 1980s in India. However, the policy of reservation for SSIs has affected export growth, manufacturing production and employment generation.

4.62 It is expected that the future export drivers for India will be textiles, engineering goods, including automobiles and capital goods and processed food items. Textiles have long been a traditional export item for India accounting for nearly one fifth of the total exports during the 1990s. With the phasing out of the Multi-Fibre Arrangement (MFA) and dismantling of quotas from January 1, 2005, the potential for India's textile exports is likely to increase significantly. India's advantage in textile production, which is labour intensive, lies in its competitive advantage in labour, raw materials including cotton and low import intensity. However, the textile industry has, to a large extent, been reserved for the small scale industry, with the entry of the organised sector not permitted until recently. This has led to fragmentation of the sector leading to lack of economies of scale, low productivity, weak quality control and technological obsolescence. To tap the potential, the textile industry requires significant technological upgradation, scale building and a shift in focus from low value fabric exports to high value apparels and garments.

4.63 In the recent period, exports of engineering goods particularly those of automobiles, including two-wheelers have increased significantly which in turn has resulted in increased exports of auto components. Apart

from low labour cost and adequate skill sets, the key driver for increase in automobile exports has been its low development cost. The rise in exports of auto-components can also be attributed to cost-cutting pressure by global manufacturers. The future penetration of automobile exports in the world market will crucially hinge on the availability of adequate infrastructure and orientation of the domestic industry to a global scale.

4.64 The exports of agricultural products generally displayed a relatively lower rate of growth, except for a brief period in the mid-1990s (1993-96). Nonetheless, in the recent years, sharp expansion was observed in exports of high value and processed agricultural products such as, fruits and vegetables, processed fruits, juices, and meat and meat preparation. Contemporaneously, the exports of traditional commodities such as, tea, coffee, rice, spices and oil meal have decelerated. India's agro-export performance has been disproportionately lower than its domestic production base. In recent period, India has emerged as a leading producer of many agricultural products in the world. For instance, India is the largest producer of coconut, arecanut, cashewnut, ginger, turmeric, black pepper, and the second largest producer of fruits and vegetables. The progress on the domestic production front has, however, not been translated into enhanced exports of these commodities.

4.65 For export expansion in the agro-processing sector, removal of the supply-side constraints such as infrastructure bottlenecks, including warehousing facilities, is needed. India can exploit the potential in these areas to her export

advantage if these domestic constraints are removed expeditiously. It is in this context, that the recent amendment to the Warehousing Corporations (Amendment) Bill, 2001, which, *inter alia*, enables Central Warehousing Corporation to set up warehouses abroad and also to enter into joint ventures assumes importance.⁶ Another major step taken in recent times with a view to giving a boost to agri-exports, is the setting up of Agriculture Export Zones (AEZs).⁷ State Governments have been assigned to identify specific products for end-to-end development for exports from a geographically contiguous area. Further, in the EXIM policy for 2003-04, emphasis has been placed on providing encouragement to “corporate sector with proven credentials to sponsor new zones or takeover of already notified zones or their part for boosting agri-exports”. These corporates will be providing services such as, pre and post harvest treatment and operations, plant protection, processing, packaging, storage and related research.

4.66 A National Agricultural Policy (NAP) was announced in July 2000 with the aim of attaining technologically, environmentally and economically sustainable growth rate in agriculture of over 4 per cent per annum. Further, the policy envisages achieving demand-driven growth catering to domestic and international markets, maximising the benefits from exports of agricultural products in the face of the challenges arising from economic liberalisation and globalisation. In the context

of India’s WTO commitments in general and removal of QRs in particular, the policy provides for promoting exports and commodity-wise strategies on imports and arrangements for protecting the growers from adverse impact of undue price fluctuations in the world markets. The policy also envisages protection to plant varieties through a *sui generis* legislation to encourage research and breeding of new varieties, particularly in the private sector, in line with the India’s obligations under TRIPS Agreements.

IV. STRUCTURE AND COMPOSITION OF INDIA’S IMPORTS

4.67 The structure of India’s imports has undergone change since the opening up of the Indian economy. In the post liberalisation phase, the ‘tolerance’ level of imports has undergone a significant upward revision in the face of greater avenues for foreign exchange inflows, thereby unshackling the hitherto dormant economic growth potential. With the move away from ‘import substitution’ and towards promotion of trade based on dynamic advantage, the policy distinction between essential imports and otherwise has gradually subsided. Commodity-wise analysis reveals that while petroleum still continues to have a dominant presence in India’s imports, capital goods and other intermediary products for export purposes have emerged as key items of imports in the 1990s (Table 4.35).

Table 4.35: Structure of India’s Imports

Items	1990-91			1995-96			2002-03		
	(US \$ billion)			(Share in per cent)					
1	2	3	4	5	6	7			
Bulk Imports	10.8	14.3	24.1	45.1	39.0	39.3			
Petroleum, Crude and Products	6.0	7.5	17.6	25.0	20.4	28.7			
Bulk Consumption Goods	0.6	1.0	2.4	2.3	2.7	3.9			
Edible Oils	0.2	0.7	1.8	0.8	1.9	2.9			
Other Bulk Items	4.3	5.8	4.1	17.7	15.8	6.7			
Fertilisers	1.0	1.7	0.6	4.1	4.6	1.0			
Non Ferrous Metals	0.6	0.9	0.6	2.6	2.5	1.0			
Metalliferrous Ores, Metal Scrap, etc.	0.9	0.8	1.0	3.5	2.2	1.6			
Iron and Steel	1.2	1.4	0.9	4.9	3.8	1.5			
Non-Bulk Imports	13.2	22.4	37.3	54.9	61.0	60.7			
Capital Goods	5.8	10.3	12.7	24.2	28.1	20.8			
Machinery except Electrical and Electronic	2.1	3.9	3.4	8.7	10.6	5.6			
Electrical Machinery except Electronic	0.9	0.4	0.6	3.9	1.1	1.0			
Electronic Goods	—	1.8	5.3	—	4.9	8.7			
Transport Equipment	0.9	1.1	1.8	3.9	3.0	2.9			
Project Goods	1.4	2.4	0.5	5.9	6.5	0.8			
Mainly Export Related Items	3.7	5.3	10.2	15.3	14.4	16.7			
Pearls, Precious and Semi-Precious Stones	2.1	2.1	6.0	8.7	5.7	9.9			
Organic and Inorganic Chemicals	1.3	2.6	3.0	5.3	7.1	4.8			
Others	3.7	6.8	14.3	15.4	18.5	23.3			
Professional, Scientific Instruments, Photographic	0.6	0.7	1.1	2.5	1.9	1.7			
Coal, Coke and Briquettes, etc.	0.4	0.9	1.2	1.8	2.5	2.0			
Total Imports	24.1	36.7	61.4	100.0	100.0	100.0			

Source: Directorate General of Commercial Intelligence and Statistics, Government of India.

⁶ The recent amendment to the Warehousing Corporations (Amendment) Bill, 2001 got the Presidential assent on August 29, 2001.

⁷ As on end-December 2003, 48 AEZs have been set up in 19 states.

Table 4.36: Commodity Balance of Petroleum and Petroleum Products

(Million tonnes)

Items	1990-91	1997-98	1999-2000	2000-01	2001-02*
1	2	3	4	5	6
Crude					
Refinery Throughput	51.8	65.2	86.0	103.4	107.3
Domestic Production	33.0	33.9	31.9	32.4	32.0
Imports	20.7	34.5	45.0	74.1	78.7
Products					
Domestic Consumption	55.0	84.3	97.1	100.1	100.1
Domestic Production	48.6	61.3	79.4	95.6	100.0
Imports	8.7	19.5	16.6	9.3	7.0
Net Imports	6.0	16.6	15.9	0.9	-3.1

* Provisional

Source: Economic Survey, Government of India, 2002-03.

4.68 There have been a number of subtle compositional shifts within the broad level of aggregation during the last decade that need to be recognised. For instance, within the petroleum imports, there has been a shift from import of petroleum products towards crude imports following a large scale increase of refinery capacity over time. Furthermore, India has transformed itself from a net importer of finished petroleum products to net exporter of the same in 2001-02 (Table 4.36).

4.69 Another significant development during the 1990s has been the channelling of imports of gold through official routes. Since 1997 when banks were allowed to import gold, the import of gold through passenger baggage has declined significantly (Table 4.37).

4.70 The position of major gainers and losers in terms of imports since 1990-91 provides a mirror

reflection of the changing growth pattern of the economy. The industries that have shown the least import propensity since the 1990s and thereby have gradually been phased out from the import commodity basket were mainly under the medium to low technology labour intensive sectors where Indian industry itself has acquired comparative advantage. Similarly, the industries that have registered the highest growth rate in terms of imports during the last decade have been mostly those with medium to high technology content and intermediary products needed for exports (Table 4.38).

4.71 Subsequent to the opening up, India's imports are being sourced from a wider range of countries. Traditionally important trading partners like Germany, Japan, UK and Australia have subsided in terms of their market share and new import partners from Africa and

Table 4.37: Gold Imports

Year	(US \$ million)			Share in total Imports (per cent)	Gold Demand in India (tonnes)*	World Gold Demand (tonnes)*	International Gold Prices (in US \$/ounce)*
	Customs Imports	Imports through Passenger Baggage	Total Gold Imports				
1	2	3	4	5	6	7	8
1992-93	220.3	1,083.1	1,303.4	6.0	454	2,519	344
1993-94	245.8	1,224.9	1,470.7	6.3	405	2,605	360
1994-95	470.0	1,894.1	2,364.1	8.3	415	2,592	384
1995-96	540.7	1,891.0	2,431.7	6.6	477	2,726	384
1996-97	688.8	2,629.6	3,318.4	8.5	508	3,104	388
1997-98	2,774.8	2,652.8	5,427.6	13.1	688	3,770	331
1998-99	4,525.0	162.1	4,687.1	11.1	774	3,451	294
1999-00	4,154.1	12.5	4,166.6	8.4	731	3,511	279
2000-01	4,121.6	8.7	4,130.3	8.2	723	3,343	279
2001-02	4,170.4	12.5	4,182.9	8.1	727	3,413	273
2002-03	3,791.2	18.0	3,809.2	6.2	576	3,067	310

* In Calendar Year

Source: 1. Directorate General of Commercial Intelligence and Statistics, Government of India.

2. Gold Demand Trends, World Gold Council, Various Issues.

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INTERNATIONAL TRADE DYNAMICS

Table 4.38: India's Trade: Top Gainers and Losers since the 1990s

(Per cent)

Item	Share in India's Imports		Growth rate
	1990-91	2002-03	1990-91 to 2002-03
1	2	3	4
Gainers			
Computer Goods	0.1 #	0.5	36.4 *
Electronic Goods	3.9 #	8.7	21.7 *
Edible Oils	0.8	2.9	21.1
Textile Yarn, Fabrics, Made-ups, etc.	1.0	1.6	12.0
Cashew Nuts	0.3	0.4	10.8
Losers			
Cereals and Cereal Preparations	0.4	0.0	-11.2
Project Goods	5.9	0.9	-8.1
Fertilisers	4.1	1.0	-4.2
Electrical Machinery except Electronic	3.9	1.0	-3.2
Iron and Steel	4.9	1.5	-1.9

Import share in 1993-94. * Growth rate since 1993-94.

Source: Directorate General of Commercial Intelligence and Statistics, Government of India.

East Asia (including China) have emerged and are increasingly gaining importance. In recent years, Belgium, from where India imports its major export oriented item of gems and jewellery, has emerged as

one of the principal sources of imports. Another interesting feature has been the gradual dissipation of the Commonwealth of Independent States (CIS) countries as major sources of India's imports (Table 4.39).

Table 4.39: Major Sources of India's Imports

Rank	1990-91			2002-03		
	Country	Share (Per cent)	Top Non-Oil Products	Country	Share (Per cent)	Top Non-Oil Products
1	2	3	4	5	6	7
1	U S A	12.1	Machinery (except electrical and machine tools), Metaliferrous ores and metals scrap, Fertiliser manufactured	U S A	7.2	Electronic Goods, Fertiliser manufactured, Machinery (except electrical and electronics)
2	Germany	8.0	Machinery (except electrical and machine tools), Project goods, Iron and Steel	Belgium	6.1	Pearls, precious and semi-precious stones, Transport equipments, Machinery (except electrical and electronics)
3	Japan	7.5	Machinery (except electrical and machine tools), Transport equipments, Iron and Steel	China	4.5	Electronic goods, Chemicals - Organic and Inorganic, Textile Yarns, Fabrics, Made up Artides
4	Saudi Arabia	6.7	Artificial resins, plastic materials etc., Sulphur and Unrostd Iron Pyrts, Organic Chemicals	U K	4.5	Pearls, precious and semi-precious stones, Non-ferrous metals, Machinery (except electrical and electronics)
5	U K	6.7	Pearls, precious and semi-precious stones, Machinery (except electrical and machine tools), Project goods	Germany	3.9	Machinery (except electrical and machine tools), Electronic goods, Chemicals - Organic and Inorganic
6	Belgium	6.3	Pearls, precious and semi-precious stones Organic Chemicals ,Iron and Steel	Switzerland	3.8	Gold and Silver, Machinery (except electrical and electronics), Organic Chemicals
7	CIS	5.9	Project goods, Non-ferrous metals, Fertiliser manufactured	South Africa	3.4	Gold and Silver, Coal, coke and briquittes etc., Chemicals - Organic and Inorganic
8	U A E	4.4	Metaliferrous ores and metals scrap, Sulphur and Unrostd Iron Pyrts', Inorganic chemicals	Japan	3.0	Machinery excluding Electric and Electronic, Electronic Goods, Professional Instruments (except electric), Iron and Steel
9	Australia	3.4	Coal, coke and briquittes etc., Transport equipments, Pulses	Korea	2.5	Electronic Goods, Machinery excluding Electric and Electronics, Transport Equipments
10	Singapore	3.3	Machinery (except electrical and machine tools), Electrical machinery, Transport equipments	Malaysia	2.4	Vegetable oil fixed (edible), Electronic Goods, Wood and wood products
Top 10 Countries' Share		64.3			41.3	

Note : The share shown in the table is inclusive of petroleum, crude and products.

Source : Directorate General of Commercial Intelligence and Statistics, Government of India.