CHAPTER 3

INDUSTRY AND INFRASTRUCTURE

After four years of relatively good performance there was a sharp deterioration in the performance of the industrial sector in 1979-80. The general index of industrial production rose by 7.2 per cent in 1975-76, 9.5 per cent in 1976-77, 3.3 per cent in 1977-78 and 7.6 per cent in 1978-79 yielding an average annual growth rate of 6.9 per cent. In contrast the index for April—February of 1979-80 shows a decline of 0.8 per cent over the same period in the previous year.

3.2 Several factors are responsible for this poor performance, but the most important is the unsatisfactory performance of the infrastructure. There was an acute shortage of power with severe power cuts in many parts of the country. The failure of the monsoon led to a decline in hydel generation and while thermal generation improved compared to the previous year overall power availability in 1979-80 was only slightly better than in 1978-79. However, demand for power had risen considerably not only due to normal demand growth, but also because the drought produced sharply increased demand for power for irrigation. Coal production remained almost stagnant and the problems of coal availability were heightened by the inability of the railways to move sufficient quantities of coal. Shortages of essential inputs such as coal and power led to actual declines in production in a number of key industries such as steel and cement and depressed performance over a wide range of industries. The drought which depressed production in agro-based industries such as sugar and tea which suffered from lower production of sugarcane and tea respectively was another causal factor. Industrial relations posed problems in several industries.

Industrial Production in 1978-79

3.3 Industrial production recorded an increase of 7.6 per cent in 1978-79. The manufacturing sector, which has a total weight of 81 per cent in the index of industrial production grew at the same rate as industry as a whole. Mining and quarrying grew by only 2.0 per cent but this was made up by a 12.1 per cent increase in electricity generation yielding an overall growth rate of 7.6 per cent.

3.4 The step up in overall indsutrial production during 1978-79 reflected a fairly broad based improvement covering most industry groups. Power generation increased by 12.1 per cent because good rainfall permitted high utilisation of the hydro-potential. The food manufacturing industries recorded a growth rate of 13 per cent, largely on account of sugar the production of which increased by 27.4 per cent. A number of other industries also showed high growth. Growth rates over 12 per cent were registered in the case of the non-electrical and electrical machinery groups, metal products, rubber products and the miscellaneous group. Chemicals and tobacco industries recorded growth rates of around 8 per cent and 10 per cent respectively. A notable exception to this picture of all round improvement was the basic metals group which remained almost stagnant.

3.5 A number of individual industries showed reasonably good growth rates during 1978-79. Growth of over 20 per cent took place in sugar and salt, vehicular diesel engines, several items of machinery, tractors, typewriters, air and gas compressores, graphite electrodes and anodes, dry cells, power transformers, winding wires, scooter and tractor tyres, forged hand tools, house service meters, and wrist watches. In the chemical group, output of LDPE tripled, while that of malathion increased by 50 per cent. In the basic metals group, seamless tubes registered an increase of 70 per cent. The aluminium sub-group also fared well and the output of commercial vehicles and jeeps rose by 40 per cent and 33 per cent respectively.

3.6 A few industries recorded growth rates between 10 and 20 per cent during 1978-79. These included flour milling, vanaspati, giant tyres, phosphatic fertilisers, soap, aluminium, nylon filament yarn, bolts, nuts and rivets and wire ropes. On the other hand there was a significant fall in production (of 10 per cent or more) in several cases, including jute manufactures, newsprint, railway wagons, sugar mill machinery, cranes, synthetic rubber and sewing machines.

Industrial Performance in 1979-80

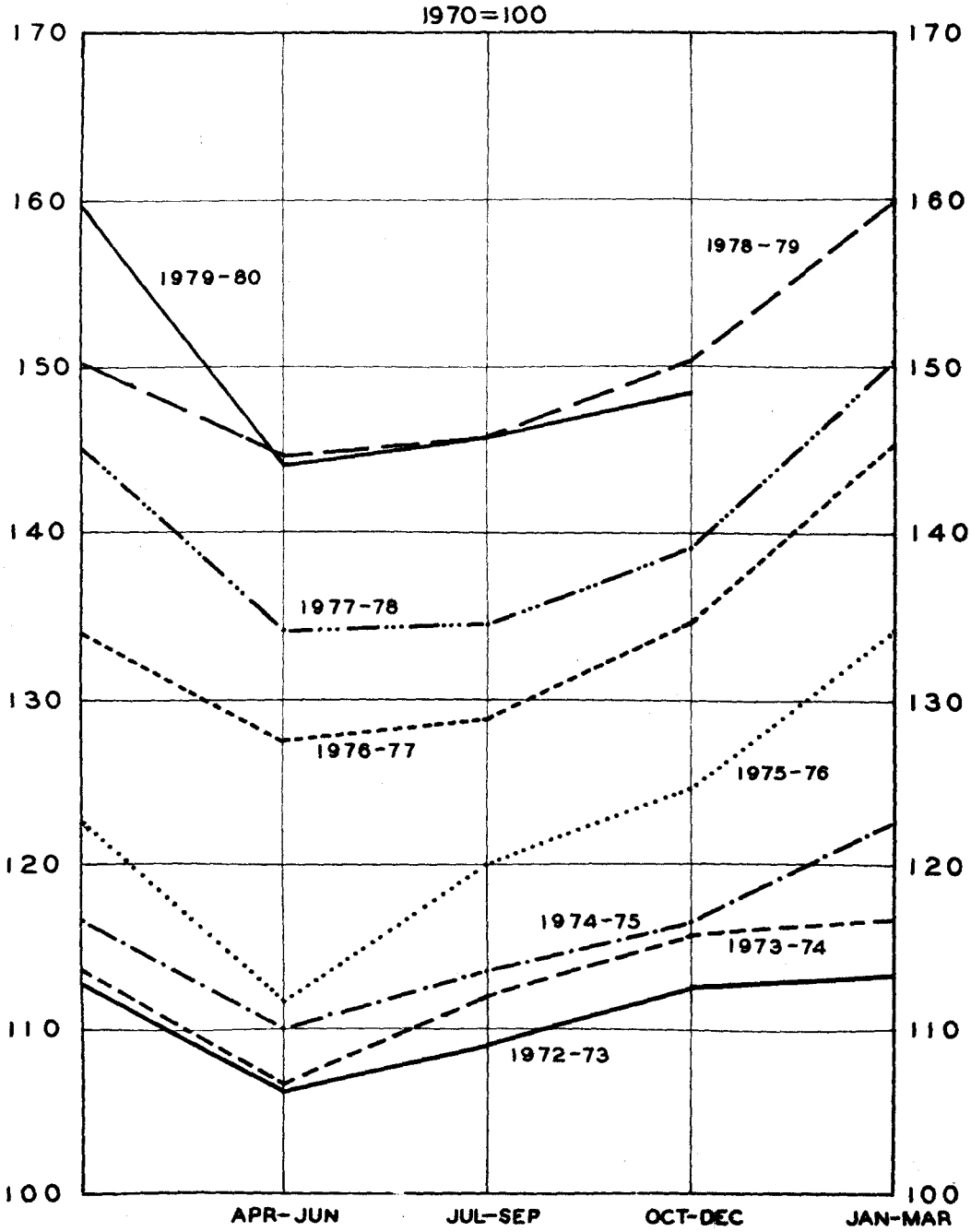
3.7 Industrial production deteriorated sharply in 1979-80. The index of industrial production which throughout 1978-79 had been recording substantial

INDEX OF INDUSTRIAL PRODUCTION

(CRUDE)

QUARTERLY AVERAGES

1970=100



MINISTRY OF FINANCE, ECONOMIC DIVISION.

increases over the same month of the previous year showed a sharp deceleration in April 1979 and thereafter registered a decline in eight of the ten subsequent months.

TABLE 3.1

Percentage Change in Monthly Index of Industrial Production over the corresponding month of the previous year

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar
1978-79 . . .	7.4	11.4	4.7	8.8	7.3	8.7	5.6	10.3	8.1	6.4	7.0	6.0
1979-80 . . .	2.1	—1.7	—0.3	—1.3	1.4	—0.1	1.2	—0.5	—5.1	—3.0	—0.6*	

*Based on Quick Index, C.S.O.

The index for the period April—February 1979-80 shows a decline of 0.8 per cent over that in the corresponding period of 1978-79. Additional information available about production trends in a large number of industries for the full year indicates no appreciable change since then. Industrial production in 1979-80 is, therefore, likely to show a decline of 1.5 per cent.

3.8 The decline in the overall index arises from a decline of 1.5 per cent in the manufacturing sector in the period April—December. Electricity generation increased by 3.7 per cent and mining and quarrying increased by 4.0 per cent over this period.

3.9 The manufacturing sector, experienced a fairly general set-back with ten out of eighteen sub-groups experiencing declines or stagnation in output. Particularly important were the declines in the food manufacturing, transport equipment, non-electrical machinery and basic metals groups. The setback in food manufacturing industries mainly reflected lower agricultural production. Lower sugarcane output led to a decline of 28 per cent in sugar production. Lower production of tea also contributed to the decline in this sector. From April to December 1979 tea showed a decline of 7 per cent as compared with April—December 1978.

3.10 The output of pig iron produced by SAIL and saleable steel from the main plants declined by 11 per cent and 9 per cent respectively and as a result, most of the items based on iron and steel except steel forging and C.I. spun pipes have failed to perform well. Seamless tubes have suffered a decline of about 11 per cent, while structurals and steel castings declined by about 16 and 6 per cent respectively. In the non-ferrous metals group production of aluminium foil declined by about 20 per cent, aluminium by 2.2 per cent while the decline in copper, zinc and lead was taken together 4.1 per cent. Cement production was lower by 8 per cent. In the textiles group, cotton yarn and cotton mill cloth output have declined by 6 per cent due to power cuts and strained industrial relations in the NTC and some other private sector units. Cycle rubber tyres and M.S. bolts, nuts and rivets were lower by 18 per cent.

3.11 Notable increases in production were achieved in some industries such as jute textiles (12 per cent), leather cloth (14 per cent), moped/scooterettes (59 per cent), bicycles (10 per cent), railway wagons (12 per cent), jeeps (13 per cent), grinding wheels (28 per cent), beer (27 per cent) and cigarettes (8 per cent). The output of paper and paper board increased by 2.6 per cent implying a significant improvement over the previous years' performance.

3.12 The chemical and chemical products group showed an overall growth of only 0.6 per cent but within the group performance was mixed. While nitrogenous fertilisers increased by about 6 per cent, phosphatic fertilisers suffered a set back. Similarly while production of caustic soda increased by 1.2 per cent, that of soda ash declined by 9 per cent. A number of items showed high growth rates such as synthetic rubber, low density polyethelene, nylon tyre cord, polyester filament yarn, sulpha drugs, synthetic detergents, tooth powder etc. Items showing a significant decline were soap, paints and varnishes, matches, streptomycin and chloramphenicol.

3.13 Both the electrical and non-electrical machinery groups showed a marked deterioration in performance, with growth rates of 1.4 per cent and —2.6 per cent respectively compared to about 15 per cent growth in each case in the previous year. Large declines were recorded by diesel engines (—39 per cent), cement machinery (—29 per cent), winding wires (—16 per cent), metallurgical machinery (—16 per cent) and sugar machinery (—15 per cent). Some items showed impressive growth rates such as printing machinery (53 per cent), air and gas compressors (22 per cent), machine tools (35 per cent), air conditioners (39 per cent), sewing machines (87 per cent), electric fans (27 per cent) and graphite electrodes and anodes (30 per cent).

TABLE 3.2

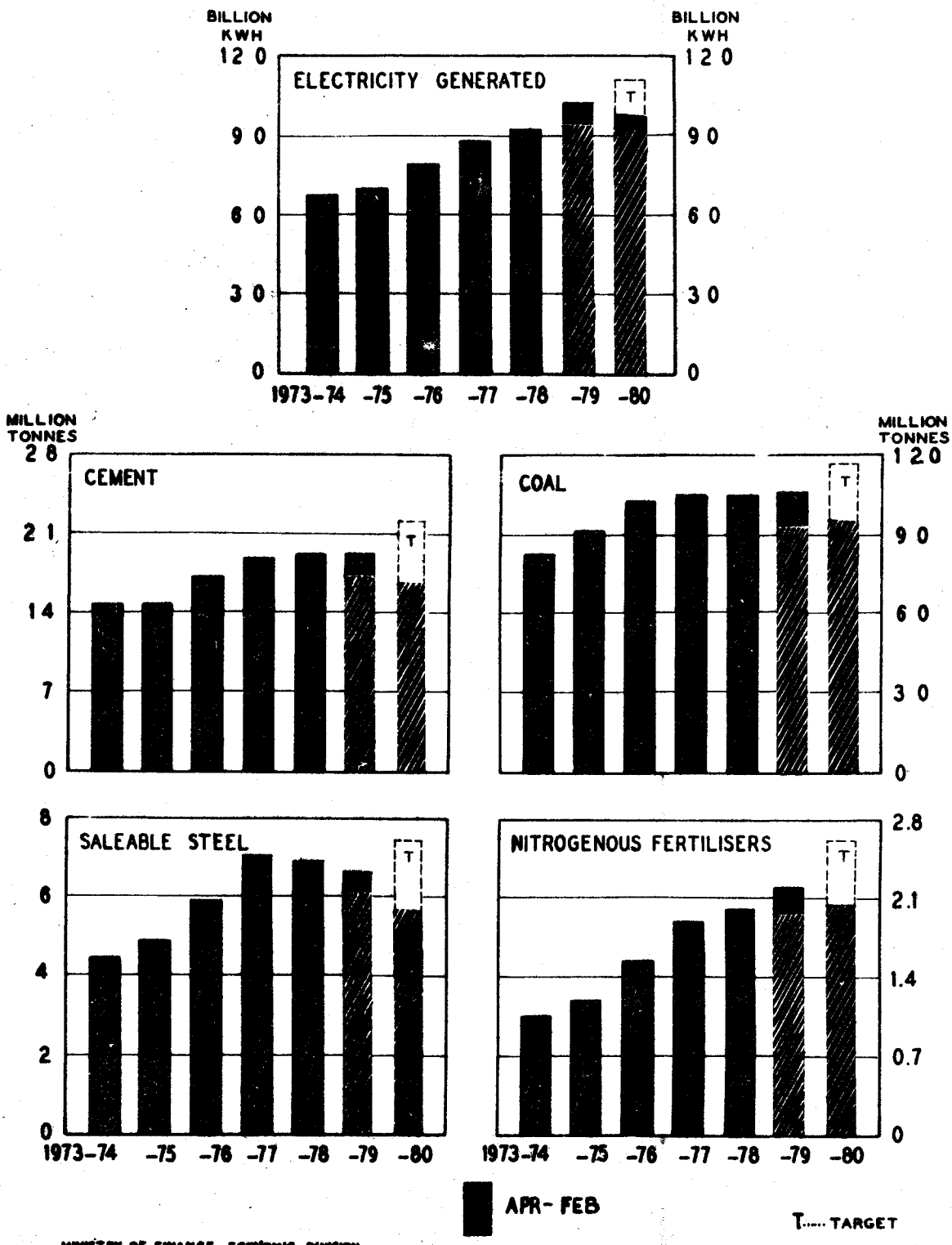
Index of Industrial Production

(Base : 1970 = 100)

Group Code	Industry Group	Weight	1976-77	1977-78	1978-79*	Percent Change		April–December*		
						1977-78 over 1976-77	1978-79 over 1977-78	1978-79	1979-80	Percent change
1	2	3	4	5	6	7	8	9	10	11
20	Food manufacturing industries except beverage industries	7.74	111.9	124.1	140.2	+10.9	+13.0	130.4	117.4	—10.0
21	Beverage industries	0.69	282.9	362.9	379.8	+28.3	+4.7	407.1	272.9	—33.0
22	Tobacco industries	2.21	107.4	107.9	118.5	+0.5	+9.8	115.9	124.6	+7.5
23	Manufacture of textiles	17.43	103.9	104.7	109.7	+0.8	+4.8	110.4	111.4	+0.9
24	Manufacture of footwear, other wearing apparel, etc.	0.34	91.7	73.0	76.1	—20.4	+4.2	74.7	74.3	—0.5
25	Manufacture of wood & cork except furniture.	0.49	119.7	129.9	122.9	+8.5	—5.4	123.0	122.7	—0.2
27	Manufacture of paper and paper products	2.24	111.8	115.2	121.7	+3.0	+5.6	121.2	124.2	+2.5
29	Manufacture of leather & fur products except footwear, etc.	0.32	104.3	92.3	74.8	—11.5	—19.0	75.0	73.5	—2.0
30	Manufacture of rubber products	2.22	126.3	129.9	146.0	+2.9	+12.4	145.6	140.4	—3.6
31	Manufacture of chemicals and chemical products	10.90	161.2	172.3	186.6	+6.9	+8.3	183.9	185.0	+0.6
32	Manufacture of products of petroleum & coal	1.62	125.8	137.0	141.0	+8.9	+2.9	137.7	154.3	+12.1
33	Manufacture of non-metallic mineral products except products of petroleum and coal.	3.33	143.9	148.7	153.9	+3.3	+3.5	151.7	157.5	+3.8
34	Basic metal industries	8.84	145.6	143.1	144.1	—1.7	+0.7	143.1	138.3	—3.4
35	Manufacture of metal products except machinery and transport equipment	2.77	133.6	140.8	157.9	+5.4	+12.1	155.1	161.8	+4.3
36	Manufacture of machinery except electrical machinery	5.55	167.7	181.5	209.1	+8.2	+15.2	202.6	197.4	—2.6
37	Manufacture of electrical machinery apparatus, appliances and supplies	5.30	136.6	141.0	161.6	+3.2	+14.6	152.9	155.1	+1.4
38	Manufacture of transport equipment.	7.39	136.9	122.1	127.8	—10.8	+4.7	123.5	120.3	—2.6
39	Miscellaneous manufacturing industries	1.70	90.1	111.3	125.1	+23.5	+12.4	128.0	123.4	—3.6
Division 2–3 Manufacturing		81.08	131.8	136.2	146.6	+3.3	+7.6	143.9	141.7	—1.5
Division 1 Mining and quarrying		9.69	137.8	141.3	144.1	+2.5	+2.0	135.6	141.0	+4.0
Division 5 Electricity		9.23	162.4	167.6	187.9	+3.2	+12.1	185.5	192.3	+3.7
General Index (Crude)		100.00	135.2	139.6	150.2	+3.3	+7.6	146.9	146.3	—0.4

*Provisional.

PRODUCTION OF SELECTED INDUSTRIES



MINISTRY OF FINANCE, ECONOMIC DIVISION.

3.14 The 4.0 per cent increase in mining and quarrying was the result of an increase in crude petroleum by 13 per cent and an increase of 1.6 per cent in coal (including lignite). Iron ore and manganese ore which have a significant weight in the index also helped in boosting the increase for the mining group. Electricity generation increased by 3.5 per cent which is much lower than the increase of 13 per cent during the comparable period in 1978-79.

3.15 Although information regarding small scale industries is available only with an appreciable time-lag, there is little doubt that this sector continues to make steady progress. The number of registered small units increased from 2.16 lakhs in 1974 to 3.19 lakhs in 1978, and employment therein from 21.6 lakhs to 31.0 lakhs. The gross output of registered units is said to have risen from Rs. 4,900 crores to Rs. 8,500 crores in the same period.

Production Trends of Public Sector

3.16 The performance of public sector units in 1979-80 showed a marked deterioration over the previous year, reflecting many of the problems discussed above. Production in public sector enterprises in the first ten months of 1979-80 is anticipated to be 0.5 per cent lower than in the corresponding period of 1978-79. As is to be expected, there is considerable variation between units in different industries. Petroleum, coal, chemicals and pharmaceuticals and transport equipment industries have shown positive rates of growth whereas steel, heavy engineering, medium and light engineering, and minerals and metals have fared badly. Some of the engineering units taken over from the private sector have old and obsolete machinery and efforts are being made to put them on a sound footing. In most cases, and particularly in the metallurgical industries, shortage of power was an important factor responsible for poor performance. Industrial relations have also been unsatisfactory in a number of units.

3.17 Production increases exceeding 15 percentage points were recorded by the following units, namely, Cement Corporation of India, Instrumentation Ltd. (Kota Unit), Bharat Heavy Electricals (Hyderabad), Hindustan Machine Tools, Richardson and Cruddas, Burn Standard Ltd., Scooters (India) Ltd., FCI (Nangal Expansion), Synthetic Drugs Plant, Hyderabad, Hindustan Insecticides Ltd. (B.H.C. Tech.) and Modern Bakeries. Units which have shown moderate improvement in their levels of capacity utilisation are Instrumentation Ltd. (Palghat), Bharat Heavy Electricals (Tiruchy, Hardwar and Bhopal), Triveni Structurals, Manganese Ore (India) Ltd., Bharat Petroleum and Hindustan Petroleum Corporations (crude run), Nangal Fertilisers (Nangal Expansion), Hindustan Insecticides (DDT), Hindustan Organic Chemicals (Sulphuric acid and formaldehyde), Hindustan Photo Films manufacturing company, Phosphatic Fertilizers (Trombay and Cochin), and Hindustan Antibiotics Ltd. (Penicillin).

3.18 A number of units put in poor performance during April—January 1979-80 with capacity utilisation declining compared to the previous year or remaining at a low level. Units with low capacity utilisation both in 1978-79 and 1979-80 are Bharat Opthalmic Glass, Bharat Heavy Plate and Vessels, Mining and Allied Machinery Corporation, Scooters (India) Ltd., Hindustan Copper (Khetri), Bharat Aluminium, Hindustan Fertilisers (Namrup Expansion, Durgapur and Barauni) and some drug plants. The units which have recorded very sharp set-back in their capacity utilisation during 1979-80 are Fertiliser Corporation of India (Gorakhpur), National Instruments, Calcutta, Mandya National Paper Mill, Braithwaite and Company, Steel Authority of India (Durgapur and Bokaro), NMDC (Iron ore) and Alloy Steel Plant, Durgapur.

3.19 An important development in recent years is the rapid expansion of the heavy engineering industries in the public sector. The value of output of public sector enterprises under the Department of Heavy Industry, recorded an increase of 55 per cent in the three years ending 1977-78. The value of output was estimated at Rs. 878 crores in 1977-78 and was expected to rise to over Rs. 1,000 crores in 1978-79. For 1979-80 the target has been fixed at Rs. 1,270 crores, excluding the turnover of Engineering Project (India) Ltd. (EPI) which is expected to be of the order of Rs. 125 crores.

3.20 Some of the public sector units have emerged as major exporters ; for example, BHEL in respect of power generation and transmission equipment, Heavy Engineering Corporation (HEC) in respect of metallurgical equipment, HMT for machine tools and EPI for construction projects. HMT is assisting some of the developing countries in setting up their own machine tool manufacturing units. HEC is supplying equipment for USSR-aided projects in third countries, EPI which was initially conceived as a consortium of public sector units for construction and supply of steel plants only has acquired sufficient expertise to undertake construction jobs abroad, particularly in West Asian countries. In this respect the progress of BHEL which is the country's largest engineering unit, and the seventh largest in the world in the matter of electrical equipment has been remarkable.

3.21 An important responsibility has been cast upon the public sector to foster the development of ancillary units. The number of such ancillaries has been rising from year to year, and totalled 332 at the end of March 1979. However, the expected turnover of these ancillary units is still fairly modest of the order of Rs. 15 crores. In addition, about 500 small scale units are registered with the public sector undertakings for supply of steel castings, steel forgings, machine components, sheet metal works, etc.

Problems of Infrastructure

3.22 Perhaps the most important constraints upon industrial production in 1979-80 were those arising from the poor performance of key infrastructure sectors such as power, coal and transport (especially the railways and ports). These shortfalls arose because of a combination of short term and medium term factors. Not only was performance in individual sectors poor, but there was also an inadequate response in terms of evolving an effective strategy for improving performance and coordinating between sectors to ensure that priority needs were met.

Power

3.23 The performance of the power sector deteriorated sharply in 1979-80 compared to the previous year. In 1978-79 total electricity generation increased by 12.1 per cent, almost entirely due to a 24.2 per cent increase in hydel generation. Thermal generation increased by only 2.8 per cent. The failure of the monsoon in 1979-80 had a severe adverse effect on the power situation in the country. Water levels in most of the reservoirs were rapidly depleted and hydel generation declined by 2.2 per cent in April—February 1979-80 compared to the same period in the previous year. The performance of the thermal sector was actually better than in the previous year with thermal generation increasing by 6.7 per cent in the same period, but this was not enough to offset the decline in hydel generation and to meet expanding demand. Total power generated in the full year 1979-80 increased by only 2.0 per cent. The shortage of diesel arising from the abnormally high demand from agriculture and the disruption of supplies made it difficult to make up this deficiency through the use of captive generating sets in industry.

3.24 Against this small increase in supply, demand for power rose sharply not only because of normal demand growth but also because of increased demand from agriculture for running electrified pumps to offset the effect of the drought. The result was a sizeable increase in the gap between actual generation and anticipated requirement from 10.3 per cent in 1978-79 to 16.1 per cent in 1979-80. The extent of the shortfall varies across regions but except for the North East, all regions show a sharp deterioration compared to 1978-79. For the country as a whole, the situation in respect of power shortages appears to have deteriorated since 1976-77 when the gap between generation and requirement had been narrowed to 5.8 per cent.

TABLE 3.3

Estimated Shortage as Percentage of Requirement

	1976-77	1977-78	1978-79	1979-80
Northern Region	3.5	19.5	9.7	16.2
Western Region	4.2	11.5	8.3	14.5
Southern Region	10.4	14.3	8.7	13.4
Eastern Region	3.9	17.2	16.0	23.0
North-Eastern Region	19.4	27.0	30.4	24.7
ALL INDIA	5.8	15.5	10.3	16.1

3.25 The steady worsening of the power supply position is not due to a lack of installed capacity. On the contrary installed capacity has grown at a fairly rapid rate and most of the increase in capacity has been in the thermal sector. However, while thermal capacity grew by 12.1 per cent per year in the last three years, actual power generated has increased at an average rate of only 7.9 per cent. Thus percentage of installed thermal (including nuclear) capacity utilised, as measured by the plant load factor, declined from 51.5 per cent in 1977-78 to 48.6 per cent in 1978-79 and further to 45 per cent in 1979-80.

3.26 A number of factors are responsible for the poor performance of thermal power plants and it is not easy to quantify their relative importance. Inadequate supplies of coal, have been one of the factors blamed for poor thermal performance. In fact total consumption of coal by power houses during 1979-80 amounted to 33.58 million tonnes which was 14.2 per

cent higher than the consumption of 29.4 million tonnes in the previous year. However, the increase in power generation is not commensurate with the increased consumption of coal. This is because there has been a significant decline in coal quality. The calorific value of coal supplied to power houses has declined and the ash content has increased. The decline in quality of coal reduced the thermal efficiency and the increased quantity of coal supplied, therefore, turned out to be insufficient. The shortage of coal with power plants can be seen from figures on coal stocks with power houses. During most of 1979-80 stocks with power houses ran substantially below the levels in the previous year. On 1st January 1980, coal stocks with power houses were only 1.12 million tonnes compared to 1.31 million tonnes a year ago.

3.27 In general, the thermal sector has been experiencing plant operation problems which have limited the extent to which growing thermal capacity can be effectively utilised. This is reflected in the significant decline in plant availability due to scheduled maintenance (planned outages) and breakdowns (forced outages). Availability declined from 78 per cent in 1976-77 to 69 per cent in 1979-80 with an increase in both planned and forced outages. The poor quality of coal supplied is itself an important factor affecting plant operation. The increases in the ash content of coal as well as its greater variability leads to boiler damage and is reflected in maintenance problems. In general, maintenance procedures and especially preventive maintenance needs to be greatly improved as also the organisation of supply of spare parts.

3.28 Some of these problems undoubtedly represent teething problems arising from the fact that rapid capacity expansion in recent years has been accompanied by a shift to generators of larger size. About 80 per cent of the addition to capacity in the past three years has been in the form of plants of 200 MW or more whereas prior to that, plant size was around 100 MW. Management of these larger and more complex systems is inherently more difficult and this is reflected in the fact that many of the new plants have taken a considerable time before stabilising. However, there is an urgent need for broad based improvement in management and management procedures.

Coal

3.29 Production of Coal (including lignite) in 1979-80 increased only marginally by 0.9 per cent over the previous year. Against the initial target production of 119 million tonnes (including lignite) actual production was only 106.3 million tonnes showing a shortfall of 11 per cent. Coal production grew rapidly after nationalisation increasing from 80.2 million tonnes in 1972-73 to 104.8 million tonnes in 1976-77. Thereafter, it has stagnated at about the same level. This is principally due to stagnant production from the eastern coal belt. Problems arising from low production were compounded by difficulties in coal movement. The railways were not able to move coal even when it was available.

3.30 A number of factors are responsible for the stagnation in coal output. Coal India Ltd. have estimated the total loss of output based on an estimate of "optimum production", for each of the past few years and identified individual factors responsible for this loss. The loss from optimum production levels has increased steadily. Power shortage and labour troubles are the main causes for the progressively increasing loss of output, especially in 1979-80 which is tabulated below (see table 3.5). Law and order problems have also been a relatively important factor.

TABLE 3.4

Factors Responsible for Loss of Production in Coal India Limited

(Million Tonnes)

	1977-78	1978-79	1979-80
Power Shortage	2.3	3.6	6.9
Absenteeism and Labour Trouble	1.9	5.4	6.3
Explosives Shortage	1.2	0.3	0.6
Rain/Floods	1.0	2.5	0.2
Other Problems (including law and order)	2.1	3.7	3.7
	8.5	15.5	17.7

3.31 Many of the problems of the coal industry are chronic and call for medium term solutions in terms of modernisation of old mines, implementation of new techniques of mining to exploit desposits that are less accessible, investment in washeries for beneficiation of coal etc. However, it is also clear that substantial improvements in output could be obtained if adequate supplies of power could be ensured. For example, the poor performance of DVC and the Bihar State Electricity Board during 1979 was responsible for a significant and avoidable loss in coal output. Improved industrial relations in the collieries undoubtedly would have had a beneficial effect on output.

Transport and Railways

3.32 Transport also became a severe constraint during 1979-80, primarily because the performance of the railways fell well below expectations. Railway performance has been unsatisfactory for the past few years. In terms of tonnes originating of revenue earning traffic, the railways reached a peak of 212.6 million tonnes in 1976-77, and performance has been declining since then. In 1977-78, there was a marginal decline to 210.8 million tonnes followed by a sharp decline to 199.6 million tonnes in 1978-79. The performance during 1979-80 shows a further decline of 3.3 per cent compared with the previous year. Net tonne kms. of traffic remained more or less stationary due to an offsetting increase in the average distance of traffic. The increase in average lead is at least in part due to re-routing of bulk commodities to minor ports in the south due to congestion at the major ports necessitating in turn a longer distance travelled by rail for internal distribution.

3.33 As a result of the inability of the railways to move a sufficient volume of freight there was a noticeable diversion of bulk traffic to road transport. The additional demands placed on road transportation led to an accentuation of the shortage of diesel during the year. Given the high and rising price of petroleum products, this represented an avoidable additional cost to the economy.

3.34 Evidence of inefficiency in use of rolling stock is provided by the figures on wagon turn round time which show an increase while wagon kilometres per day have fallen. This has occurred despite the fact that a larger proportion of goods traffic has been dieselised/electrified. In fact the average speed of goods trains has marginally declined. Part of the explanation may be the increasing emphasis on passenger traffic in recent years. The proportion of passenger train kms. to total train kms. rose from 51.5 per cent in 1975-76 to 54.2 per cent in 1978-79. It is estimated that running a single super fast train pre-empts line capacity of three goods trains.

3.35 To an extent the problems of the railways have been compounded by inadequate investment in the Railways over time. The share of the Railways in gross domestic capital formation declined from about 9.6 per cent during the period 1960-61 to 1964-65 to only 2.3 per cent in 1975-76 to 1977-78. This has been reflected in a much slower rate of additions to rolling stock and track mileage—since 1965-66. The wagon building industry, which has a monthly capacity of over 2500 is producing only 950 wagons or so on the average because of insufficient allocation of funds. This position ought to be remedied, particularly in view of the need for special types of wagons to meet varying needs. The supply of covered wagons needs to be augmented to meet the demand for foodgrain movement and for the transport of commodities like cement. However, capacity limitations were only one aspect of the problem. Industrial relations in the railways also deteriorated and contributed to low productivity.

3.36 Non-performance in these key infra-structure sectors had a severely adverse impact on the economy. Shortage of power had a crippling effect upon the production of steel and cement. From 1970-71, except for 1973-74, there was a steady increase in the production of both saleable steel and cement. The average rates of growth of steel and cement during 1970-71 to 1977-78 were 6.9 per cent and 4.5 per cent respectively. This trend was interrupted in 1978-79. Cement output in 1978-79 remained static at the level reached in 1977-78 and there was a decline of 4.3 per cent in the production of saleable steel. The declining trend in the production of steel and cement became much more marked in 1979-80. In the case of saleable steel the output in 1979-80 declined by 8.4 per cent while in cement it declined by 9.1 per cent.

3.37 Shortages of these key inputs into the economy necessitated imports adding to the import bill. Iron and steel imports are estimated to be 13.2 lakh tonnes in 1979-80 compared with 11.1 lakh tonnes in 1978-79 and 6 lakh tonnes in 1977-78. Exports of steel during the period April—January 1979-80 at 1.67 lakh tonnes was below one-fourth the level of exports at 8.03 lakh tonnes in the corresponding period of 1978-79. Similarly, exports of cement in 1979-80 were stopped and imports of about 1.3 million tonnes were undertaken to fill the gap between demand and supply.

3.38 Although the foreign exchange position permitted imports as a method of closing the gap between demand and supply the constraints imposed by the infra-structure made this a limited solution. Port capacity was strained and this made it difficult to handle bulk imports. Imports of cement was definitely constrained by lack of handling capacity. Supply shortages in importable commodities could not thus be fully overcome through imports because of constraints on non-tradeable sectors. This meant that the foreign exchange reserves were less effective than they would otherwise have been in combating inflation by increasing supply.

3.39 Government has taken a number of steps to check this deterioration in the infra-structure. A Cabinet Committee on infra-structure has been set up under the Chairmanship of the Finance Minister to keep the problems of infra-structure under constant review. The immediate priority was to ensure sufficient supplies of coal to thermal power plants to maintain generation during the summer months in order to offset the anticipated decline in hydel generation. Accordingly coal movement was stepped up sharply. Wagon loadings for power plants were raised from about 2,900 per day in January (about 0.6 per cent below the level of January, 1979) to 3,300 in April (about 19 per cent above the level of April, 1979). Efforts are being made to reach a target level of 3600—3700 wagons per day. Coastal shipping has been revived to move coal from Calcutta and Haldia to Pondicherry and Tuticorin. A target of one lakh tonnes of coal per month moved by coastal shipping is to be achieved progressively. These measures have already led to some improvement in thermal electricity generation in recent months, but the improvement has been swamped by the increasing shortfall in hydel generation reflecting low water levels in the reservoirs.

3.40 The government also took timely action to import additional quantities of diesel oil and kerosene in order to make up the deficiencies created by the disruption of production in the four refineries dependent upon crude oil from Assam. Movement of these commodities has also been speeded up. Between January and April, 1980 kerosene availability increased from 3.3 lakh tonnes per month to 4.3 lakh tonnes and diesel availability from 7 lakh tonnes per month to 11.4 lakh tonnes. This meant that supplies were about 10 per cent higher than in the corresponding month of 1979, inspite of the disruption in supply of crude oil from Assam.

Industrial Relations

3.41 Industrial relations continued to pose serious problems in 1979-80. Man-days lost in 1978-79 amounted to a record figure of 39.1 million. This was in part due to the strike in jute textiles in January and February which accounted for 9.4 million man-days. Man-days lost during 1979-80 also ran at a very high level in the first two quarters of the fiscal year due to the strike in cotton textiles in June and July. However, the situation improved considerably in the third quarter as shown in the table below.

TABLE 3.5

Man-days lost due to strikes and lockouts

(*In million*)

	Ist Qtr.	2nd Qtr.	3rd Qtr.	4th Qtr.	Total
1977-78 .	6.0	7.4	9.4	6.9	29.7
1978-79 .	8.2	6.2	7.1	17.6	39.1
1979-80 .	8.8	8.1	2.7*	n.a.	..

*Provisional

3.42 The unsatisfactory state of industrial relations and its adverse impact on the economy is not adequately captured by the data on man-days lost. Go slows, work to rule, etc. are also important. Furthermore, deteriorating industrial relations in 1979-80 affected key sectors of the economy such as railways, coal, power and banks and the immediate adverse impact on these sectors had widespread secondary effects.

3.43 Efforts were made to minimise work stoppages through mediation, conciliation, adjudication, etc. One post of Deputy Chief Labour Commissioner (Central) was created in Dhanbad region, in an attempt at improving machinery for handling industrial relations in this area. The Ministry of Shipping and Transport has established a Bipartite Negotiating Committee on 14th May, 1980 to look into the wage structure of Port and Dock workers. The recommendations of this Committee will be made retrospectively effective from 1st of January 1980. This measure is expected to reduce labour unrest among Port and Dock workers.

3.44 The bonus issue once again became an important cause of dispute with the Railways and other Departmental undertakings. For workers in the Railways, it was decided to grant productivity linked bonus to all the railway employees drawing pay upto Rs. 1600 p.m. The salient features of the scheme approved by Government, and accepted by the railwaymen, in November 1979, are as follows : The Railwaymens' Federations accept the scheme of Productivity Linked Bonus in lieu of payment of *ex-gratia* amounts as prevalent in the sectors "excluded" from the purview of the Payment of

Bonus Act. The overall productivity will be measured in terms of Railway Productivity indices (*e.g.* Revenue Net Tonne kilometers achieved each year) with greater weightage being given to the goods traffic. The year 1977-78 has been chosen as the base year for making the productivity linked payments—it being the year of best performance in recent years. The base year performance would entitle railwaymen to the payment of 25 days' wages; additional payments will be made if the performance exceeds the base year performance, while reduced payments will be made if the level of productivity is lower than that achieved in the base year. There will be no payments made if the level of productivity falls below 90 per cent of the base year level of performance. An *ad-hoc* payment equal to 15 days' wages will be made to railway employees in respect of 1978-79 during 1979-80 as an earnest for accepting the concept of Productivity Linked Bonus. The regular payment of Productivity Linked Bonus will be effective from the year 1979-80.

3.45 Several proposals for amendment of the payment of Bonus Act in certain respects have been received. Some proposals have been made to consider the conversion of a part of the Bonus or the whole to retirement benefits, unemployment relief and the like. The present Government intends to take a view on all these issues after having due consultations with all interests concerned.

3.46 The Government also agreed that Posts and Telegraph employees would get, fifteen days' wages during 1979-80, as a gesture of goodwill from the Government pending the implementation of Productvity Linked Bonus from 1980-81.

Sickness in Industry

3.47 The problems of sick industries has received pointed attention in several previous Economic Surveys and the spread of sickness in industry raises serious questions about future policy. The number of medium and large units (*i.e.* those enjoying credit limits of Rs. 1 crore and above from the commercial banks) reported as sick stood at 241 at the end of December 1976. It had increased to 344 by the end of December 1978. Total bank credit outstanding to these units increased from Rs. 608.75 crores at the end of December 1976 to Rs. 1060.96 crores at the end of December 1978. The increase in credit outstanding between these dates does not of course represent additional credit extended to sick units as such. Most of the increase reflects the credit outstanding to the additional 103 units which were classified as sick in the later year. A better measure of the spread of sickness in industry is the percentage of credit outstanding to sick units in the total credit outstanding to medium and large units. This shows an increase from 13.9 per cent at the end of December 1976 to 15 per cent at the end of December 1978. Together with the sharp increase in number of units reported sick this points to a steady increase in the incidence of sickness in industry. Most of the sick units belong to a few industries especially engineering, cotton textiles, jute textiles and sugar.

3.48 Both Government and the financial institutions have been concerned at the problem of growing sickness, and attempts have been made to devise suitable measures to tackle it. The approach followed has been to nurse sick units which are potentially viable back to health through a managed programme of financial assistance for modernisation and recovery. The Reserve Bank has taken the initiative in the matter of identifying sick industrial units, and coordinating the lending operations of the term lending institutions and commercial banks. The Sick Units Cell of the R.B.I. serves as a reference point, and tries to bring about coordination in the efforts of banks, financial institutions and Government in solving the problems of sick units. The Cell issues suitable instructions/guidelines to banks as and when necessary.

3.49 An important limitation on the ability to tackle sickness arises from the fact that commercial banks may legitimately consider sick units as poor security risks. An Inter-Institutional Group, set up by the RBI in March 1978, observed in its report that the viability of a unit and its ability to repay dues within a reasonable period, and not security alone, should be the guiding factor in lending. Commercial banks have, therefore, been asked to explore the possibilities of rehabilitating sick units. If they are not able to provide the requisite assistance, they should refer the case to the IDBI which would consider the package of measures necessary for rehabilitating the unit. According to the Group, the difficulties of sick units should not be aggravated by charging penal rates of interest and banks have been asked to adopt a flexible approach in respect of margins, etc. during the nursing period to help revival of sick units. They could apply to the Reserve Bank for grant of exemption from directions relating to margins.

3.50 The general objectives of the policy towards sickness are unobjectionable. There are strong arguments for acting to prevent the collapse of industrial units which are potentially viable but have run into temporary difficulties, especially when these difficulties arise from external factors. However, it is extremely important to ensure that this does not

become an open ended affair in which industrial units can expect to receive extensive financial support and preferential treatment as and when they run into difficulties. There is a danger of encouraging complacency and in some cases even deliberate mismanagement. With the steady growth of sickness in industry these considerations assume increasing importance.

3.51 An earlier approach to combating sickness which was to some extent free from these dangers was the scheme for encouraging the merger of sick but potentially viable units with sound ones. In order to promote such mergers, tax concessions were granted to industrial units willing to take over and revive sick units. However, despite these concessions, entrepreneurs have not come forward to invest significant amounts of their own capital to achieve revival of sick units. It is the tedious procedures which have prevented mergers. Measures will have to be undertaken to encourage merger of sick units with others so that the scheme gains vitality and strength.

Industrial Investment

3.52 The available indicators of industrial investment are at best partial in coverage and in any case not available for the full year 1979-80. These indicators provide mixed evidence of the state of investment activity in 1979-80 as compared to the previous year.

3.53 Consents for capital issues given to non-Government companies during 1978-79 came to Rs. 417.64 crores as against Rs. 305.98 crores in the previous year. Consents during April—December 1979 totalled Rs. 307.64 crores as against Rs. 229.86 crores in the corresponding period of 1978. The picture does not change even if bonus issues are excluded. On the other hand it has to be noted that the bulk of the increase in approvals during April—December 1979 is accounted for by debentures. Moreover, initial issues have recorded some decline which, however, is more than made up by further issues. These developments lead to the conclusion that expansion of existing units is receiving more attention than the setting up of new units. Capital actually raised by non-Government companies in 1978-79 shows a somewhat different picture from the data on consents for capital issues. In 1978-79 capital actually raised declined from Rs. 302.83 crores to Rs. 229.55 crores. Even if allowance is made for bonus issues the picture remains the same. Data for the first quarter of 1979-80 show a further decline. Actual capital raised was Rs. 80.37 crores as against Rs. 88.51 crores in the first quarter of 1978-79.

3.54 The total assistance sanctioned by the All-India Financial Institutions, including U.T.I. and L.I.C., increased from Rs. 1187.41 crores in 1977-78 to Rs. 1369.44 crores in 1978-79, *i.e.* by 15.3 per cent. However, disbursements rose by 32.5 per cent from Rs. 702.83 crores to Rs. 930.93 crores, which partly reflects the need for supplementary assistance arising from increase in the capital costs of projects. For the period April—September 1979 as compared to the corresponding period of 1978, sanctions rose by 43.3 per cent and disbursements by 25.0 per cent. The IDBI, which is the apex institution, registered an increase of 60.7 per cent in sanctions, from Rs. 310.9 crores to Rs. 499.5 crores, and of 16.7 per cent in disbursements from Rs. 219.9 crores to Rs. 256.7 crores. The lower rate of growth of disbursements compared to sanctions in 1979-80 is perhaps indicative of slowing down of acutal investment undertaken in the year, while also indicating that this slowing down may be only of a short-term nature.

3.55 Figures for import licensing of capital goods (CG) and heavy electrical plant (HEP) show buoyancy in medium term investment intentions. Import licences of capital goods registered a decline in 1978-79 but the shortfall (which was entirely on Government account) was more than made up by HEP licences. In April—February 1979-80, C.G. licences have shown a marked increase. But there was a sharp decline in the HEP licences. The total, at Rs. 671 crores, however, was 35.4 per cent higher than the total amount in the corresponding period of 1978-79.

3.56 Another indicator of investment intentions which also indicates buoyancy at least over the medium term is the approvals given by the Capital Goods Committee for import of plant and machinery. In 1978-79 total approvals were Rs. 201.6 crores *i.e.* 35.8 per cent more than the total approvals of Rs. 148.45 crores in the previous year. There is a further improvement by 34.8 per cent in the total approvals during 1979-80 and it reached the level of Rs. 271.85 crores. Thus there is a sustained increase, almost at the same rate as in the previous year. In 1979-80 interest seemed to have focussed on automobiles, textiles other than cotton textiles, engineering, electricals and chemicals, while approvals for cement, ceramics and refractories, electronics and man-made fibres have suffered.

Employment in the Organised Sector

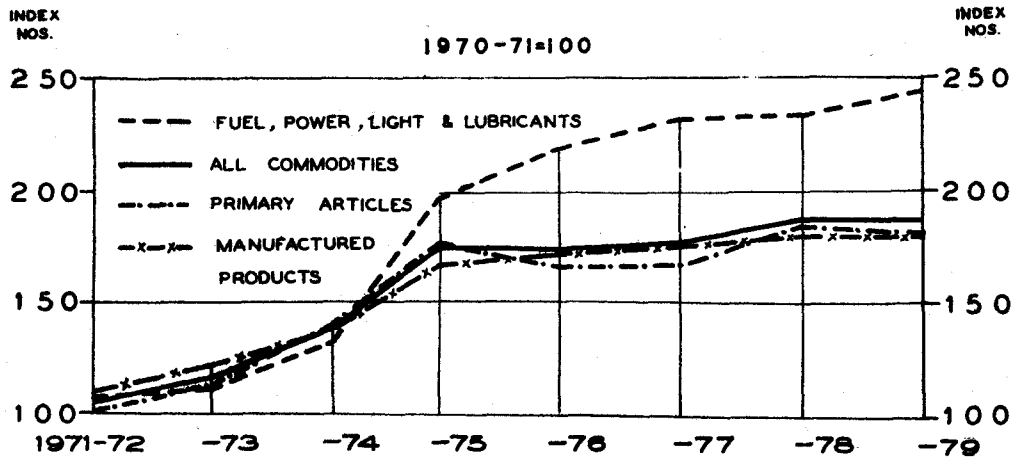
3.57 Employment in the organised sector at the end of March 1979 stood at 196.5 lakhs. These data do not include West Bengal for which figures are not yet available. Compared with the comparable figure for March 1978 they show an increase in employment (excluding West Bengal) of 3.7 per cent in 1978-79. If estimates for West Bengal are included in the March 1979 assuming no change in employment in West Bengal over March 1978, the overall growth rate is reduced to 3.3 per cent. For the public sector the rate of growth of employment would be 3.7 per cent as against only 2.3 per cent for the private sector. In this comparison it should, however, be remembered that there is likely to be some bias in favour of the public sector resulting from the take-over of private sector units during the year.

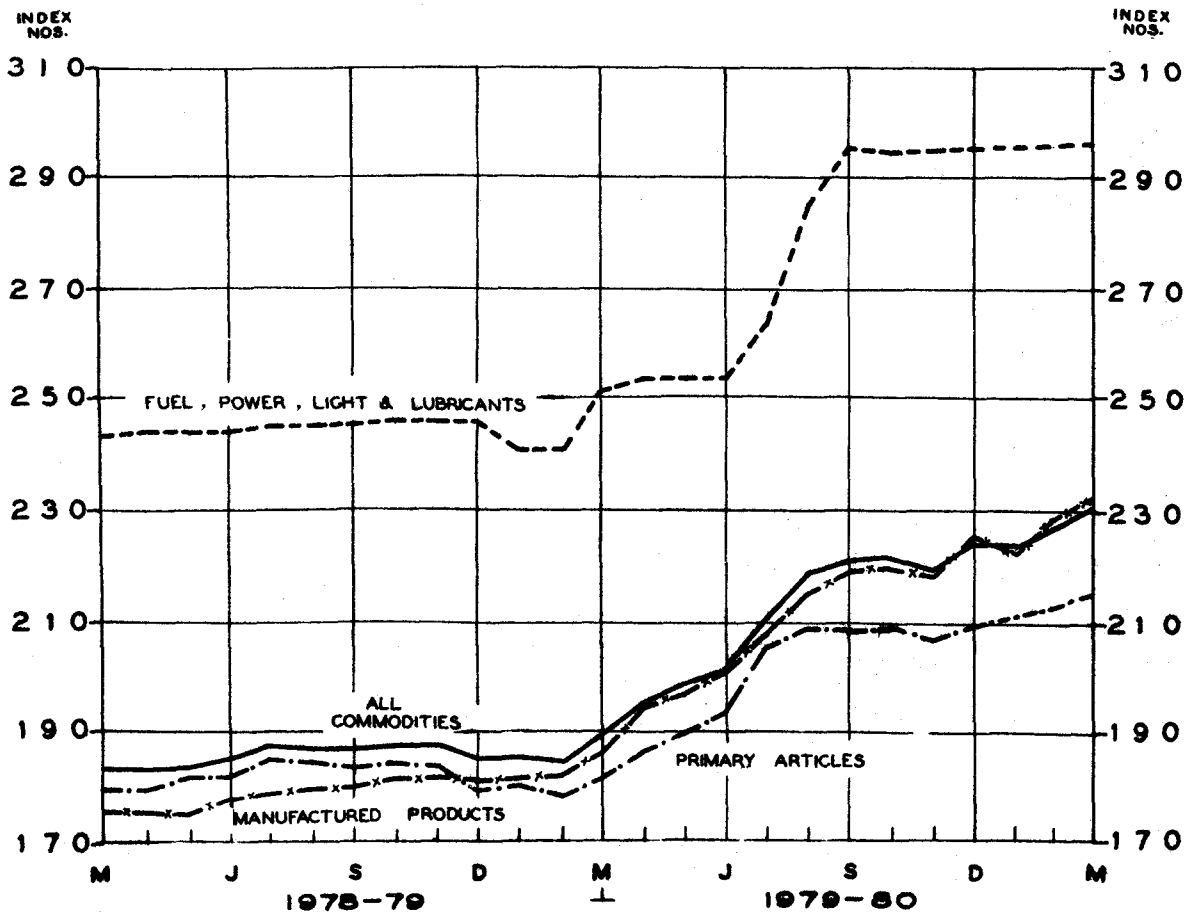
3.58 The number of job-seekers on the live register of the Employment Exchange rose from 13.15 million at the end of January 1979 to 14.44 million a year later, *i.e.*, by 9.8 per cent. This is a significant addition to the ranks of those seeking work. Vacancies notified averaged 73.2 thousand per month during 1979 as against the monthly average of 69.2 thousand in the year 1978. Placements do not, however, seem to have kept pace with the rise in vacancies, having averaged 38.9 thousand in 1979 as against 38.4 thousand the previous year so that the ratio of placements to vacancies declined. This may be indicative of a structural change in the requirements of labour by enterpreneurs towards skills that are in short supply. Furthermore, the supply of labour of particular categories may have tightened specially of such skilled and semi-skilled workers as have been able to find employment in construction projects abroad.

3.59 In summary, 1979-80 was an extremely difficult year for the industrial sector, primarily because of the constraints imposed by infra-structure, especially power, and also because of the depressing effect of lower agricultural production upon agro-based industries. Prospects for the coming year depend crucially upon the likely growth of power supply and also the revival of agricultural output. A favourable monsoon will obviously help on both counts since it will permit improvement in hydro-electric generation from September onwards. This combined with improved performance of the thermal sector should considerably ease the power position. Improved thermal performance depends upon improvements in coal production and movement so that a broad based improvement in infra-structure is a pre-condition for achieving an industrial revival.

3.60 It should be noted that while the role of infra-structure is crucial as the critical constraint in the short run, there are larger medium term issues which remain important and which must be faced in planning for industrial growth over the medium term. These relates to the need to increase the efficiency and competitive strength of Indian industry and in particular to strengthen its export potential. We need to evolve a policy framework which caters to these needs effectively as Indian industry moves to face the challenges of the eighties.

WHOLESALE PRICES





MINISTRY OF FINANCE, ECONOMIC DIVISION.