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## India as exporter of engineering goods

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Even amongst the usually well-informed foreign observers it is generally not known that during the past two decades or so Indian industry has been undergoing a wide-ranging structural transformation. Since 1951 industrial output has been rising at the compound annual rate of about six and a half per cent. But more important than that is the fact of an increasing share of machine-building industries in the total industrial output. In 1950-51, on the eve of the launching of the first Five-Year Plan, machine building industries contributed only 8 per cent of the national income generated in the manufacturing sector. Currently this figure is placed at around 22 per cent. Just a decade ago, India's exports of engineering goods were negligible at Rs 30 million (US \$ 4 million). During 1968-69, exports of engineering goods are expected to exceed the level of Rs 750 million (US \$ 100 million). The year 1968 may go down in India's industrial history as the year when the country achieved a breakthrough in the export of engineering goods inasmuch as during the course of this year these exports will have risen by 100 per cent. India now exports such sophisticated engineering goods as teleprinters, telephone equipment, transmission towers, electric motors, switch gears, transformers, machine tools, railway wagons, EOT cranes, and textile machinery.

#### **Entry into the World Market**

What lies behind this spurt? Between 1951 and 1968 the total industrial output has gone up three-fold in real terms. Within the industry as a whole, however, different branches have developed at varying rates. The engineering industries were among those which recorded the fastest growth. Between 1951 and 1967, the composite index for engineering goods (covering basic metal industries, metal products, electrical and non-electrical machinery and transport equipment) recorded a spectacular increase from 30.2 in 1951 to 194.3 in 1967 (base 1960 = 100). This meant an eight-fold rise during the period in real terms. The total value of output of these goods is currently placed at Rs 22,500 million (US \$ 3,000 million). Even though in per capita terms the output of these industries is rather small, in absolute terms, India already ranks as a world's major producer of engineering goods. Its entry into the world market was to be expected. Today, engineering goods exports run at the rate of 6 per cent of its total exports.

Partly, this phenomenon can be traced to the recent recession in the engineering industries. This recession started in about 1966. It was severest during 1967. Faced with a wide gap between the demand and the installed capacity (which kept on increasing even during the worst period of recession), the industry realised that its survival itself would depend on finding export outlets. The industry took up this challenge boldly

## **India as Exporter of Engineering Goods**

by Vadilal Dagli, Bombay \*

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and supported by a series of helpful Government measures it launched upon a vigorous export drive.

Today, Indian engineering goods are being sold in as many as 100 countries including the sophisticated markets of Europe and the US. This is a proof in itself of their ability to compete in price and quality, though further cost-reduction and higher sophistication still remain as two major problems with the engineering industry.

#### **Marked Variations In Total Exports**

So far as quality is concerned, India's success can be traced to two factors. Firstly, India has a very large army of engineers and technologists: there are about one hundred thousand of them, most of whom are engaged in the engineering industries. Secondly, India had the advantage of borrowing straightaway the most advanced technologies from abroad. By now, over 2,800 agreements have been signed with leading foreign firms for financial and/or technical collaboration. More than half of these are connected with engineering industries. As a result, Indian engineering industries have been able to acquire a very high degree of technological sophistication.

Indian exporters have secured orders in global competition from such countries as the US, the UK, New Zealand, Brazil, Kuwait, Burma, Malaysia, Thailand, Ceylon, Nigeria and South Korea. Although there has been an overall improvement in the total exports of engineering goods to various countries of the world, their relative shares in the total exports have shown marked variations. Those to Asian countries rose fourfold to \$ 25 million during the first five months of 1968 from \$ 6 million during the corresponding period of 1967. The percentage share of Asian countries in the total exports of Indian engineering goods which was around 47 during April-August 1967 went up to 58 during April-August 1968. Especially, the West Asian countries contributed substantially

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to this improvement. The share of West Asian countries which stood at 18 per cent during April-August 1967 shot up to 34 per cent in April-August 1968.

**Table I**

**Trends in Indian Engineering Goods Exports**  
(in million US dollars)

Year	Total exports	Total exports of engineering goods	Percentage share of engineering goods in total exports
	1	2	3
1950-51	1,261.8	5.7	0.5
1955-56	1,252.7	9.5	0.8
1960-61	1,387.0	17.9	1.3
1965-66	1,692.5	41.6	2.5
1966-67	1,557.9	31.2	2.0
1967-68	1,620.0	55.2	3.4
1967-68 (April-November)	1,057.7	26.4	2.5
1968-69 (April-November)	1,211.6	67.3	5.6

Although the total exports to African countries increased by 235 per cent to \$ 7.36 million during April-August 1968 from \$ 2.20 million during the comparable period of 1967, their share in the total engineering exports remained more or less the same at about 17 to 18 per cent. Similarly, exports to Europe recorded a rise of 113 per cent to \$ 5.70 million during the first five months of the fiscal year 1968-69 (April to March). However, the relative share of the European countries in the total exports of engineering goods has gone down from 20 per cent during April-August 1967 to 13 per cent in April-August 1968.

**Table II**

**Region-wise Exports of Indian Engineering Goods**  
(value in million US dollars)

Regions	1961-62	% to total export	1967-68	% to total export	Target 1973-74	% to total export
South-East Asia	7.1	44	14.1	25	37.3	13
West Asia	3.9	24	11.6	21	46.7	18
Africa	3.3	20	9.6	16	33.3	12
East Europe	0.1	-	8.8	16	120.0	42
West Europe	0.7	4	4.3	8	14.7	5
North America	0.5	3	3.9	7	21.3	7
Japan	-	-	0.1	-	-	-
Australia and New Zealand	0.3	2	1.9	5	6.7	2.5
Others	0.4	3	0.9	2	6.7	2.5
Grand Total	16.3	100	55.2	100	286.7	100

The most phenomenal growth of exports of Indian engineering goods has been in the direction of East European countries. In 1967-68, these exports totalled as much as Rs 66 million (US \$ 8.8 million) compared to a mere Rs 2 million (less than US \$ 300,000) in 1963-64. In view of the decision of the Soviet Union to purchase a large number of wagons and the increasing interest being shown by other East European countries in Indian engineering goods, these exports to the Eastern

bloc are expected to go up as high as Rs 900 million (US \$ 120 million) by 1973-74.

The world trade in engineering goods will continue to expand substantially in the coming years.

**Table III**

**Commodity-wise Exports of Indian Engineering Goods**

Principal Items	April-November 1967-68 (in million US dollars)	April-November 1968-69 (in million US dollars)	Percentage variation during 1968-69 over 1967-68
1. M.S. pipes, tubes and fittings	3.57	9.24	159.1
2. Electric wires and cables	0.94	7.54	705.6
3. Aluminium ingots	0.20	4.97	2,375.4
4. Railway coaches, wagons and parts thereof	0.48	4.87	923.5
5. Auto and auto parts	2.02	3.97	96.8
6. Bicycles and parts	1.50	3.58	138.9
7. Diesel engines and parts	0.64	2.07	220.7
8. Jute, textiles and knitting machinery	0.71	1.62	128.4
9. Iron and steel castings (all sorts)	1.50	1.59	5.9
10. Dry and storage batteries	0.91	1.53	67.8
11. Electric fans and parts	1.28	1.42	11.4
12. Machine tools	0.67	1.39	106.7
13. Office machinery (data processing machines)	0.86	1.34	54.5
14. Electric accessories and builders' hardware and appliances	0.33	1.00	205.7
15. Electric motors, switch-gear, transformers, etc.	0.22	0.75	238.3
16. Wire ropes	0.38	0.73	93.5
17. Telephone equipment	0.04	0.58	1,498.5
18. Structural fabrication including P.S. tanks	0.26	0.68	164.8
19. Transmission line towers and poles	0.12	0.63	445.7
20. Stainless steel utensils	0.11	0.42	288.5
21. Steel furniture	0.18	0.40	115.3
22. Agricultural implements including agricultural machinery	0.11	0.40	250.8
23. Earth moving equipment (dumper and parts)	-	0.40	-
24. Electrodes and welding equipment	0.07	0.38	444.4
25. Mechanical pumps	0.35	0.35	2.7
26. Sewing machines and parts	0.44	0.34	-22.5
27. EOT cranes	-	0.34	-
28. Water fittings and sanitary fittings	0.20	0.34	72.5
29. Wood screws	0.03	0.33	1,157.6
30. Wire products (other than wire ropes)	0.04	0.29	606.8
31. Tinplate containers	0.09	0.28	232.2
32. Tea machinery	0.21	0.26	21.6
33. Railway track materials	0.29	0.26	-9.9
34. Oil drill machinery	0.20	0.24	18.1
35. Air-conditioners, refrigeration and water-coolers	0.02	0.16	587.9
36. Electric lamps and fluorescent tubes and fixtures	0.06	0.14	112.4
37. Tractors and parts	0.02	0.13	626.9
38. Hoisting and lifting machines	0.03	0.10	207.1
Total of above items	19.51	55.58	184.9
Others	6.91	11.75	70.0
<b>Grand totals</b>	<b>26.42</b>	<b>67.33</b>	<b>154.8</b>

The main beneficiaries will be the advanced countries whose sophisticated engineering industries are backed by costly research and development programmes. The one significant point that has, however, emerged in recent years is that quite a substantial part of this trade is on deferred payment basis particularly where developing countries are concerned. As between one country and another, the one which is in a position to offer better credit terms has brighter prospects of securing a contract for the supply of engineering goods. This development in its very nature puts a handicap in the way of expansion of exports of engineering goods from such a country as India whose ability to extend attractive credit terms is limited. In any case, it is not possible for it to compete in the matter of credit with such countries, say, as the US, the UK or West Germany.

It is in this context that the Indian engineering industry is perturbed over the new technique of joint financing of projects that the World Bank has initiated recently. The scheme envisages that part of the finance for the project concerned will come from the World Bank and the balance provided by the countries which will participate in the project. Two power projects, the first in Mexico and the second in Colombia, are being currently financed in this way, and for obvious reasons the

participating countries in these projects, besides the World Bank, are Belgium, Sweden, Switzerland, the UK and the US.

At present, the Latin American market is not a big market for Indian engineering goods for various reasons including the fact that there are no direct shipping services between India and these countries. But the Indian engineering industry will run into real difficulties if the World Bank extends the scope of its new technique and brings the main Indian markets of South East Asia, West Asia and Africa within the purview of the scheme.

#### **A Small Fraction of World Exports**

While the exports of engineering goods from India have registered a substantial increase in recent years, its share in the total world trade is still insignificant. In 1966, for instance, world exports of engineering goods were around \$ 59 million. India's share in this trade was just a small fraction of 1 per cent. Plans for increasing India's share in this vast and growing world market are being included in India's Fourth Five Year Plan (1969-1974) and a figure of \$ 287 million is mentioned as a possible target of exports. Even then India's share in the world engineering exports will still be less than 1 per cent.

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