

OCCASIONAL PAPER 17
2000

EXPORT PRODUCT
DIVERSIFICATION
IN THE US MARKET
INDIAN EXPERIENCE



B. BHATTACHARYYA
AND
PRITHWIS K. DE

INDIAN INSTITUTE OF FOREIGN TRADE
NEW DELHI

Prof. B. Bhattacharyya is currently Dean, Indian Institute of Foreign Trade. His area of specialisation is International Business. He is the author of several award winning books in this field. Two of his recent works are "Winning the World Market" (1994) and "Export Marketing: Strategy for Success" (1992), both published by the Global Business Press. He has also edited several books, the latest one entitled "Seattle and Beyond: The Unfinished Agenda" (January 2000). Earlier, he was Senior UN Adviser, based in Geneva and Zambia. He has worked as a Consultant to many national and international organisations. He is also associated with many national level institutions in the area of management education.

Shri Prithwis K. De is currently Fellow at the Indian Institute of Foreign Trade. He is pursuing his doctoral research at Jawaharlal Nehru University. He has been associated with several projects of the Institute, including India's Commodity Exports: A Post-Uruguay Round Appraisal and India's Trade Policy Reforms: An Assessment.

Series Editors: **B. Bhattacharyya**
Dean, IIFT

Anil K. Kanungo
Editor, IIFT

EXPORT PRODUCT DIVERSIFICATION IN THE US MARKET

INDIAN EXPERIENCE

B. BHATTACHARYYA

AND

PRITHWIS K. DE



INDIAN INSTITUTE OF FOREIGN TRADE
IIFT BHAWAN, QUTAB INSTITUTIONAL AREA
NEW DELHI-110016

INDIAN EXPERIENCE
IN THE U.S. MARKET
DIVERSIFICATION
EXPORT PRODUCT

S. BHATTACHARYA

... is pursuing his doctoral research at Jawahar
... AND has been associated with several projects
... UNIVERSITY. He has been associated with several projects
... INSTITUTE, including India's Commodity Exports: A Post
... BOARD APPROVAL and to the Trade Development
...

Rs 50

Printed for the Indian Institute of Foreign Trade by
Apex Printing House, New Delhi-110016.

FOREWORD

USA has traditionally been India's largest trade partner, both in terms of an export market and as a supplier. In fact, its importance as an export market has increased over the last five years. The share of USA in India's total exports rose from 18 per cent during 1993-94 to 19.5 per cent during 1997-98. More importantly, India has managed to secure a higher share of the total American import market, even though in absolute terms, India's share continues to be abysmally low. India's share in US total imports has increased to 0.86 per cent in 1997 from 0.68 per cent in 1993. This increasing share obviously reflects the fact that the rate of growth of US imports from India had been higher than the average rate of growth in global imports of USA during the period.

This success can be attributed to several factors, including India's improved price competitiveness, flexibility in managing export product portfolio and increased marketing efforts by the Indian export firms. This paper specifically looks at the hypothesis whether India's improved market performance is due to its ability to introduce new export products in the US market. In a market characterised by rapid dynamic shifts in buying preferences, a country's ability to service instantaneously the emerging demands becomes the crucial success factor. The paper has reached the conclusion that India has been fairly successful in introducing new export products in the American market. More importantly, such introductions have been pronounced in the high technology sector.

This is the first rigorous analysis of this important aspect of international marketing. I hope this study will prove useful to all interested in this area.

K. DHARMARAJAN
DIRECTOR GENERAL

NEW DELHI
March 2000

Export Product Diversification in the US Market Indian Experience

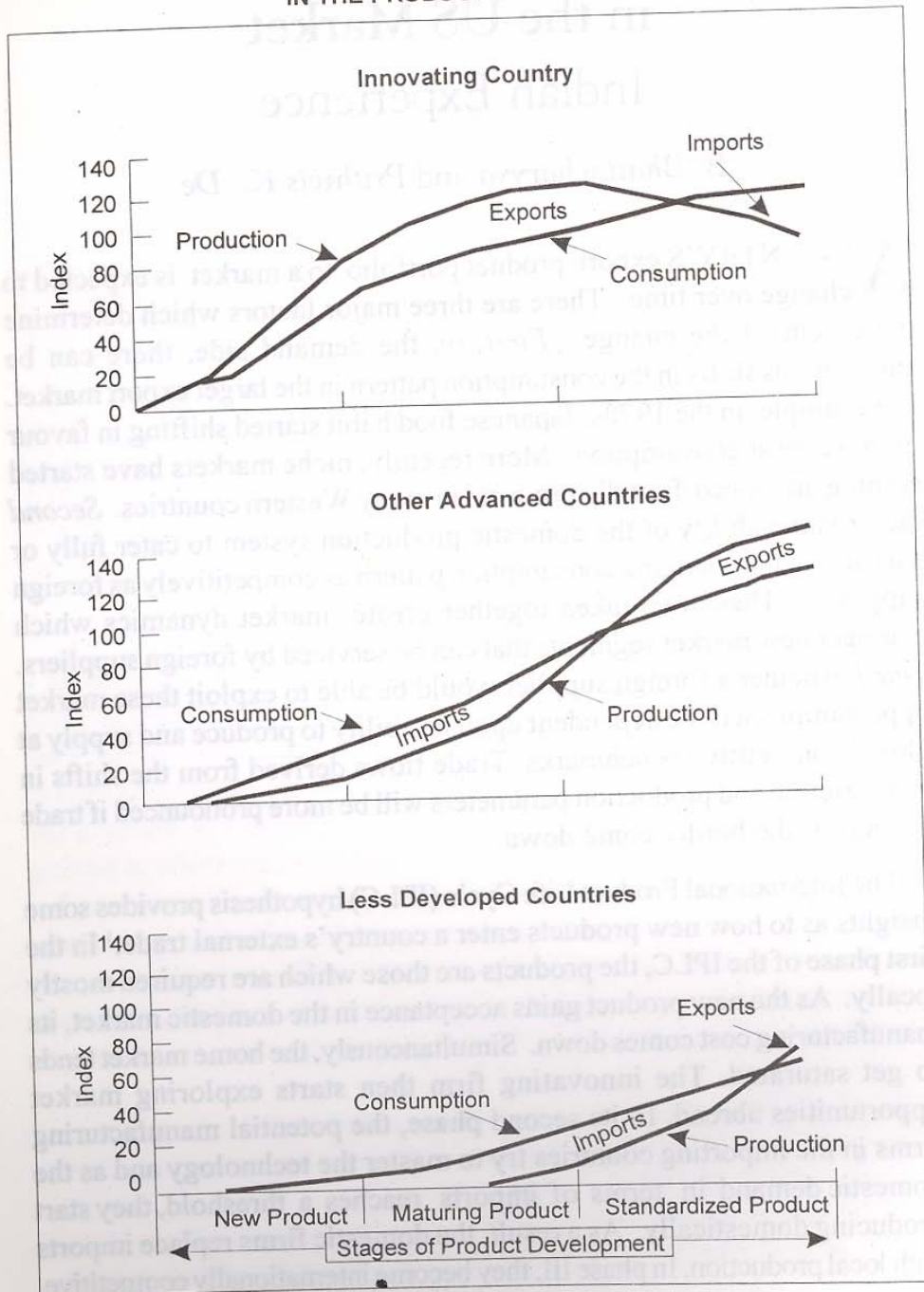
B. Bhattacharyya and Prithwis K. De

A COUNTRY'S export product portfolio to a market is expected to change over time. There are three major factors which determine the extent of the change. *First*, on the demand side, there can be autonomous shifts in the consumption pattern in the target export market. For example, in the 1970s, Japanese food habit started shifting in favour of more meat consumption. More recently, niche markets have started coming up for eco-friendly products in many Western countries. *Second* factor is the ability of the domestic production system to cater fully or partially to the changing consumption pattern as competitively as foreign suppliers. These two taken together create market dynamics which engineer new market segments that can be serviced by foreign suppliers. *Third*, whether a foreign supplier would be able to exploit these market opportunities will be dependent upon its ability to produce and supply at global competitive benchmarks. Trade flows derived from the shifts in consumption and production parameters will be more pronounced if trade barriers at the border come down.

The International Product Life Cycle (IPLC) hypothesis provides some insights as to how new products enter a country's external trade.¹ In the first phase of the IPLC, the products are those which are required mostly locally. As the new product gains acceptance in the domestic market, its manufacturing cost comes down. Simultaneously, the home market tends to get saturated. The innovating firm then starts exploring market opportunities abroad. In its second phase, the potential manufacturing firms in the importing countries try to master the technology and as the domestic demand in terms of imports reaches a threshold, they start producing domestically. As a result, the domestic firms replace imports with local production. In phase III, they become internationally competitive.

¹ Wells, Jr., L.T. (1968), "A Product Life Cycle for International Trade", *Journal of Marketing*, Vol. 32, pp. 1-6.

FIGURE 1
INTERNATIONAL TRADE AND PRODUCTION
IN THE PRODUCT CYCLE



Source: Raymond Vernon and Louis T. Wells, Jr., *Manager in the International Economy*, 5th ed. (Englewood Cliffs, NJ: Prentice-Hall, 1986), 83. Reprinted by permission of Prentice-Hall, Inc.

They start exporting to third country markets at the cost of the exports of the innovating firm. In phase IV, the follower firms are in a position to compete the innovating firm even in its home market. The international products life cycle depicting these phases is shown in Figure 1.

There is a perfect corollary between the product mix of a corporate body and the export composition of a country. In the case of a firm, the product mix must continually change in line with the demand shifts in the market. It can also create new market segments through its own R&D efforts and their successful commercial exploitation. It also simultaneously go through the product abandonment decisions, i.e., to shed those products whose value-creating potentials do not justify their continuance.² In the absence of such continued adjustments in the product mix, the corporate body must necessarily suffer.

A country's export structure must display similar flexibility if export growth is to be sustained. Since the economic reforms were initiated in 1991, India's export structure started responding to the policy shifts only after 1991. A study by IIFT has revealed that the share of labour-intensive exports in India's total exports has come down.³ On the other hand, the shares of technology-intensive and knowledge-intensive product groups have substantially increased (Table 1). These structural changes are the results of two factors — one on the supply side and the other on the demand side. On the supply side, this reflects the technological upgradation of the Indian economy and its increasing ability to operate at globally competitive level. On the demand side, this change was facilitated by the fact that the growth in global import demand in these sectors is substantially higher than the average growth rate in world imports. An additional contributory factor was that the cross-border barriers on technology and knowledge-intensive products are much lower than those applicable to a large number of labour-intensive products.

India's Exports to USA

USA is the world's largest import market, accounting for 15.61 per cent of global imports in 1997. It is also an economy which has a fairly

² Terpstra, V. and Sarathy, R. (1997), *International Marketing*, Seventh Edition, The Dryden Press.

³ Bhattacharyya, B., Mukhopadhyay, S., and De, P. (1999), *India's Trade Policy Reforms – An Assessment*, Indian Institute of Foreign Trade, New Delhi.

low tariff level. It has, however, several non-tariff measures which adversely impact India's exports.⁴

An attempt has been made to analyse whether the level of exports from India to USA is below or above the normal level to be expected from the levels of global trade of USA and India. It has been done by estimating the Export Intensity Index.

Export intensity of j's trade with i is:

$$x_{ji} = [(X_{ji}/X_j)/(M_i/(M_g - M_j))] \times 100$$

where X_{ji} = Exports of country j to country i.

X_j = Global exports of country j.

M_i = Global imports of country i.

M_g = Total global imports.

M_j = Global imports of country j.

If the value of the index is 100, it indicates that the level of export is consistent with the shares of the partner countries in the global trade. If the index value is more than 100, it means that the level of export is more than what can be justified by the levels of global trade of the partner countries. For index values of less than 100, the opposite conclusion holds. The estimated results have been presented in Table 2, which provides the complete data on Export Intensity Indices.

The indices are consistently higher than 100. It implies that India enjoys a level of exports in USA, which is more than what can be expected from their global trade levels. However, though there is no consistent upward trend in the index values, its relative position since 1995 has somewhat improved.

The growth rates of India's exports to USA and the rest of the world are given in Table 3. The comparison has been made with the rest of the world and not with the world total because USA is the largest export market of India and, therefore, the growth rates of the world as a whole would be influenced by the export growth rates to USA. It is evident from the data in Table 3 that no conclusion can be reached about the

⁴ Bhattacharyya, B., (1999), *Non-Tariff Measures on India's Exports – An Assessment*, Indian Institute of Foreign Trade, New Delhi.

relative growth rates. Out of the five years under observation, the growth rates to USA were higher in two years and lower in three years.

Export Product Diversification

Considering the fact that the US market is the largest, fast growing, as well as accounts for about 20 per cent of India's total exports, it is necessary to analyse in detail whether India's export structure has the potential flexibility to cater to this dynamic market. This paper has made an attempt to specifically analyse the following:

- (i) During the period under observation from 1993-94 to 1997-98, whether new export items have entered India's export basket to USA and if so, their relative contribution to the total.
- (ii) Identify the important new product groups which have contributed substantially to the export growth.
- (iii) Estimate the US market dependency of these new products, i.e., what proportion of these new export products is being sold in the US market.

Data and Methodology

The data have been sourced from India Trades Database - Centre for Monitoring Indian Economy (CMIE) and Directorate General of Commercial Intelligence and Statistics. Two years, namely 1993-94 and 1997-98 have been selected for this exercise. The former was chosen because the impact of trade liberalisation initiated in mid-1991 should become visible with a lag of about 1½ years. The choice of the terminal year was dictated by the availability of latest data. Exports from India to USA in 1993-94 and 1997-98 were compared at 8-digit (ITC-HS Code) level. New products were defined as those which were exported to USA in 1997-98 but were not exported to USA in 1993-94. This definition has a drawback. It is possible that an item exported in the terminal year might not have been exported in the base year but it might have been exported in a year preceding the base year. Further, since the exercise is based on a comparison of two years, without considering the intervening years, the exercise will not shed much light on the sustainability of these new exports as their dynamic growth path has not been studied. However, subject to these constraints, this exercise can find out answers to the research hypotheses as indicated earlier.

Results

The exercise has revealed that about 1,600 new items had figured in India's export product list to USA in 1997-98. The aggregate value of these new export items to USA was Rs 18,412 million. Since India's total exports to USA were Rs 252,330 million that year, the new items accounted for 7.3 per cent of India's total exports to USA.

From these about 1,600 items at the 8-digit HS Code level, 55 items could be chosen as those which have contributed the most. The basis of selecting these items was that the export value of each of these items was more than Rs 50 million in 1997-98. The details of these individual items are given in Table 4. It is noteworthy that most of these 55 new export products fall into information technology, electro-mechanical and other engineering categories.

These 1,600 items were aggregated under 2-digit HS Code level. These results are shown in Table 5. It is seen that only 3 two-digit level product groups, namely *Plastics and articles thereof* (Code 39), *Nuclear reactors, boilers, machinery and mechanical appliances & parts thereof* (Code 84) and *Electrical machinery and equipment & parts thereof; Sound & TV recorders and reproducers & parts thereof* (Code 85) contributed more than Rs 1,000 million, accounting for over 50 per cent of the total value of new exports. The disaggregated data can be seen in Appendix (Appx. Table 1.)

An effort has been made to analyse whether these new items are being exported only to USA or to other export markets as well. For this, export dependency ratio on the US market has been estimated. This ratio is the proportion of exports to USA to India's total export of that item. A frequency distribution of export dependency ratios is shown in Table 6. This exercise has been done for the three 2-digit ITC-HS Code categories, viz. 39, 84 and 85 which, as pointed out earlier, accounted for more than 50 per cent of total new exports. There are 227 items out of the total of 346 items (65.6%) whose export dependency ratio is less than 25 per cent. However, in terms of value, these account for only 10.4 per cent. On the other hand, there are only 22 items (6.4%) whose export dependency ratio is between 50 and 75 per cent but the share of these items in terms of value is as high as 63.9 per cent.

Conclusions

The following conclusions are drawn from the above analysis:

- (i) The current level of India's exports to USA is above what can be expected from the global trade shares of the two trading partners. Moreover, India has further consolidated its position in the US market since 1995.
- (ii) India has been fairly successful in terms of new product introduction in the US market. More than 1,600 items at 8-digit ITC HS Code level have entered the export product portfolio in 1997-98 compared to 1993-94. In terms of value, these products accounted for Rs 1,841 crore accounting for 7.3 per cent of India's total exports to USA in 1997-98.
- (iii) Most of these new export items have come from three major product categories. These are ITC HS Code, *Plastics and articles thereof* (Code 39), *Nuclear reactors, boilers, machinery and mechanical appliances and parts thereof* (Code 84) and *Electrical machinery and equipment & parts thereof; Sound & TV recorders and reproducers and parts thereof* (Code 85).

These three product groups comprise more than 50 per cent of incremental exports on account of new items.
- (iv) Many of these new export products are being exported only to the US market. Export dependency ratios calculated for these three 2-digit HS Code categories showed 346 new export products at 8-digit ITC HS Code level. Out of these, there are 21 products where 100 per cent of India's total exports were made only to USA. The number of items will increase to 32 items if the cut-off point is reduced to 90. (Appendix Appx. Table 2).

These conclusions suggest two sets of initiatives: *First*, efforts must be made to introduce new export items in other 2-digit HS Code product categories which so far have lagged behind in new product introduction. *Second*, there is a need to reduce export dependency on the US market which would involve developing new export markets for these products.

TABLE I
EXPORTS OF INDIA, 1991-92 TO 1997-98, BY CATEGORY

	1991-92	1992-93	1993-94	1994-95	1995-96	1996-97	1997-98
<i>Resource-based</i>							
Total (Rs million)	166,304.9	206,159.6	285,394.3	306,397.7	484,149.7	557,902.6	647,141.7
Per cent of total exports	47.95	45.76	51.52	43.16	49.30	50.13	49.85
<i>Labour-based</i>							
Total (Rs million)	110,464.4	143,281.7	171,319.3	217,023.1	263,589.9	271,864.3	320,615.6
Per cent of total exports	31.85	31.80	30.93	30.57	26.84	24.43	24.70
<i>Technology-based</i>							
Total (Rs million)	64,163.52	93,031.94	140,301.2	173,684.9	223,456.3	269,520.5	307,734.1
Per cent of total exports	18.50	20.65	25.33	24.46	22.75	24.22	23.70
Total exports (Rs million)	346,850.3	450,527.1	553,966.8	709,953.3	982,095.1	1,112,966.9	1,298,227.4

Source: India Trade Database - CMIE; and DGCI&S.

TABLE 2
EXPORT INTENSITY INDEX OF INDIA TO US (x_{ji})

		(US\$ million)				
	<i>Symbol</i>	1993	1994	1995	1996	1997
India's total export to the world	X_j	20,259	24,196	30,537	32,325	33,248
India's total import from the world	M_j	21,100	24,845	34,484	36,055	39,080
India's total export to USA	X_{ji}	3,885	4,661	5,305	6,184	6,440
Total imports of USA from the world	M_i	600,043	689,338	770,972	817,818	898,661
Total world imports	M_g	3,785,700	4,318,800	5,151,500	5,383,900	5,758,700
Export intensity of India's trade with USA	x_{ji}	120.31	119.99	115.30	125.10	123.28

Notes: (1) $x_{ji} = [(X_{ji}/X_j)/(M_i/(M_g - M_j))] * 100$.

(2) Values are DOTS world total.

(3) Year refers to calendar year.

Source: International Monetary Fund, *Direction of Trade Statistics Yearbook*.

TABLE 3
INDIA'S EXPORTS TO USA AND REST OF THE WORLD

	(Rs million)			
	<i>USA</i>		<i>Rest of the world</i>	
	<i>Exports</i>	<i>% annual growth rate</i>	<i>Exports</i>	<i>% Annual growth rate</i>
1992-93	101,832.8	—	435,047.2	—
1993-94	125,438.8	23.18	572,071.2	31.50
1994-95	157,643.2	25.67	669,096.8	16.96
1995-96	184,656.6	17.14	878,873.4	31.35
1996-97	232,716.8	26.03	955,453.2	8.71
1997-98	246,410.0	5.88	1,016,450.0	6.38

Source: DGCI&S.

TABLE 4

INDIA'S TOP EXPORT ITEMS IN 1997-98

(Rs million)

<i>ITC HS Code</i>	<i>Product</i>	<i>World</i>	<i>USA</i>
84717002	Winchester/hard disc drives	4,602.539	2,661.896
85249902	Floppy disc cartridge tape containing computer software	2,217.043	1,123.168
85249904	Recorded CD ROM	1,677.176	849.451
39206901	Polyester chips	893.703	615.564
76011001	Aluminium ingots—not alloyed	4,141.347	525.178
73259902	Drain covers	664.269	415.554
63071001	Floor-cloth, piece clothes, dusters and similar cleaning clothes of cotton	963.475	384.895
74181901	EPNS ware	801.022	365.96
39206905	Polyester film (excl. packaging/sun/dust)	749.912	344.866
89011004	Barges	310.029	307.68
85249901	Recorded video cassettes	3,018.491	274.343
28182002	Aluminium non-calcined	291.038	257.979
17019903	Sugar cubes	241.868	241.868
85232004	Unrecorded CD ROM	220.329	219.822
85479019	Electrical wiring accessories, n.e.s.	673.596	200.628
21011101	Instant coffee	3,879.229	199.203
72029919	Others	197.884	193.628
08013203	Cashewnut, raw	700.172	190.922
85245301	Magnetic tape of width exceeding 6.5 mm containing computer software	243.653	183.478
84118201	Gas turbines of power >5000 KW up to 15000 KW	190.445	172.636
85249909	Others	282.961	166.425
39206903	Packaging polyester film	324.053	165.065
84194001	Petroleum refining & distillation equipment	160.186	159.571
72015009	Other alloy pig iron	435.006	159.566
13021908	Cambodge extract	285.537	154.248

<i>ITC HS Code</i>	<i>Product</i>	<i>World</i>	<i>USA</i>
72044909	Others	175.077	144.067
76151902	Pressure cookers of aluminium alloys	283.344	140.912
63071002	Floor-cloth & the like of manmade fibre	219.175	138.026
38089009	Others	281.94	135.468
13019052	Paprika oleoresin	581.804	129.772
40119903	Nylon synthetic rubber tyre	353.961	120.098
85211001	Magnetic cassette tape-type	119.441	117.196
13019069	Other balsam & oleoresins	426.156	116.593
39206904	Sun/dust controlled polyester film	316.951	113.088
85279003	Pagers	760.692	102.157
62061003	Blouses, skirts, etc. of silk sequined/beaded with chattons & embroidered	117.07	93.091
84131109	Others pumps for dispensing fuel	204.494	90.406
84719005	Un-interrupted power supply (UPS)	342.012	81.744
29394102	Ephedrine hydrochloride	151.423	81.017
85451101	Electrodes of carbon used for furnaces	455.718	80.784
80011001	Block tin	145.712	76.685
29141909	Others	560.6	75.442
63041903	Bed sheet bed cover powerloom, hand printed of cotton	773.005	74.805
63041904	Bed sheet bed cover powerloom, other than hand printed of cotton	923.863	74.201
84716003	Data-entry terminal	75.015	68.745
63041905	Bed sheet bed cover, mill-made of cotton	985.517	68.433
84118206	Gas turbines of power >115000 KW	68.305	68.305
84719009	Others	111.836	64.559
84822001	Tapered roller bearings (radial type) <= 50 mm or 2 inches bore diameter	156.122	63.763
38081013	Lindane	86.366	62.505
26100004	Chrome ore friable & concentrates fixes containing 47 per cent and above Cr O _{2 3}	1,263.493	62.349
84714109	Other automatic data-processing machines and units thereof	82.213	60.226

<i>ITC HS Code</i>	<i>Product</i>	<i>World</i>	<i>USA</i>
84714101	Micro computer/processor incl. high powered personal computer	92.364	58.6
13021919	Extracts, n.e.s.	75.574	55.082
62043902	Jackets & blazers of silk, others	68.088	50.557

Notes: (1) Eight-digit ITC HS Code here.
(2) Items having export values greater than Rs 50 million.

Source: India Trades-CMIE, Mumbai.

TABLE 5
CONTRIBUTION OF NEW ITEMS TO INDIA'S EXPORTS TO USA

(Rs million)				
<i>Code</i>	<i>Product</i>	<i>Total</i>	<i>New</i>	<i>Contribution of new items (%)</i>
1	Live animals	0.008	0	0
2	Meat and edible meat offal	20.46	0.144	0.7
3	Fish and crustaceans, molluscs and other aquatic invertebrates	5,101.671	28.236	0.55
4	Dairy produce, birds' eggs; natural honey; edible products of animal origin, n.e.s.	25.222	12.362	49.01
5	Products of animal origin, n.e.s.	24.828	23.295	93.83
6	Live trees, and other plants; bulbs, roots & the like; cut flowers & ornamental foliage	207.709	9.853	4.74
7	Edible vegetables and certain roots and tubers	465.367	4.585	0.99
8	Edible fruit and nuts; peel or citrus fruit or melons	5,542.801	205.305	3.7
9	Coffee, tea, mate and spices	5,399.707	141.849	2.63
10	Cereals	1,288.744	0	0
11	Products of the milling industry; malt; starches; inulin; wheat gluten	8.858	0.905	10.22

<i>Code</i>	<i>Product</i>	<i>Total</i>	<i>New</i>	<i>Contribution of new items (%)</i>
12	Oil seeds and oleaginous fruits; misc. grains, seeds & fruits, industrial or medical plants; etc., straw & fodder	2,047.806	54.615	2.67
13	Lac; gums, resins and other vegetable soaps & extracts	3,236.87	535.409	16.54
14	Vegetable plaiting materials; vegetable products, n.e.s. or included	43.042	11.245	26.13
15	Animal or vegetable fats and oils & their cleavage products, animal or vegetable waxes	1,198.231	11.16	0.93
16	Preparations of meat, of fish or of crustaceans, molluscs or other aquatic invertebrates	42.742	0	0
17	Sugar and sugar confectionery	263.405	245.205	93.09
18	Cocoa and cocoa preparations	13.713	0.551	4.02
19	Preparations of cereals, flour, starch or milk; pastry cooks' products	145.816	0	0
20	Preparations of vegetables, fruit, nuts or other parts of plants	139.92	2.178	1.56
21	Miscellaneous edible preparations	316.192	207.03	65.48
22	Beverages, spirits and vinegar	42.489	2.695	6.34
23	Residues and waste from the food industries; prepared animal fodder	36.118	25.386	70.29
24	Tobacco and manufactured tobacco substitutes	177.731	87.431	49.19
25	Salt; sulphur; earths and stone; plastering material, lime and cement	453.828	36.038	7.94
26	Ores; slag and ash	417.336	63.561	15.23
27	Mineral fuels, mineral oils and products; bituminous substances; mineral waxes	6.12	4.319	70.57
28	Inorganic chemicals; compounds of precious metals, of rare-earth metals; of radio-active elements	1,536.049	360.837	23.49
29	Organic chemicals	5,602.91	720.347	12.86
30	Pharmaceutical products	1,504.688	154.114	10.24

<i>Code</i>	<i>Product</i>	<i>Total</i>	<i>New</i>	<i>Contribution of new items (%)</i>
31	Fertilisers	1.186	0	0
32	Tanning, dyeing and colouring material	2,955.168	192.981	6.53
33	Essential oils and resinoids; cosmetic and other similar preparations	725.667	35.253	4.86
34	Soap & other similar preparations; polishes & creams; candles and the like, dental waxes & preparations	149.105	10.143	6.8
35	Albuminoidal substances; modified starches; glues enzymes	167.87	44.311	26.4
36	Explosives; pyrotechnic products; matches; certain combustible preparations	4.953	1.91	38.56
37	Photographic or cinematographic goods	231.051	0.129	0.06
38	Miscellaneous chemical products	1,001.329	466.008	46.54
39	Plastics and articles thereof	2,464.009	1,311.154	53.21
40	Rubber and articles thereof	3,323.796	209.875	6.31
41	Raw hides and skins (other than fur skins and leather)	404.727	13.213	3.26
42	Articles of leather, saddlery harness and animal glut	6,079.387	34.569	0.57
43	Fur skins and artificial fur; manufactures thereof	0	0	0
44	Wood and articles of wood; wood charcoal	162.424	90.187	55.53
45	Cork and articles of cork	4.624	0	0
46	Manufactures of straw; of esparto or of other plaiting materials, basketware & wickerwork	11.17	1.62	14.5
47	Pulp of wood or of other material; waste and scrap of paper or paperboard	0.115	0	0
48	Paper and paperboard; articles of paper pulp of paper and paperboard	233.617	39.533	16.92

<i>Code</i>	<i>Product</i>	<i>Total</i>	<i>New</i>	<i>Contribution of new items (%)</i>
49	Printed books & other products of printing industry	171.864	0	0
50	Silk	1,720.354	71.958	4.18
51	Wool, fine or coarse animal hair	300.889	58.255	19.36
52	Cotton	7,046.968	194.046	2.75
53	Other vegetable textile fibres; paper yarn and fabrics	818.724	27.382	3.34
54	Man-made filaments	481.926	81.427	16.9
55	Man-made staple fibres	230.07	23.037	10.01
56	Wadding, felt and non-woven; special yarns; twine, cordage, ropes and cables and articles thereof	112.716	29.908	26.53
57	Carpets and other textile floor coverings	8,214.642	40.254	0.49
58	Special woven fabrics; tufted textile fabrics; lace; tapestries; trimmings; embroidery	1,097.49	50.989	4.65
59	Impregnated, coated, covered or laminated textile fabrics; textile articles for industrial use	153.882	22.402	14.56
60	Knitted or crocheted fabrics	21.85	5.637	25.8
61	Articles of apparel and clothing accessories, knitted or crocheted	10,726.591	55.752	0.52
62	Articles of apparel and clothing accessories, not knitted or crocheted	37,438.307	325.756	0.87
63	Other made-up textile articles; sets; worn textiles; rags	8,001.749	820.787	10.26
64	Footwear, gaiters and the like; parts of such articles	3,469.856	4.95	0.14
65	Headgear and parts thereof	27.328	0.854	3.13
66	Umbrellas, walking & seat sticks; whips riding crops and parts thereof	5.252	0.449	8.55
67	Prepared feathers and down with articles, artificial flowers; articles of human hair	32.026	10.164	31.74

<i>Code</i>	<i>Product</i>	<i>Total</i>	<i>New</i>	<i>Contribution of new items (%)</i>
68	Articles of stone, plaster, cement, asbestos, mica or similar material	1,808.7	9.663	0.53
69	Ceramic products	81.536	14.389	17.65
70	Glass and glassware	107.649	16.737	15.55
71	Pearls, precious or semi-precious stones/metals and articles thereof; imitation jewellery & coin	73,881.61	30.735	0.04
72	Iron and steel	4,503.656	708.323	15.73
73	Articles of iron or steel	5,614.396	519.687	9.26
74	Copper and articles thereof	596.831	391.492	65.6
75	Nickel and articles thereof	15.277	3.292	21.55
76	Aluminium and articles thereof	783.75	743.418	94.85
78	Lead and articles thereof	2.371	0.131	5.53
79	Zinc and articles thereof	6.585	5.602	85.07
80	Tin and articles thereof	170.563	101.052	59.25
81	Other base metals; cermets; articles thereof	85.232	70.715	82.97
82	Tools and their parts of base metal	1,221.57	4.296	0.35
83	Miscellaneous articles of base metal	392.059	5.27	1.34
84	Nuclear reactors, boilers, machinery and mechanical appliances; parts thereof	8,564.159	4,089.235	47.75
85	Electrical machinery and equipment and parts thereof; sounds & TV recorders and reproducers & parts thereof	7,213.816	3,804.721	52.74
86	Railway or tramway locomotives, truck, etc.; equipment and parts thereof	38.386	2.867	7.47
87	Road vehicles and parts	2,895.015	36.801	1.27
88	Aircraft, spacecraft, and parts thereof	229.358	3.126	1.36
89	Ships, boats and floating structures	308.515	308.515	100
90	Optical, measuring, medical & similar instruments & parts thereof	720.927	234.448	32.52
91	Clocks, watches and spare parts	44.729	8.082	18.07

<i>Code</i>	<i>Product</i>	<i>Total</i>	<i>New</i>	<i>Contribution of new items (%)</i>
92	Musical instruments; parts and accessories	75.132	0	0
93	Arms and ammunition; parts and accessories thereof	1.05	0	0
94	Furniture; bedding and allied articles, lighting fittings; illuminated articles, etc.	122.833	14.214	11.57
95	Toys, games and sports requisites; parts and accessories thereof	292.71	19.383	6.62
96	Miscellaneous manufactured articles	394.929	34.575	8.75
97	Works of art, collectors' pieces and antiques	6.603	0.45	6.82
98	Project goods; some special uses	9.553	6.129	64.16
99	Miscellaneous goods	8,837.747	0.987	0.01
	Total of Above	252,330.31	18,411.883	7.3

Notes: (1) Two-digit ITC HS Code level.
(2) Data refers to 1997-98.

Source: India Trades—CMIE, Mumbai.

TABLE 6

FREQUENCY DISTRIBUTION OF INDIA'S EXPORT DEPENDENCY TO USA AT 8-DIGIT LEVEL ITEMS UNDER CODE 39, 84 AND 85 IN 1997-98

<i>Ratio</i>	<i>Items</i>		<i>Exports</i>	
	<i>Numbers</i>	<i>Per cent</i>	<i>Value</i>	<i>Per cent</i>
Above 0 but below 25	227	65.61	9,596.58	10.43
25 & above but below 50	55	15.90	12,314.00	13.38
50 & above but below 75	22	6.36	58,794.86	63.87
75 & above	42	12.14	11,346.00	12.33
Total	346	100.00	92,051.10	100.00

Source: Derived from Appendix (Appx. Table 2).

APPENDIX

APPX. TABLE I

INDIA'S NEW EXPORT ITEMS TO USA IN 1997-98 UNDER HS CODE – 39, 84 AND 85

<i>Code</i>	<i>Product</i>	<i>World</i>	<i>USA</i>
Code: 39			
39206901	Polyester chips	8,937.03	6,155.64
39206905	Polyester film (excl. packaging/sun/dust)	7,499.12	3,448.66
39206903	Packaging polyester film	3,240.53	1,650.65
39206904	Sun/dust controlled polyester film	3,169.51	1,130.88
39121209	Others	319.82	144.66
39264004	Plastic imitation jewellery n.e.s.	127.95	55.78
39122001	Nitrocellulose (e.g. cellulose nitrate moulding powders) non-plasticised	363.99	47.36
39199001	Thermocol	50.52	45.06
39122011	Nitro cellulose (e.g. cellulose nitrate moulding powders) plasticised	83.06	39.74
39261009	Others	412.64	32.99
39231009	Other boxes, cases, etc. of plastics	565.91	29.18
39129009	Others	62.82	28.73
39031909	Polystyrene in primary forms n.e.s.	2,328.13	27.96
39122019	Others—plasticised	233.86	27.94
39261001	Plastic sticker whether not printed embossed/impregnated	203.12	21.97
39169007	Polypropylene	209.49	21.37
39121202	Cellulose acetate moulding powder	56.27	17.22
39263001	Cellulose adhesive tapes	219.33	15.97
39121203	Cellulose acetobutyrate moulding powder	15.26	14.83
39011009	Other LDPE	1,257.53	14.52
39169005	Polyurethanes	38.06	12.52
39199009	Others	472.15	11.75
39169016	Cellulose acetate and acetate butyrate (plasticised and non-plasticised)	18.19	10.82
39069001	Acrylic resins	128.5	9.51

<i>Code</i>	<i>Product</i>	<i>World</i>	<i>USA</i>
39231002	Watch box, jewellery box and similar containers of plastics	54.55	8.53
39205101	Sheets of polymethyl methacrylate	10.18	8.23
39231001	Plastic container for audio/video cassette	146.15	7.78
39172901	Seamless tube of copolymers of vinyl acetate and vinyl chloride	27.64	7.72
39042202	PVC resins by suspension method	2,581.36	7.64
39121101	Cellulose acetate flakes	15.2	7.58
39123902	Methyl cellulose non-plasticised	17.34	7.58
39123912	Methyl cellulose plasticised	24.12	7.39
39011001	Linear low density polyethylene (LDPE)	1,063.39	6.87
39205901	Polyacrylate sheets	55.8	5.94
39172902	Seamless tube of polymers & copolymers of polystyrene	14.2	5.49
39094004	Ketonic resins	41.08	3.97
39189001	Floor coverings of linoxyn	106.8	3.84
39263009	Others	64.67	3.32
39172309	Others	322.14	2.18
39069002	Polyacrylate moulding powder	24.91	1.64
39042101	PVC by emulsion method resins (Other plasticised PVC)	433.17	0.12
39042201	PVC by emulsion method resins (Other non-plasticised PVC)	796.46	0.01
Code: 84			
84717002	Winchester/hard disc drives	46,025.39	26,618.96
84118201	Gas turbines of power >5000 KW up to 15000 KW	1,904.45	1,726.36
84194001	Petroleum refining & distillation equipment	1,601.86	1,595.71
84131109	Others pumps for dispensing fuel	2,044.94	904.06
84719005	Un-interrupted power supply (UPS)	3,420.12	817.44
84716003	Data-entry terminal	750.15	687.45
84118206	Gas turbines of power >115000 KW	683.05	683.05
84719009	Others	1,118.36	645.59

<i>Code</i>	<i>Product</i>	<i>World</i>	<i>USA</i>
84822001	Tapered roller bearings (radial type) <= 50 mm or 2 inches bore diameter	1,561.22	637.63
84714109	Other digital automatic data-processing machine comprising a central processing unit and an input & output unit	822.13	602.26
84714101	Micro computer/processor incl. of high powered personal computer	923.64	586
84733002	Connectors for computer terminal ports and the like	1,792.41	483.48
84714102	Large/main-frame computer	1,080.68	356.4
84821002	Adapter ball bearings (radial type)>50 mm or 2 inches bore diameter but <= 100 mm or 4 inches bore diameter	560.91	313.6
84717001	Floppy disc drives	728.26	262.67
84452019	Other textile fibres spinning machines	3,521.85	259.09
84079001	Petrol engines	314.96	135.04
84589929	Centre lathes, others	972.37	134.76
84543002	Continuous casting machines	341.68	128.67
84713009	Other digital automatic data-processing machine weighing <= 10 kg with a keyboard & display consisting of a central processing machine	197.3	98.16
84597009	Others	487.5	97.37
84729001	Stapling machines (staplers)	207.36	97.26
84082002	Engines of cylinder capacity >50 cc but <=250 cc	101.26	87.85
84692001	Braille	187.67	87.37
84099111	Parts of petrol engines excl. for motor	437.3	83.03
84131901	Water pump for internal combustion engine	342.57	81.42
84829104	High speed steel balls	147.08	78.5
84211909	Other centrifuges	919.56	73.92
84719008	CGA monitor	74.47	72.62
84614019	Other gear finishing machines	232.69	70.65
84229009	Parts of other machinery	343.73	69.36
84552102	Combination hot & cold rolling mills	341.57	68.31

<i>Code</i>	<i>Product</i>	<i>World</i>	<i>USA</i>
84629109	Others	366.94	63.91
84118203	Gas turbines of power >30000 up to 60000 KW	63.52	63.52
84798905	Tea-leaf cutting/rolling machinery	1,428.78	63.31
84621009	Forging machines, n.e.s.	84.5	62.13
84383002	Sugar manufacturing machinery (excl. centrifuges)	1,423.05	60.24
84821004	Ball bearing (radial type) excl. adapter ball bearing (radial type) (self aligning ball bearing n.e.s. separable ball bearings <=50 mm or 2 inches bore diameter)	348.39	59.69
84589906	Copying lathes	57.26	56.76
84212109	Others	193.99	50.99
84314301	Parts of boring/sinking machinery, self-propelled	359.56	49.49
84304102	Petroleum & gas well drilling equipment	6,861.9	48.33
84717004	Magnetic tape drives	49.22	47.96
84822002	Tapered roller bearings (radial type) >50 mm or 2 inches bore diameter but <= 100 mm or 4 inches bore diameter	138.21	45.6
84483301	Spindles, etc. for cotton spinning machines	190.84	43.69
84829115	Rollers	120.55	43.19
84186909	Others	253.03	42.93
84604019	Others	98.61	38.59
84145103	Pedestal fans	191.49	37.61
84435919	Others	746.74	37.35
84099912	Component parts of diesel engine, excl. outbox	695.66	36.96
84521001	Sewing machines — complete, with stand/table	274.49	33.55
84596909	Others	605.3	31.93
84742001	Crushing/grinding machines for stone & mineral	165.53	31.89
84212101	Ion exchanger plant/apparatus	1,309.97	31.47

<i>Code</i>	<i>Product</i>	<i>World</i>	<i>USA</i>
84581904	Automatic, single spindle horizontal chucking	132.36	29.78
84328009	Others	325.67	29.56
84836009	Others	218.06	29.22
84589908	Crank shaft	171.79	29.05
84137006	Submersible pumps	519.77	28.96
84825001	Radial type roller bearings, excl. tapered, <= 50 mm or 2 inches bore diameter	692.19	28.85
84821006	Ball bearings (radial type) excl. adapter	60.63	27.16
84029009	Parts of other steam & vapour generating boilers	481.77	27.04
84461009	Others	516.7	25.56
84099106	Piston assemblies	242.46	24.29
84659901	Lathes for working wood, etc.	110.53	24.14
84198903	Water treatment plant	468.71	22.96
84629101	Hydraulic extension	123.12	22.84
84079002	Kerosene engines	292.7	22.44
84639009	Others	164.98	22.28
84552101	Hot rolling mills	199.2	21.69
84099902	Cranks, transmission (integral parts of engines)	101.3	20.49
84191102	Non-electrical (other than domestic type)	95.87	20.42
84589902	Automatic, multi-spindle chucking	54.54	19.78
84248901	Painting equipment incl. electrostatic phosphating, powder coating equipment and other equipment	150.6	19.04
84198908	Mixing & homogenising equipments for chemical industries	329.82	17.75
84211901	Bowl centrifuges	58.75	17.4
84717009	Others	130.27	17.27
84543009	Metallurgical equipments, n.e.s.	47.19	16.22
84137001	Single & multistage chemical & process pumps	88.96	15.44

<i>Code</i>	<i>Product</i>	<i>World</i>	<i>USA</i>
84435901	Flat bed printing presses machinery	224.26	15.43
84742009	Other crushing/grinding machines	247.94	15.07
84452009	Cotton spinning machines, n.e.s.	317.41	14.88
84136001	Gear type pumps	78.84	14.63
84281001	Lifts for goods & persons	155.05	14.12
84149004	Parts of industrial fans, blowers & the like	79.29	14.07
84631003	Wire making machines	30.89	14
84379002	Parts of rice mill machinery	455.46	13.74
84509009	Other parts of household laundry type machine	188.24	13.7
84148001	Gas compressors	342.34	13.31
84138102	Hydraulic ram	64.43	12.96
84251101	Hoisting machine powered by electric motor	18.14	12.91
84383001	Sugar cane crushers	95.37	12.65
84425001	Impressed blocks and matrices, printing blocks, plates and cylinders	43.16	11.75
84716005	Dot metric printer	385.77	11.48
84615001	Band saw, horizontal	23.42	11.21
84238901	Beam scale	35.87	10.77
84440009	Others	85.98	10.49
84129001	Parts of steam engines incorporating boilers	40.27	10.06
84137008	Dredger pumps	9.84	9.84
84282002	Conveyors, excl. belt conveyors	86.46	9.73
84798906	Air humidification & de-humidification equipment	181.53	9.68
84781001	Cigar making machinery (incl. machines equipped with auxiliary packaging device)	35.78	9.46
84602901	Cylindrical, plain & universal	67.67	9.36
84792001	Oil seed crushing/grinding machinery (incl. purifying tanks)	538.56	9.14
84483309	Spindles, etc. for other textile fibres spinning machines	578.44	9.11
84678901	Grease guns, lubricators, etc.	42.16	9.08

<i>Code</i>	<i>Product</i>	<i>World</i>	<i>USA</i>
84484901	Parts of cotton weaving machinery	68.46	8.89
84682001	Gas-operated welding/cutting machines	111.57	8.77
84596109	Others	378.39	8.39
84624909	Other punching & notching machines	49.64	8.01
84021909	Others	1,517.85	7.69
84633003	Wire winding machine (excl. electric-coil winder)	53.73	7.5
84798901	Coke oven plants	75.78	7.4
84213901	Environmental protection equipment	25.68	6.93
84849002	Spiral wounds metallic gasket & heat exchangers	93.81	6.84
84511009	Dry cleaning machines for other textile	315.2	6.83
84609001	Polishing & baffling machines	255.94	6.75
84463003	Other cotton weaving machines	6.7	6.7
84581901	Automatic, single spindle horizontal bar, swiss type	123.91	6.52
84631009	Others	132.32	6.48
84742002	Crushing/grinding machines of coal	6.43	6.43
84849001	Asbestos metallic packing & gaskets (excl. gaskets of asbestos board reinforced with metal gauze/wire)	55.71	6.21
84484111	Shuttle of auxiliary machinery (e.g. dobbies, jacquards, automatic stop motions, shuttle changing mechanisms)	5.56	5.56
84571001	Machining centres horizontal	182.32	5.41
84472019	Knitting machines, n.e.s.	300.59	5.23
84136009	Others	174.64	5.09
84099906	Piston assemblies	39.78	4.99
84514029	Other washing, cleaning and drying machine	460.74	4.96
84021901	Fire tube, horizontal (Lancashire) boilers	421.43	4.59
84128003	Motors, spring operated excl. clock & watch movements (e.g. > gramophone motors)	6.38	4.54
84629914	Power presses	222.27	4.45

<i>Code</i>	<i>Product</i>	<i>World</i>	<i>USA</i>
84716019	Others	62.68	4.44
84137003	Horizontal self priming pumps	39.57	4.1
84542002	Ingot moulds	40.41	3.83
84542003	Moulding machines	241.11	3.79
84741001	Sorting, screening, washing machines, etc. of coal	48.09	3.53
84704001	Electrically operated accounting machine	3.46	3.46
84743101	Concrete mixers	172.58	3.44
84136002	Screw type pumps	46.12	3.43
84149002	Parts of free-piston generators of gas turbine	44.02	3.37
84131102	Oil pump for internal combustion engines	95.72	3.34
84829103	Special stainless steel balls	44.1	3.09
84238109	Others	54.05	2.88
84612011	Slotting machines excl. for gears	4.2	2.74
84462109	Others	130.32	2.73
84461003	Other cotton weaving machines	30.19	2.67
84713001	Personal computer (laptop, palmtop, etc.)	162.45	2.55
84145901	Air circulator	128.02	2.5
84294001	Road rollers up to 5 tonne capacity	128.6	2.43
84238909	Others	195.5	2.38
84539002	Parts of leather tanning & curing machine	20.6	2.33
84082001	Engines of cylinder capacity<=50 cc	183.12	2.13
84597001	Die-type (screwing machines)	25.52	2.12
84602902	Internal, grinder	9.83	2.06
84829114	Needles	39.47	2.04
84485101	Sinkers etc. of cotton hosiery machines	43.81	1.98
84388003	Diffusing machines (diffusers)	4.64	1.85
84099907	Fuel nozzles	171.3	1.83
84322901	Rotary hoes	10.82	1.74
84198901	Pressure vessels reactors, columns/towers	387.69	1.73
84145909	Others	112.47	1.6
84825002	Radial type roller bearings, excl. tapered, <= 50 mm or 2 inches bore diameter	192.51	1.6

<i>Code</i>	<i>Product</i>	<i>World</i>	<i>USA</i>
84281002	Skip hoists	1.58	1.58
84484101	Shuttles of cotton weaving machinery	56.38	1.55
84615005	Hack saw	8.74	1.53
84192009	Sterilizers, n.e.s.	295.94	1.46
84436001	Roller composition	175.16	1.29
84572001	Unit head boring	1.26	1.26
84314902	Parts of ships derricks and cranes	214.71	1.25
84484119	Other shuttles (excl. those for weaving machines)	118.76	1.19
84602919	Others	133.25	1.17
84138101	Gas pumps	63.7	1.16
84479003	Machines for preparing yarns for manufactures of tulle, lace, etc.	115.47	1.05
84716012	Laser jet printer	0.87	0.87
84483204	Parts & accessories for wool processing machines	0.86	0.86
84621001	Hammers, steam/air, single frame	66.98	0.77
84589912	Wheel and axle	2.17	0.57
84631001	Wire & metal ribbon drawing machines	230.59	0.55
84631002	Tube drawing machines	6.57	0.54
84368009	Others (incl. bee-keeping machinery)	21.86	0.51
84836002	Fluid coupling	69.86	0.35
84490001	Machinery for manufacture of fishing of felt in piece /in shapes (incl. felt hat making machines & hat making blocks)	30.89	0.26
84135002	Metering & dosing pumps	5.01	0.17
84389009	Parts of other food processing machinery	242.16	0.09
84483901	Combs for cotton textile machinery	80.21	0.06
Code: 85			
85249902	Floppy disc cartridge tape containing computer software	22,170.43	11,231.68
85249904	Recorded CD ROM	16,771.76	8,494.51
85249901	Recorded video cassettes	30,184.91	2,743.43

<i>Code</i>	<i>Product</i>	<i>World</i>	<i>USA</i>
85232004	Unrecorded CD ROM	2,203.29	2,198.22
85479019	Electrical wiring accessories, n.e.s.	6,735.96	2,006.28
85245301	Magnetic tape of width exceeding 6.5 mm containing computer software	2,436.53	1,834.78
85249909	Others	2,829.61	1,664.25
85211001	Magnetic cassette tape-type	1,194.41	1,171.96
85279003	Pagers	7,606.92	1,021.57
85451101	Electrodes of carbon used for furnaces	4,557.18	807.84
85249903	Recorded compact diskette (audio)	1,252.42	465.32
85211009	Others	764.33	429.38
85451909	Electrodes of other materials	809.25	304.35
85291009	Other aerials/aerial reflectors; parts	1,353.16	284.78
85245309	Other magnetic tape of width exceeding 6.5 mm	234.38	221.17
85424009	Other hybrid ICs	705.83	216.14
85175003	Modems (modulators-demodulators)	300.12	201.9
85211002	Spool type	197.81	197.81
85209002	CD (audio-recorder), other type	224.04	197.17
85171101	Push button type	705.03	191.8
85489001	Unpopulated printed circuit board	583.92	175.08
85068009	Others	1,412.76	159.81
85239002	Cartridge tape	180.64	140.33
85438909	Others	327.28	137.25
85489009	Other machinery & appliances	659.59	94.3
85173004	EPABX/EPAX/ intercom	322.91	90.34
85030002	Parts of generating sets	230.07	81.18
85175009	Others	99.32	78.18
85122009	Others	574.9	74.98
85414009	Others	193.54	73.87
85173009	Others	838.6	68.32
85013403	DC motors & DC generators of an output exceeding 2000 KW but not exceeding 5000 KW	66.47	66.47

<i>Code</i>	<i>Product</i>	<i>World</i>	<i>USA</i>
85023909	Complete generating sets n.e.s.	1,768.06	57.45
85353009	Isolating and make-&-break switches of other materials	721.2	55.47
85232003	Unrecorded compact disk	244.03	53.89
85462001	Porcelain discs & strings below 6.6 KV	615.16	49.62
85014002	Micro motors	215.47	46.62
85068001	Button cell for quartz watch, calculators, etc.	53.21	45.04
85354001	Lightning arresters	626.95	43.25
85447009	Others	173.98	39.31
85021301	Generating sets with diesel engines with an output exceeding 375 KV & 1000 KV	347.28	32.05
85332902	Electrical resistance wire, bare, other than nichrome	30.34	30.34
85211003	Audio video mixing machine	144.64	25.02
85068002	Nickel cadmium chargeable (pencil battery)	144.48	24.36
85175001	PLCC equipment	108.09	24.32
85359012	Motor control gear & motor starters for DC motors either of constant speed/ speed control at above 1000volts	64.3	23.52
85251002	TV broadcast transmitter	48.09	19.28
85399001	Parts of fluorescent tube lamps	163.71	17.87
85013402	DC motors & DC generators of an output exceeding 1000 KW but not exceeding 2000 KW	38.74	16.58
85414002	Light emitting diodes (electrical luminescent)	27.56	15.95
85173005	Data cmnctn equipment incl. Intrfc/mltplxrs	163.41	15.84
85021305	Generating sets with a diesel engine of an output exceeding 1000 KV	80.14	15.3
85354002	Voltage limiters	140.52	14.87
85389009	Other parts and accessories of controlling monitoring instruments for non-diagnostic use	282.55	13.98
85447001	Lead alloy sheathed cables for lighting purposes	17.35	11.61
85167909	Others	58.97	11.46

<i>Code</i>	<i>Product</i>	<i>World</i>	<i>USA</i>
85441101	Winding wire of enameled copper	316.51	11.13
85441102	Winding wire of insulated copper	342.65	10.5
85438901	Metal detector	26.33	10.33
85088009	Others	88.18	10.3
85334009	Others	118.76	10.08
85122002	Automobile lighting equipment	147.67	10.07
85413009	Others	50.73	8.4
85123009	Others	48.03	6.6
85442012	Power cable with aluminium	628.16	6.5
85471001	Porcelain bushings below 6.6 KV	33.26	6.3
85334001	Potentiometers	59.6	6.28
85231302	Magnetic tapes of a width exceeding 6.5 mm for recording other than sound	6.25	6.25
85402001	Television camera tubes	8.05	6.13
85462011	Porcelain post insulators below 6.6 KV	86.73	5.86
85442022	Plastic insulated cables & flexes	309.72	5.57
85269105	VHF omni range equipment	267.24	5.51
85023902	Complete generating sets with water turbines	5.45	5.45
85124009	Others (e.g. defrosters, demisters, washer, motors/pumps, etc.)	6.36	5.3
85023901	Complete generating sets with steam engines	83.62	5.11
85361001	Switch fuse units of switch rating up to 15 amps, rewirable	245.87	4.99
85291001	Aerial/antenna	440.36	4.8
85291002	Dish antenna	184.42	4.77
85462031	Porcelain solid core insulators (H.T.)	314.39	4.69
85462024	Porcelain pin insulators above 66 KV	44.27	4.41
85171102	Rotary dial type	4.28	4.28
85431909	Others (e.g. cyclotrons)	17.67	4.28
85381002	Monitors for diagnostic apparatus (e.g. monitoring machines for heart disease)	3.65	3.53
85168001	Heat shrinkable component	155.49	3.19

<i>Code</i>	<i>Product</i>	<i>World</i>	<i>USA</i>
85279001	Radio communication receivers	136.46	3.17
85408901	Radio transmitting tubes	3.13	3.13
85414003	Laser diodes	3.1	3.1
85251009	Others	119.08	2.87
85153909	Others	88.56	2.61
85015209	Other types of AC motors	41.92	2.36
85359014	Junction boxes (bus bar)	150.21	2.31
85199901	Tape recorder (other than cassette type)	11.04	2.02
85351002	Switch fuse units of switch rating above 15 amps high rupturing capacity/rewireable	23.27	1.89
85131005	Torches	12.01	1.63
85152101	Automatic spot welding machinery	26.15	1.42
85173001	Stroager exchange	2.92	1.42
85333901	Potentiometers	10.86	1.32
85131002	Miners safety lamps, electric	1.6	1.1
85332102	Electrical resistance wire, bare, other than nichrome	0.96	0.96
85414001	Photocells	43.72	0.84
85462041	Telegraph and telephone insulators of porcelain (shackles, reels, cartons, deats) (L.T.)	89.94	0.67
85252001	Two-way radio communication equipment	5.38	0.65
85269101	Direction measuring equipment	185.6	0.65
85168009	Others	23.23	0.6
85113001	Distributors	3.09	0.57
85334003	Thermostats	109.31	0.57
85203902	CD (audio recorder)	0.55	0.55
85424001	Memory board	34.55	0.54
85252005	Cellular telephone	174.69	0.46
85369004	Junction boxes (bus bar)	107.92	0.43
85199903	CD (audio compact disc player)	7.84	0.35
85332901	Electrical resistance wire, bare, nichrome	40.94	0.23
85351004	High rupturing capacity fuses	13.27	0.21

<i>Code</i>	<i>Product</i>	<i>World</i>	<i>USA</i>
85442023	Rubber insulated cables & flexes	2.74	0.18
85362004	Earth leak circuit breakers	0.19	0.14
85016401	AC generators (alternators) of an output >750 KV but <= 2000 KV	148	0.1
85353001	Insulating switches & make-&-break switches of plastic	145.92	0.09
85171103	Cordless	249.13	0.01
	Total of above	267,225.8	92,051.1

Notes: 1. Value in Rs lakh.
2. Data for world are for comparison.

Source: India Trades—CMIE, Mumbai.

APPX. TABLE 2

INDIA'S EXPORT DEPENDENCY RATIO
UNDER HS CODE 39, 84 AND 85 IN 1997-98

(Value Rs lakh)

Sl. No.	ITC HS Code	Items	World (A)	USA (B)	(B) as % of (A)
Dependency ratio 75 and above					
1	84118206	Gas turbines of power>115000 KW	683.05	683.05	100.00
2	84118203	Gas turbines of power>30000 up to 60000 KW	63.52	63.52	100.00
3	84137008	Dredger pumps	9.84	9.84	100.00
4	84463003	Other cotton weaving machines	6.7	6.7	100.00
5	84742002	Crushing/grinding machines of coal	6.43	6.43	100.00
6	84484111	Shuttles of auxiliary machinery (e.g. dobbies, jacquards, automatic stop motions, shuttle changing mechanism)	5.56	5.56	100.00
7	84704001	Electrically operated accounting machine	3.46	3.46	100.00
8	84281002	Skip hoists	1.58	1.58	100.00
9	84572001	Unit head boring	1.26	1.26	100.00
10	84716012	Laser jet printer	0.87	0.87	100.00
11	84483204	Parts & accessories for wool processing machines	0.86	0.86	100.00
12	85211002	Spool type	197.81	197.81	100.00
13	85013403	DC motors & DC generators of an output exceeding 2000 KW but not exceeding 5000 KW	66.47	66.47	100.00
14	85332902	Electrical resistance wire, bare, other than nichrome	30.34	30.34	100.00
15	85231302	Magnetic tapes of a width exceeding 6.5 mm for recording other than sound	6.25	6.25	100.00
16	85023902	Complete generating sets with water turbines	5.45	5.45	100.00

<i>Sl. No.</i>	<i>ITC HS Code</i>	<i>Items</i>	<i>World (A)</i>	<i>USA (B)</i>	<i>(B) as % of (A)</i>
17	85171102	Rotary dial type	4.28	4.28	100.00
18	85408901	Radio transmitting tubes	3.13	3.13	100.00
19	85414003	Laser diodes	3.1	3.1	100.00
20	85332102	Electrical resistance wire, bare, other than nichrome	0.96	0.96	100.00
21	85203902	CD (audio-recorder)	0.55	0.55	100.00
22	85232004	Unrecorded CD ROM	2,203.29	2,198.22	99.77
23	84194001	Petroleum refining & distillation equipment	1,601.86	1,595.71	99.62
24	84589906	Copying lathes	57.26	56.76	99.13
25	85211001	Magnetic cassette tape-type	1,194.41	1,171.96	98.12
26	84719008	CGA monitor	74.47	72.62	97.52
27	84717004	Magnetic tape drives	49.22	47.96	97.44
28	39121203	Cellulose acetobutyrate moulding powder	15.26	14.83	97.18
29	85381002	Monitors for diagnostic apparatus (e.g. monitoring machines for heart disease)	3.65	3.53	96.71
30	85245309	Other magnetic tape of width exceeding 6.5 mm containing computer software	234.38	221.17	94.36
31	84716003	Data-entry terminal	750.15	687.45	91.64
32	84118201	Gas turbines of power>5000 KW up to 15000 KW	1,904.45	1,726.36	90.65
33	39199001	Thermocol	50.52	45.06	89.19
34	85209002	CD (audio-recorder), other type	224.04	197.17	88.01
35	84082002	Engines of cylinder capacity>50 cc but <=250 cc	101.26	87.85	86.76
36	85068001	Button cell for quartz watch, calculators, etc.	53.21	45.04	84.65
37	85124009	Others (e.g. defrosters, demisters, washer motors/pumps, etc.)	6.36	5.3	83.33
38	39205101	Sheets of polymethyl methacrylate	10.18	8.23	80.84
39	85175009	Others	99.32	78.18	78.72

<i>Sl. No.</i>	<i>ITC HS Code</i>	<i>Items</i>	<i>World (A)</i>	<i>USA (B)</i>	<i>(B) as % of (A)</i>
40	85239002	Cartridge tape	180.64	140.33	77.68
41	85402001	Television camera tubes	8.05	6.13	76.15
42	85245301	Magnetic tape of width exceeding 6.5 mm containing computer software	2,436.53	1,834.78	75.30
		Total of the above	12,359.98	11,346.11	

Dependency ratio 50 and above but below 75

1	85362004	Earth leak circuit breakers	0.19	0.14	73.68
2	84621009	Forging machines, n.e.s.	84.5	62.13	73.53
3	84714109	Other digital automatic data-processing machine	822.13	602.26	73.26
4	84251101	Hoisting machine powered by electric motor	18.14	12.91	71.17
5	84128003	Motors, spring operated excl. clock & watch	6.38	4.54	71.16
6	39206901	Polyester chips	8,937.03	6,155.64	68.88
7	85131002	Miners safety lamps, electric	1.6	1.1	68.75
8	85175003	Modems (modulators-demodulators)	300.12	201.9	67.27
9	85447001	Lead alloy sheathed cables for lighting purposes	17.35	11.61	66.92
10	84612011	Slotting machines excl. for gears	4.2	2.74	65.24
11	84714101	Micro computer/processor incl. of high powered personal computer	923.64	586	63.44
12	39169016	Cellulose acetate and acetate butyrate (plasticised and non-plasticised)	18.19	10.82	59.48
13	85249909	Others	2,829.61	1,664.25	58.82
14	85414002	Light emitting diodes (elct. luminescent)	27.56	15.95	57.87

<i>Sl. No.</i>	<i>ITC HS Code</i>	<i>Items</i>	<i>World (A)</i>	<i>USA (B)</i>	<i>(B) as % of (A)</i>
15	84717002	Winchester/hard disc drives	46,025.39	26,618.96	57.84
16	84719009	Others	1,118.36	645.59	57.73
17	85211009	Others	764.33	429.38	56.18
18	84821002	Adapter ball bearings (radial type)>50 mm or 2 inches bore diameter but <= 100 mm or 4 inches bore diameter	560.91	313.6	55.91
19	84829104	High speed steel balls	147.08	78.5	53.37
20	39206903	Packaging polyester film	3,240.53	1,650.65	50.94
21	85249902	Floppy disc cartridge tape containing computer software	22,170.43	11,231.68	50.66
22	85249904	Recorded CD ROM	16,771.76	8,494.51	50.65
		Total of the above	104,789.43	58,794.86	

Dependency ratio 25 and above but below 50

1	39121101	Cellulose acetate flakes	15.2	7.58	49.87
2	84713009	Other digital automatic data-processing machine weighing <= 10 kg with a keyboard & display consisting of central processing machine	197.3	98.16	49.75
3	85173001	Stroager exchange	2.92	1.42	48.63
4	84615001	Band saw, horizontal	23.42	11.21	47.87
5	39122011	Nitro cellulose (e.g. cellulose nitrate molding powder plasticised)	83.06	39.74	47.84
6	84729001	Stapling machines (staplers)	207.36	97.26	46.90
7	84692001	Braille	187.67	87.37	46.56
8	39206905	Polyester film (excl. packaging/sun/dust)	7,499.12	3,448.66	45.99
9	39129009	Others	62.82	28.73	45.73
10	84631003	Wire making machines	30.89	14	45.32
11	39121209	Others	319.82	144.66	45.23

<i>Sl. No.</i>	<i>ITC HS Code</i>	<i>Items</i>	<i>World (A)</i>	<i>USA (B)</i>	<i>(B) as % of (A)</i>
12	84821006	Ball bearings (radial type) excl. adapter	60.63	27.16	44.80
13	84131109	Others pumps for dispensing fuel	2,044.94	904.06	44.21
14	39123902	Methyl cellulose non-plasticised	17.34	7.58	43.71
15	39264004	Plastic imitation jewellery n.e.s.	127.95	55.78	43.60
16	84079001	Petrol engines	314.96	135.04	42.88
17	85013402	DC motors & DC generators of an output exceeding 1000 KW but not exceeding 2000 KW	38.74	16.58	42.80
18	85438909	Others	327.28	137.25	41.94
19	84822001	Tapered roller bearings (radial type) <= 50 mm or 2 inches bore diameter	1,561.22	637.63	40.84
20	85251002	TV broadcast transmitter	48.09	19.28	40.09
21	84388003	Diffusing machines (diffusers)	4.64	1.85	39.87
22	85438901	Metal detector	26.33	10.33	39.23
23	84604019	Others	98.61	38.59	39.13
24	39172902	Seamless tube of polymers & copolymers of polystyrene	14.2	5.49	38.66
25	85414009	Others	193.54	73.87	38.17
26	84543002	Continuous casting machines	341.68	128.67	37.66
27	85451909	Electrodes of other materials	809.25	304.35	37.61
28	85249903	Recorded compact diskette (audio)	1,252.42	465.32	37.15
29	85359012	Motor control gear & motor starters for DC motors either of constant speed/speed control at above 1000 volts	64.3	23.52	36.58
30	84589902	Automatic, multi-spindle chucking	54.54	19.78	36.27
31	84717001	Floppy disc drives	728.26	262.67	36.07
32	84829115	Rollers	120.55	43.19	35.83
33	39206904	Sun/dust controlled polyester film	3,169.51	1,130.88	35.68
34	85030002	Parts of generating sets	230.07	81.18	35.28
35	84543009	Metallurgical equipments, n.e.s.	47.19	16.22	34.37

<i>Sl. No.</i>	<i>ITC HS Code</i>	<i>Items</i>	<i>World (A)</i>	<i>USA (B)</i>	<i>(B) as % of (A)</i>
36	84822002	Tapered roller bearings (radial type) >50 mm or 2 inches bore diameter but <= 100 mm or 4 inches bore diameter	138.21	45.6	32.99
37	84714102	Large/main frame computer	1,080.68	356.4	32.98
38	39169005	Polyurethanes	38.06	12.52	32.90
39	39123912	Methyl cellulose plasticised	24.12	7.39	30.64
40	85424009	Other hybrid ICs	705.83	216.14	30.62
41	39121202	Cellulose acetate moulding powder	56.27	17.22	30.60
42	84614019	Other gear finishing machines	232.69	70.65	30.36
43	84238901	Beam scale	35.87	10.77	30.03
44	85489001	Unpopulated printed circuit board	583.92	175.08	29.98
45	85479019	Electrical wiring accessories, n.e.s.	6,735.96	2,006.28	29.78
46	84211901	Bowl centrifuges	58.75	17.4	29.62
47	85173004	EPABX/EPAX/intercom	322.91	90.34	27.98
48	39172901	Seamless tube of copolymers of vinyl acetate & vinyl chloride	27.64	7.72	27.93
49	84425001	Impressed blocks and matrices, printing blocks, plates & cylinders	43.16	11.75	27.22
50	85171101	Push button type	705.03	191.8	27.20
51	84213901	Environmental protection equipment	25.68	6.93	26.99
52	84733002	Connectors for computer terminal ports and the like	1,792.41	483.48	26.97
53	84781001	Cigar making machinery (incl. machines equipped with auxiliary packaging device)	35.78	9.46	26.44
54	84212109	Others	193.99	50.99	26.28
55	84589912	Wheel and axle	2.17	0.57	26.27
		Total of above	33,164.95	12,313.55	

<i>Sl. No.</i>	<i>ITC HS Code</i>	<i>Items</i>	<i>World (A)</i>	<i>USA (B)</i>	<i>(B) as % of (A)</i>
<i>Dependency ratio above zero but below 25</i>					
1	84129001	Parts of steam engines incorporating boilers	40.27	10.06	24.98
2	85431909	Others (e.g. cyclotrons)	17.67	4.28	24.22
3	84719005	Un-interrupted power supply (UPS)	3,420.12	817.44	23.90
4	84131901	Water pump for internal combustion engine	342.57	81.42	23.77
5	84483301	Spindles, etc. for cotton spinning machines	190.84	43.69	22.89
6	85447009	Others	173.98	39.31	22.59
7	85175001	PLCC equipment	108.09	24.32	22.50
8	84581904	Automatic, single spindle horizontal chucking	132.36	29.78	22.50
9	85232003	Unrecorded compact disk	244.03	53.89	22.08
10	84659901	Lathes for working wood, etc.	110.53	24.14	21.84
11	85014002	Micro motors	215.47	46.62	21.64
12	84678901	Grease guns, lubricators, etc.	42.16	9.08	21.54
13	84191102	Non-electrical (other than domestic type)	95.87	20.42	21.30
14	85291009	Other aerials/aerial reflectors; parts	1,353.16	284.78	21.05
15	84602902	Internal, grinder	9.83	2.06	20.96
16	84099902	Cranks, transmits (integral parts of engines)	101.3	20.49	20.23
17	84229009	Parts of other machinery	343.73	69.36	20.18
18	84138102	Hydraulic ram	64.43	12.96	20.11
19	84552102	Combination hot & cold rolling mills	341.57	68.31	20.00
20	84597009	Others	487.5	97.37	19.97
21	84145103	Pedestal fans	191.49	37.61	19.64
22	85167909	Others	58.97	11.46	19.43

<i>Sl. No.</i>	<i>ITC HS Code</i>	<i>Items</i>	<i>World (A)</i>	<i>USA (B)</i>	<i>(B) as % of (A)</i>
23	84742001	Crushing / grinding machines for stone & mineral	165.53	31.89	19.27
24	85021305	Generating sets with a diesel engine of an output exceeding 10000 KV	80.14	15.3	19.09
25	84099111	Parts of petrol engines excl. for motor	437.3	83.03	18.99
26	85471001	Porcelain bushings below 6.6 KV	33.26	6.3	18.94
27	84136001	Gear type pumps	78.84	14.63	18.56
28	84629101	Hydraulic extension	123.12	22.84	18.55
29	85113001	Distributors	3.09	0.57	18.45
30	85199901	Tape recorder (other than cassette type)	11.04	2.02	18.30
31	84149004	Parts of industrial fans, blowers & the like	79.29	14.07	17.74
32	85451101	Electrodes of carbon used for furnaces	4,557.18	807.84	17.73
33	84615005	Hack saw	8.74	1.53	17.51
34	84629109	Others	366.94	63.91	17.42
35	84137001	Single & multistage chemical & process pumps	88.96	15.44	17.36
36	85211003	Audio video mixing machine	144.64	25.02	17.30
37	84821004	Ball baring (radial type) excl. adapter ball bearing	348.39	59.69	17.13
38	84186909	Others	253.03	42.93	16.97
39	84589908	Crank shaft	171.79	29.05	16.91
40	85068002	Nickel cadmium chargeable (pencil battery)	144.48	24.36	16.86
41	85413009	Others	50.73	8.4	16.56
42	84624909	Other punching & notching machines	49.64	8.01	16.14
43	84322901	Rotary hoes	10.82	1.74	16.08
44	39231002	Watch box, jewellery box, and similar container of plastics	54.55	8.53	15.64

<i>Sl. No.</i>	<i>ITC HS Code</i>	<i>Items</i>	<i>World (A)</i>	<i>USA (B)</i>	<i>(B) as % of (A)</i>
45	85489009	Other machinery & appliances	659.59	94.3	14.30
46	84633003	Wire winding machine (excl. electric-coil wind)	53.73	7.5	13.96
47	84589929	Centre lathes, others	972.37	134.76	13.86
48	84602901	Cylindrical, plain & universal	67.67	9.36	13.83
49	84314301	Parts of boring/sinking machinery, self-propelled	359.56	49.49	13.76
50	85123009	Others	48.03	6.6	13.74
51	85131005	Torches	12.01	1.63	13.57
52	84639009	Others	164.98	22.28	13.50
53	85279003	Pagers	7,606.92	1,021.57	13.43
54	84836009	Others	218.06	29.22	13.40
55	84383001	Sugar cane crushers	95.37	12.65	13.26
56	84717009	Others	130.27	17.27	13.26
57	85122009	Others	574.9	74.98	13.04
58	39122001	Nitrocellulose (e.g. cellulose nitrate moulding powder) plasticised	363.99	47.36	13.01
59	84484901	Parts of cotton weaving machinery	68.46	8.89	12.99
60	84248901	Painting equipment incl. electrostatic phosphate, powder coating equipment and other equipment	150.6	19.04	12.64
61	84099906	Piston assemblies	39.78	4.99	12.54
62	84521001	Sewing machines - complete, with stand/table	274.49	33.55	12.22
63	84440009	Others	85.98	10.49	12.20
64	85333901	Potentiometers	10.86	1.32	12.15
65	85252001	Two way radio communication equipment	5.38	0.65	12.08
66	39122019	Others — plasticised	233.86	27.94	11.95
67	85088009	Others	88.18	10.3	11.68
68	85068009	Others	1,412.76	159.81	11.31

<i>Sl. No.</i>	<i>ITC HS Code</i>	<i>Items</i>	<i>World (A)</i>	<i>USA (B)</i>	<i>(B) as % of (A)</i>
69	84539002	Parts of leather tanning & curing machine	20.6	2.33	11.31
70	84282002	Conveyors, excl. belt conveyors	86.46	9.73	11.25
71	84849001	Asbestos metallic packaging & gaskets (excl. gaskets of asbestos board reinforced with metal gauze/wire)	55.71	6.21	11.15
72	85399001	Parts of fluorescent tube lamps	163.71	17.87	10.92
73	84552101	Hot rolling mills	199.2	21.69	10.89
74	39261001	Plastic sticker whether not printed embossed	203.12	21.97	10.82
75	39205901	Polyacrylate sheets	55.8	5.94	10.65
76	85354002	Voltage limiters	140.52	14.87	10.58
77	85334001	Potentiometers	59.6	6.28	10.54
78	84137003	Horizontal self priming pumps	39.57	4.1	10.36
79	39169007	Polypropylene	209.49	21.37	10.20
80	84099106	Piston assemblies	242.46	24.29	10.02
81	85462024	Porcelain pin insulators above 66 KV	44.27	4.41	9.96
82	84798901	Coke oven plants	75.78	7.4	9.77
83	85173005	Data cmnctn equipment including intrfc / mltpl	163.41	15.84	9.69
84	39094004	Ketonic resins	41.08	3.97	9.66
85	84542002	Ingot moulds	40.41	3.83	9.48
86	85021301	Generating sets with diesel engines with an output exceeding 373 KV & 1000 KV	347.28	32.05	9.23
87	84281001	Lifts for goods & persons	155.05	14.12	9.11
88	85249901	Recorded video cassettes	30,184.91	2,743.43	9.09
89	84328009	Others	325.67	29.56	9.08
90	84461003	Other cotton weaving machines	30.19	2.67	8.84
91	85334009	Others	118.76	10.08	8.49
92	84597001	Die-type (screwing machines)	25.52	2.12	8.31

<i>Sl. No.</i>	<i>ITC HS Code</i>	<i>Items</i>	<i>World (A)</i>	<i>USA (B)</i>	<i>(B) as % of(A)</i>
93	84631002	Tube drawing machines	6.57	0.54	8.22
94	85173009	Others	838.6	68.32	8.15
95	85351002	Switch fuse units of switch rating above 15 amps high rupturing capacity/rewirable	23.27	1.89	8.12
96	85462001	Porcelain discs & strings below 6.6 KV	615.16	49.62	8.07
97	84211909	Other centrifuges	919.56	73.92	8.04
98	39261009	Others	412.64	32.99	7.99
99	84682001	Gas-operated welding/cutting machines	111.57	8.77	7.86
100	85353009	Isolating and make-&-break switches of other materials	721.2	55.47	7.69
101	84079002	Kerosene engines	292.7	22.44	7.67
102	84149002	Parts of free-piston generators of gas turbine	44.02	3.37	7.66
103	84136002	Screw type pumps	46.12	3.43	7.44
104	39069001	Acrylic resins	128.5	9.51	7.40
105	84452019	Other textile fibres spinning machines	3,521.85	259.09	7.36
106	84741001	Sorting, screening, washing machines, etc. of coal	48.09	3.53	7.34
107	84849002	Spiral wounds metallic gasket & heat exchangers	93.81	6.84	7.29
108	39263001	Cellulose adhesive tapes	219.33	15.97	7.28
109	84509009	Other parts of household laundry type machines	188.24	13.7	7.28
110	84716019	Others	62.68	4.44	7.08
111	84829103	Special stainless steel balls	44.1	3.09	7.01
112	85354001	Lightning arresters	626.95	43.25	6.90
113	84435901	Flat bed printing presses machinery	224.26	15.43	6.88
114	85122002	Automobile lighting equipment	147.67	10.07	6.82
115	85462011	Porcelain post insulators below 6.6 KV	86.73	5.86	6.76

<i>Sl. No.</i>	<i>ITC HS Code</i>	<i>Items</i>	<i>World (A)</i>	<i>USA (B)</i>	<i>(B) as % of (A)</i>
116	39069002	Polyacrylate moulding powder	24.91	1.64	6.58
117	85442023	Rubber insulated cables & flexes	2.74	0.18	6.57
118	85023901	Complete generating sets with steam engines	83.62	5.11	6.11
119	84742009	Other crushing/grinding machines	247.94	15.07	6.08
120	85015209	Other types of AC motors	41.92	2.36	5.63
121	84029009	Parts of other steam & vapour generating boilers	481.77	27.04	5.61
122	84137006	Submersible pumps	519.77	28.96	5.57
123	85152101	Automatic spot welding machinery	26.15	1.42	5.43
124	84198908	Mixing & homogenising equipments for chemical industry	329.82	17.75	5.38
125	84798906	Air humidification & de-humidification equipments/plant	181.53	9.68	5.33
126	84238109	Others	54.05	2.88	5.33
127	39231001	Plastic container for audio/video cassette	146.15	7.78	5.32
128	84099912	Component parts of diesel engine, excl. outboard	695.66	36.96	5.31
129	84596909	Others	605.3	31.93	5.28
130	84581901	Automatic, single spindle horizontal bar, Swiss type	123.91	6.52	5.26
131	84829114	Needles	39.47	2.04	5.17
132	39231009	Other boxes, cases, etc. of plastics	565.91	29.18	5.16
133	39263009	Others	64.67	3.32	5.13
134	84435919	Others	746.74	37.35	5.00
135	85389009	Other parts and accessories of controlling monitoring instruments for non-diagnostic use	282.55	13.98	4.95
136	84461009	Others	516.7	25.56	4.95
137	84198903	Water treatment plant	468.71	22.96	4.90
138	84631009	Others	132.32	6.48	4.90
139	84452009	Cotton spinning machines, n.e.s.	317.41	14.88	4.69

<i>Sl. No.</i>	<i>ITC HS Code</i>	<i>Items</i>	<i>World (A)</i>	<i>USA (B)</i>	<i>(B) as % of (A)</i>
140	84485101	Sinkers, etc. of cotton hosiery machines	43.81	1.98	4.52
141	85199903	CD (audio compact disc player)	7.84	0.35	4.46
142	84798905	Tea-leaf cutting/rolling machinery	1,428.78	63.31	4.43
143	84383002	Sugar manufacturing machinery (excl. centrifuges)	1,423.05	60.24	4.23
144	84825001	Radial type roller bearings, excl. tapered	692.19	28.85	4.17
145	84148001	Gas compressors	342.34	13.31	3.89
146	39189001	Floor coverings of linoxyn	106.8	3.84	3.60
147	85441101	Winding wire of enameled copper	316.51	11.13	3.52
148	84131102	Oil pump for internal combustion engines	95.72	3.34	3.49
149	84135002	Metering & dosing pumps	5.01	0.17	3.39
150	85023909	Complete generating sets, n.e.s.	1,768.06	57.45	3.25
151	85441102	Winding wire of insulated copper	342.65	10.5	3.06
152	84379002	Parts of rice mill machinery	455.46	13.74	3.02
153	84716005	Dot matrix printer	385.77	11.48	2.98
154	84571001	Machining centres horizontal	182.32	5.41	2.97
155	85153909	Others	88.56	2.61	2.95
156	84136009	Others	174.64	5.09	2.91
157	84484101	Shuttles of cotton weaving machinery	56.38	1.55	2.75
158	84609001	Polishing & baffling machines	255.94	6.75	2.64
159	85291002	Dish antenna	184.42	4.77	2.59
160	85168009	Others	23.23	0.6	2.58
161	39199009	Others	472.15	11.75	2.49
162	85251009	Others	119.08	2.87	2.41
163	84212101	Ion exchanger plant/apparatus	1,309.97	31.47	2.40
164	84368009	Others (incl. bee-keeping machinery)	21.86	0.51	2.33
165	85279001	Radio communication receivers	136.46	3.17	2.32
166	84596109	Others	378.39	8.39	2.22

<i>Sl. No.</i>	<i>ITC HS Code</i>	<i>Items</i>	<i>World (A)</i>	<i>USA (B)</i>	<i>(B) as % of (A)</i>
167	84511009	Dry cleaning machines for other textile	315.2	6.83	2.17
168	84462109	Others	130.32	2.73	2.09
169	85269105	VHF omni range equipment	267.24	5.51	2.06
170	85168001	Heat shrinkable component	155.49	3.19	2.05
171	85361001	Switch fuse units of switch rating up to 15 amps, rewirable	245.87	4.99	2.03
172	84629914	Power presses	222.27	4.45	2.00
173	84743101	Concrete mixers	172.58	3.44	1.99
174	84145901	Air circulator	128.02	2.5	1.95
175	85414001	Photocells	43.72	0.84	1.92
176	84294001	Road rollers up to 5 tonne capacity	128.6	2.43	1.89
177	84138101	Gas pumps	63.7	1.16	1.82
178	85442022	Plastic insulated cables & flexes	309.72	5.57	1.80
179	84472019	Knitting machines, n.e.s.	300.59	5.23	1.74
180	84792001	Oil seed crushing/grinding machinery (incl. purifying tanks)	538.56	9.14	1.70
181	85351004	High rupturing capacity fuses	13.27	0.21	1.58
182	84483309	Spindles, etc. for other textile fibres spinning machine	578.44	9.11	1.57
183	84542003	Moulding machines	241.11	3.79	1.57
184	84713001	Personal computer (laptop, palmtop, etc.)	162.45	2.55	1.57
185	85424001	Memory board	34.55	0.54	1.56
186	85359014	Junction boxes (bus bar)	150.21	2.31	1.54
187	85462031	Porcelain solid core insulators (h.t.)	314.39	4.69	1.49
188	84145909	Others	112.47	1.6	1.42
189	84238909	Others	195.5	2.38	1.22
190	39031909	Polystyrene in primary forms, n.e.s.	2,328.13	27.96	1.20
191	84082001	Engines of cylinder capacity<=50 cc	183.12	2.13	1.16

<i>Sl. No.</i>	<i>ITC HS Code</i>	<i>Items</i>	<i>World (A)</i>	<i>USA (B)</i>	<i>(B) as % of (A)</i>
192	39011009	Other LDPE	1,257.53	14.52	1.15
193	84621001	Hammers, steam/air, single frame	66.98	0.77	1.15
194	85291001	Aerial/antenna	440.36	4.8	1.09
195	84021901	Firetube, horizontal (Lancashire) boilers	421.43	4.59	1.09
196	84514029	Other washing, cleaning and drying machinery	460.74	4.96	1.08
197	84099907	Fuel nozzles	171.3	1.83	1.07
198	85442012	Power cable with aluminum	628.16	6.5	1.03
199	84484119	Other shuttle (excl. those for weaving machinery)	118.76	1.19	1.00
200	84479003	Machines for preparing yarns for manufacture of tulle, lace, etc.	115.47	1.05	0.91
201	84602919	Others	133.25	1.17	0.88
202	84490001	Machinery for manufacture of fishing of felt in piece /in shapes (incl. felt hat-making machines & hat-making blocks)	30.89	0.26	0.84
203	84825002	Radial type roller bearings, excl. tapered <= 50 mm or 2 inches bore diameter	192.51	1.6	0.83
204	85462041	Telegraph & telephone insulators of porcelain (shackles, reels, cartons, cleats) (L.T.)	89.94	0.67	0.74
205	84436001	Roller composition	175.16	1.29	0.74
206	84304102	Petroleum & gas well drilling equipment	6,861.9	48.33	0.70
207	39172309	Others	322.14	2.18	0.68
208	39011001	Linear low density polyethylene (LLDPE)	1,063.39	6.87	0.65
209	84314902	Parts of ships derricks and cranes	214.71	1.25	0.58
210	85332901	Electrical resistance wire, bare, nichrome	40.94	0.23	0.56
211	85334003	Thermostats	109.31	0.57	0.52
212	84021909	Others	1,517.85	7.69	0.51

<i>Sl. No.</i>	<i>ITC HS Code</i>	<i>Items</i>	<i>World (A)</i>	<i>USA (B)</i>	<i>(B) as % of (A)</i>
213	84836002	Fluid coupling	69.86	0.35	0.50
214	84192009	Sterilizers, n.e.s.	295.94	1.46	0.49
215	84198901	Pressure vessels reactors, columns/towers	387.69	1.73	0.45
216	85369004	Junction boxes (bus bar)	107.92	0.43	0.40
217	85269101	Direction measuring equipment	185.6	0.65	0.35
218	39042202	PVC resins by suspension method	2,581.36	7.64	0.30
219	85252005	Cellular telephone	174.69	0.46	0.26
220	84631001	Wire & metal ribbon drawing machines	230.59	0.55	0.24
221	84483901	Combs for cotton textile machinery	80.21	0.06	0.07
222	85016401	AC generators (alternators) of an output >750 KV but <=2000 KV	148	0.1	0.07
223	85353001	Isolating switches & make-&-break switches of plastic	145.92	0.09	0.06
224	84389009	Parts of other food processing machinery	242.16	0.09	0.04
225	39042101	PVC by emulsion method resins (other plasticised PVC)	433.17	0.12	0.03
226	85171103	Cordless	249.13	0.01	0.00
227	39042201	PVC by emulsion method resins (other non-plasticised PVC)	796.46	0.01	0.00
		Total of Above	116,911.48	9,596.58	
346		Total of Above Four types	267,225.84	92,051.1	

Source: India Trades – CMIE, Mumbai.

INDIAN INSTITUTE OF FOREIGN TRADE

OCCASIONAL PAPERS

1. Aneel Karnani, "Competing for the Indian Market: Local Firms vs. MNCs" (January 1996)
2. B. Bhattacharyya and Satinder Palaha, "Foreign Direct Investment in India: Facts and Issues" (January 1996)
3. B. Bhattacharyya and Vijaya Katti, "Regional Trade Enhancement: SAPTA and Beyond" (February 1996)
4. Satinder Palaha and H.L. Sharma, "Towards Economic Integration through Regional Trade Blocs" (April 1996)
5. B. Bhattacharyya and Somasri Mukhopadhyay, "Duty Free Access to India within SAPTA Framework" (July 1996)
6. B. Bhattacharyya, Somasri Mukhopadhyay and Bimal K. Panda, "India's Trade Liberalization Since 1991: A Statistical Appraisal" (December 1996)
7. Satinder Bhatia, "Indian Garments Industry in the Post-MFA Period" (February 1997)
8. H.A.C. Prasad, "Impact of Economic Reforms on India's Major Exports: Policy Guidelines" (May 1997)
9. Shahid Alikhan, "Intellectual Property Rights in the Present Indian Context" (July 1997)
10. H.A.C. Prasad, "India's Competitiveness in Export of Garments in the MFA Phase-Out and Post-MFA Phase-Out Periods" (September 1997)
11. Justice P.N. Bhagwati, "Democracy and Human Rights" (December 1997)
12. B. Bhattacharyya, "Currency Turmoil in South East and East Asia: Impact on India's Exports" (February 1998)
13. B. Bhattacharyya, "Chinese Response to Asian Economic Crisis: Implications for India's Trade" (March 1998)
14. B. Bhattacharyya and L.D. Mago, "Trade and Environment Issue in the WTO: Indian Experience" (October 1998)
15. B. Bhattacharyya and Vinayak N. Ghatate, "Advent of Euro: Implications for India" (December 1998)
16. B. Bhattacharyya, "Non-Tariff Measures on India's Exports: An Assessment" (October 1999)



INDIAN INSTITUTE OF FOREIGN TRADE

IIFT BHAWAN, QUTAB INSTITUTIONAL AREA
NEW DELHI-110016

Phones : 6965124, 6965051, 6965300, 6966544, 6966563

Fax : 91-11-6853956, 6867841, 6867851

Website: www.iift.edu