

# CHAPTER FIVE

## MANUFACTURING AND MINING

Manufacturing and mining sectors of the economy remained relatively stable and their recorded growths were in line with targets set for the first year of the 3<sup>rd</sup> FYDP. Improvement in government fiscal position and surplus in external current account balance, together with monetary policies aimed at financing the required resources underpinning growth, resulted in price and foreign exchange stability and the weakening of inflationary pressures. These factors provided the necessary basis for the support of the manufacturing and mining sectors. According to preliminary data, the value-added for manufacturing and mining sectors in 1379 at 1369 constant prices went up respectively by 8.0 and 4.3 percent. When compared to the average annual growth for the manufacturing and mining sectors projected in the 3<sup>rd</sup> FYDP, respectively, of 8.0 and 5.5 percent, the manufacturing sector performance was on target, while that of mining sector was weaker than projected. The production index of large manufacturing establishments grew by 6.0 percent in this year, compared with the previous year. The performance of other indices also indicates a relative growth in manufacturing and mining activities in the year under review.

In 1379, Rls. 765.9 billion was allocated to manufacturing and mining sectors from the government's budget in order to implement national development projects in the manufacturing and mining sectors and to also carry out industrial research programs. This was a 62.4 percent increase, as compared with the preceding years allocation, of which the greater portion of 40.6 percent was allocated to the mining sector. Moreover, banks and credit institutions extended considerable facilities to the non-public manufacturing and mining sector, thereby increasing the outstanding facilities provided to this sector, with a 30.1 percent rise to reach Rls. 39.4 thousand billion at the end of 1379.

From the Ministry of Industries and Mines statistics, the number of new manufacturing and mining permits granted, the amount of investment and total employment in this sector registered growths of 10.4, 115.0 and 25.7 percent, respectively. This fact is indicative of the private sector's inclination to invest in productive activities and create further new capacities in the manufacturing sector.

Production of major industrial products enjoyed favorable growth, so that out of 83 selected industrial products, 49 items registered an increase in production in which 60 percent showed over 10 percent growth. Moreover, raw steel production and petrochemicals also increased by 4.8 and 7.3 percent, respectively.

With regard to government support policies for non-oil exports, industrial exports showed a marked increase in the year under review, so that the value of industrial exports, with 29.8 percent growth, reached \$1.9 billion, and the unit value of exportable goods, with 32.8

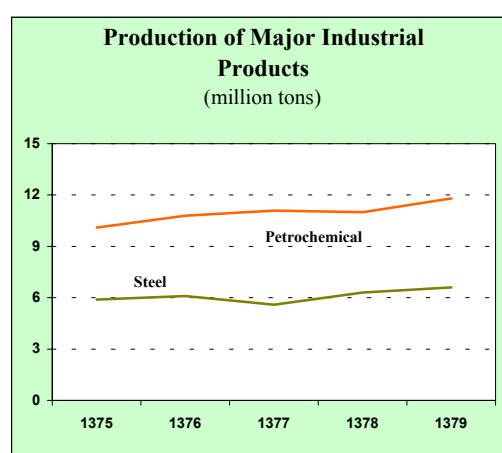
percent rise, amounted to \$198.1. The growth rate of export of industrial products was a notable achievement, which exceeded the growth projections in the 3<sup>rd</sup> FYDP of 11.4 percent.

The TSE indices generally reflected a bullish market for the year especially in industrial sector stocks. According to the TSE's industrial index, manufacturing companies share prices showed an average 29.8 percent growth to reach 2,621.8 units at the end of the review year.

In accordance with the 3<sup>rd</sup> FYDP Law, policy making and reorganization of the administrative infrastructure for manufacturing and mining sectors underwent substantial changes this year. Ratification of the bill concerning the 'centralization of manufacturing and mining affairs' in the Ministry of Industries and Mines by the Parliament, along with the announcement of new foreign exchange and trade regulations, were among these changes. Moreover, the government through use of the OSF, allocated resources in the form of foreign exchange facilities to manufacturing units, with priority being given to private and cooperative sectors, for new investment and renovation of these industries, as well as encouraging active participation of the private sector in industrial activities.

## Production

Stable conditions were created in this year to enhance investment in, and expand the capacities of, the manufacturing and mining sectors. These conditions consisted of the stability of the foreign exchange market, control of the monetary base, and financing the foreign exchange requirements of these industrial firms through the TSE. The value of output, at constant 1376 prices, and the production index of large manufacturing establishments which constituted the major portion of the value-added in the manufacturing sector respectively grew by 5.3 and 6.0 percent compared with the previous year.



The employment index for large manufacturing establishments showed a slight decline of 0.7 percent, mainly due to the 5.6 percent decline in the textile industry employment index. Conversely, the wages and salaries, and fringe benefits index went up by 23.9 percent compared to the previous year. This index only fell in the clothing and fur skin tanning and dressing industries. The referenced indices for production and employment in 1379 showed a 6.1 percent growth in the value of the employees' per capita output at constant prices compared with 1378 and reached Rls. 123.2 million. Data released by the Ministry of Industries and Mines indicates that production of 59 percent of selected industrial goods grew, compared with the previous year.

	MAJOR MANUFACTURING ESTABLISHMENTS INDICES (1)			(1376=100)	
	1377	1378	1379	Percentage change	
				1378	1379
Production	101.2	113.8	120.6	12.4	6.0
Employment	101.7	102.1	101.4	0.4	-0.7
Wage, salary, and fringe benefits	123.7	156.9	194.4	26.8	23.9
Per capita wage, salary and fringe benefits (in nominal terms)	121.6	153.5	191.6	26.2	24.8
Per capita wage and fringe benefits (in real terms) (2)	102.9	108.2	120.0	5.2	10.9

(1) Includes establishments with 100 employees or more.

(2) Adjusted with CPI in urban areas.

In the year under review, certain industrial units suffered production reductions and setbacks. The major factors responsible for this circumstance were obsolete and worn-out machinery, increase in overhead costs, legal and managerial problems, and insufficient demand for these units' products which in turn led to liquidity and cash flow shortages. In other instances, infra structural and administrative problems, along with the production of inferior quality goods, led to the under-utilization of manufacturing capacity in a number of industrial units.

In the mining sector, metallic ore production substantially increased. Increase in domestic demand, together with the boom in construction and housing sector and export of manufactured goods from this sector, following provision of financing in both rial and foreign exchange for manufacturing units, positively affected the growth of production in this sector.

In 1379, production figures for raw steel and steel products were respectively 6.6 and 5.3 million tons. Production of aluminum also increased. The production of smelting and casting aluminum at Iran Aluminum Corporation grew by 3.4 and 2.1 percent, respectively. In this year, the Al-Mahdi Aluminum Complex produced 22.2 thousand tons of aluminum bar, showing 8.2 percent rise, compared with 1378. In the review year, the production of copper in the form of electrolytic anode, cathode, and casting products respectively grew by 17.5, 18.3, 28.2 percent, to reach 181.2, 155.9, and 82.2 thousand tons.

<b>PRODUCTION OF SELECTED METALS</b>				(thousand tons)	
	1377	1378	1379	Percentage change	
				1378	1379
<b>Steel (1)</b>					
Slab and bar	5,608.0	6,303.4	6,604.0	12.4	4.8
Steel manufactured products	4,480.8	5,260.9	5,304.4	17.4	0.8
<b>Aluminum (2)</b>					
Smelting	106.7	113.2	117.0	6.1	3.4
Casting	110.4	116.9	119.3	5.9	2.1
<b>Copper</b>					
Electrolytic Anode	150.0	154.2	181.2	2.8	17.5
Electrolytic Cathode	129.0	131.8	155.9	2.2	18.3
Casting	46.4	64.1	82.2	38.1	28.2

Source: Ministry of Industries and Mines

(1) Includes Mobarakeh Steel Complex, Esfahan Iron Melting Corporation and Khuzestan Steel Corporation.

(2) Includes products of Iran Aluminum Corporation.

According to the data released by the Ministry of Industries and Mines, the total number of active mines reached 2700, with confirmed reserves amounting to 24 billion tons. Under the legislative law calling for the 'centralization of the manufacturing and mining industry', it was stipulated that a new body entitled 'Organization for Renovation and Development of Iranian Mines and Mining Industry' be created and charged with surveying, planning, and implementing projects for the betterment of the metallurgy industry. These projects were to be aimed at mobilizing and refurbishing all aspects of this sector's activities including methods of extraction and utilization of products. In addition to this, the Geology and Mineral Exploration Organization was charged to modify its Articles of Association in order to take on the responsibility for policy-making, supervision, and research on all aspects of the nation's geological affairs which includes exploration and preparation of preliminary, technical and economic feasibility reports.

In 1379, total production of petrochemical products reached 11.8 million tons, registering a marked growth of 7.3 percent, as compared to a 1.2 percent reduction in 1378. The highest growth recorded in this period was at the Khark and Esfahan Petrochemical complexes where

production respectively rose by 54.5 and 35.3 percent. In the review year, three petrochemical complexes, namely Bandar Imam with 38.0 percent, Razi with 16.8 percent and Shiraz with 14.8 percent produced nearly 70 percent of total petrochemical products. In this year, over 1,829 thousand tons of chemical fertilizer was supplied to the domestic market through various manufacturing units.

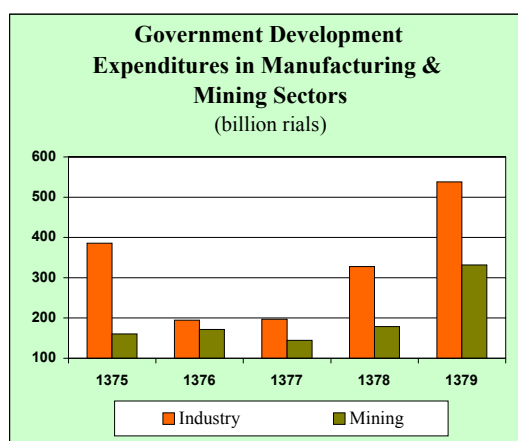
Data of trade activities for the National Petrochemical Industry Corporation indicates that 3,128 thousand tons of petrochemical products, valued at \$ 829 million were exported this year. This indicates an 8.5 percent weight increase and a large 43.1 percent increase in value over the previous year.

<b>PRODUCTION AND EXPORT OF PETROCHEMICALS</b> (thousand tons-percent)					
	1377	1378	1379	Percentage change	
				1378	1379
<b>Production</b>	<b>11,139.0</b>	<b>11,001.4</b>	<b>11,807.9</b>	<b>-1.2</b>	<b>7.3</b>
Capacity utilization ratio	84.1	77.4	75.7	-8.0	-2.2
Ratio of actual production to planned	95.2	92.1	89.2	-3.3	-3.1
<b>Export</b>					
Amount (thousand tons)	3,621	2,884	3,128	-20.4	8.5
Value (million dollars)	451.8	579.5	829.0	28.3	43.1

Source: National Petrochemical Industry Corporation

### Government Investment

In 1379, government allocated an amount of Rls. 840.1 billion for manufacturing, mining and industrial research programs within the context of national and provincial development expenditures, which was a 65.9 percent increase over the previous year. Programs entitled under 'industrial research', 'mobilization of mines', 'mineral exploration', 'establishment and expansion of metal and metal smelting industries', with respective shares of 34.3, 17.8, 14.4 and 8.9 percent together absorbed a 75.4 percent share of national expenditures in the manufacturing, mining, and research program.



Moreover, the credit and technical assistance program's share for the manufacturing and mining sectors was equal to 18.8 percent of national expenditures. The highest growth in manufacturing was related to the establishment and development of metal and metal smelting industries being 61.6 percent and in the mining sector, the heading under the program 'mining exploration' grew by 97.2 percent. In the review year, Rls. 263.0 billion was paid for the industrial research program, showing a 24.5 percent growth compared with the previous year. A further Rls. 74.2 billion was paid out to the provinces for their independent utilization in the manufacturing and mining sectors. These represented significant investment increases of 110.8 percent for manufacturing and 127.1 percent for mining sectors in comparison with the previous year. Increase in general budget revenues, and the government's focus on mining exploration and research programs were the major reasons behind the growth of expenditures for both of these sectors and industrial research program in the review year.

**GOVERNMENT DEVELOPMENT EXPENDITURES IN  
MANUFACTURING AND MINING SECTOR**

(billion rials)

	1377	1378	1379	Percentage change		Share (percent)	
				1378	1379	1378	1379
National expenditures	314.4	471.7	765.9	50.0	62.4	100.0	100.0
Manufacturing	136.0	88.1	192.3	-35.2	118.2	18.7	25.1
Mining	140.4	172.3	310.6	22.7	80.3	36.5	40.6
Industrial research	37.9	211.3	263.0	457.1	24.5	44.8	34.4
Provincial expenditures	26.9	34.7	74.2	28.7	113.9	100.0	100.0
Manufacturing	23.1	28.1	59.2	21.7	110.8	80.9	79.8
Mining	3.9	6.6	15.0	70.1	127.1	19.1	20.2
<b>Total</b>	<b>341.3</b>	<b>506.4</b>	<b>840.1</b>	<b>48.4</b>	<b>65.9</b>		

Source: Budget Laws for 1379-1380 and budget bill for 1381.

### Banking Facilities

Banks and credit institutions increased facilities to the manufacturing and mining sectors, so that the outstanding facilities, both public and non-public, by the end of 1379 (March 2001), registered a 27.7 percent rise over the corresponding figure of the year before to reach Rls. 52.8 thousand billion. In this year, the outstanding amount of facilities provided by banks and credit institutions to the public manufacturing and mining sector grew by 21.2 percent and amounted to Rls. 13.4 thousand billion. Moreover, the change in the outstanding facilities extended by banks and credit institutions to the manufacturing and mining sectors, both public and non-public, respectively were Rls. 9.1 and Rls. 2.4 thousand billion. The respective share in the change of these outstanding facilities was 20.5 percent for the public sector and 79.5 percent for the non-public sector. Commercial banks still held a large portion of facilities extended to the non-public manufacturing and mining sector. The commercial banks held 93.2 percent of the change in the outstanding facilities for this sector with the remainder being held by specialized banks and credit institutions. It is expected that with the measures envisaged in the 3<sup>rd</sup> FYDP to expand the capital market and support the specialized banks, the credit institutions and specialized banks will play a more crucial role in these sectors' activities. In this respect, the increase in the banking system's capital of Rls. 5000 billion, in accordance with the 3<sup>rd</sup> FYDP Law is to be noted. Furthermore, in the review year, conditions and regulations for the extension of foreign exchange facilities of the 3<sup>rd</sup> FYDP were approved. Priority was to be given to investment activities aimed at promoting new capacities in manufacturing, industrial, mining, agricultural, and transportation projects. Entrepreneurs and engineering and technical services providers of both cooperative and private sectors were also to receive support as well as support by way of purchase of imported inputs and investment for expansion and reconstruction of existing manufacturing capacities.

**FACILITIES EXTENDED BY BANKS AND CREDIT  
INSTITUTIONS TO MANUFACTURING AND MINING SECTOR (1)** (billion rials)

	Year-end			Percentage change		Change in outstanding (percent)	Share of change in outstanding
	1377	1378	1379	1378	1379		
<b>Non-public sector</b>	<b>23,285.2</b>	<b>30,259.2</b>	<b>39,375.6</b>	<b>29.9</b>	<b>30.1</b>	<b>9,116.4</b>	<b>79.5</b>
Commercial banks	20,466.2	27,319.4	35,812.8	33.5	31.1	8,493.4	74.1
Specialized banks	2,819.0	2,913.9	3,482.7	3.4	19.5	568.8	5.0
Credit institutions	...	25.9	80.1		209.3	54.2	0.5
<b>Public sector</b>	<b>10,023.7</b>	<b>11,073.1</b>	<b>13,424.6</b>	<b>10.5</b>	<b>21.2</b>	<b>2,351.5</b>	<b>20.5</b>
<b>Total</b>	<b>33,308.9</b>	<b>41,332.3</b>	<b>52,800.2</b>	<b>24.1</b>	<b>27.7</b>	<b>11,467.9</b>	<b>100.0</b>

(1) Excludes profit and revenues receivable.

In 1379, the banking system's overdue claims from the non-public manufacturing and mining sectors rose by 18.6 percent and reached Rls. 3.3 thousand billion. The ratio of banks' overdue claims from the manufacturing and mining sector to total facilities extended to non-public sector was approximately 8.5 percent.

The outstanding facilities extended by the specialized Bank of Industry and Mine for the manufacturing and mining sector at the end of 1379 reached Rls. 3,269.3 billion, showing a 20.3 percent rise compared to the end of 1378. This bank extended Rls. 497.6 billion worth of facilities to 1,253 applicants in this sector, showing an 8.5 and a 53.9 percent growth in the amount and the number, respectively as compared with the previous year.

#### PAYMENTS BY THE BANK OF INDUSTRY AND MINE

	(billion rials)						
	1377	1378	1379	Percentage change		Share (percent)	
				1378	1379	1378	1379
<b>Direct investment and legal partnership</b>							
Number	230	7	8	-97.0	14.3	0.9	0.6
Amount	47.6	194.1	89.8	307.8	-53.7	42.3	18.1
<b>Banking facilities (1)</b>							
Number	321	807	1,245	151.4	54.3	99.1	99.4
Amount	68.3	264.7	407.7	287.6	54.0	57.7	81.9
<b>Total</b>							
Number	551	814	1,253	47.7	53.9	100.0	100.0
Amount	115.9	458.8	457.6	295.9	8.5	100.0	100.0

Source: Bank of Industry and Mine

(1) Includes other contracts except direct investment and legal partnership.

In accordance with provisions aimed at 'centralizing manufacturing and mining affairs and establishment of new Ministry of Industries and Mines' in the 3<sup>rd</sup> FYDP, approved by the Parliament in 1379, the Bank of Industry and Mine was affiliated to this new ministry, with the provision that it was to keep its legal, fiscal and administrative identity as a 'development bank'. Moreover, in conformity with the 3<sup>rd</sup> FYDP Law and its executive by-law, 3 percent of outstanding of the banks' reserve requirement at the end of 1378 was to be placed at the disposal of the three specialized banks. Each of the specialized banks shall receive one percent of these deposits, and extend these facilities within their sector for selected projects based on their level of creating worthwhile permanent employment. In this sector the Bank of Industry and Mines also further decided that these facilities would only be extended to small-scale industries. Additionally, under other sections of the budget law, each year other banking resources have been set aside for creation of employment opportunities and support of small-scale industries to enhance job creation.

#### Performance of Industrial Stocks at the Tehran Stock Exchange

Tehran Stock Exchange (TSE) indices indicate relative boom in productive and services activities during 1379. At the end of this year, the share price index of manufacturing companies, the industrial index, registered a marked rise of 29.8 percent. The highest growth recorded was that of the 'paper products' industry which rose by 104.6 percent, followed by the 'refined oil products' industry's rise of 76.8 percent, the 'non-metallic minerals' rise of 42.6 percent, the 'rubber and plastic' rise of 38.0 percent, the 'printing and publishing' rise of 36 percent, and the 'wood and paper' industry's rise of 30.3 percent.

The share price index for the ‘textile industry’, ‘machinery and equipment’, ‘transportation equipment’, and ‘radio and television’, declined in comparison with the previous year. The relatively high cost price for audio-visual products, consisting mainly of imported parts locally assembled using out-dated technology, and use of old and obsolete machinery in the textile industry along with overproduction which caused a glut in this market, resulted in a reduction in relative profitability of these industries and therefore a reduction in their market share price index.

### **Establishment and Operation of New Manufacturing Units and Expansion of Existing Units**

Data released by the Ministry of Industries and Mines in 1379 indicates that the investment outlook in industrial activities is still optimistic and enjoys a positive trend. According to data obtained from permits issued by the Ministry for new industrial units, the number of investments, their amount, and the employment in these units, all grew in 1379. The average investment amount projected for each industrial project as per establishment license data, reached Rls. 6,971.6 million, registering a 94.8 percent growth as compared with the previous year. The average investment for each new job opportunity created was estimated at Rls. 237.2 million, showing a rise of 71.0 percent, compared with this expenditure in the previous year. Given the relatively low price for the capital investment factor, the utilization of new technology and restrictions existed in the labor and social security laws, most new manufacturing establishments show a marked performance in setting up automated-capital-intensive plants rather than utilizing more labor intensive methods of production. Although the petrochemical industry falls under the auspices of the NIOC, in accordance with legislation in 1379 any new petrochemical activity was also required to obtain a permit from the Ministry of Industries and Mines. In this respect, including the investment data for the petrochemical activity, the amount of investment would be higher.

#### **NUMBER, INVESTMENT AND EMPLOYMENT OF INDUSTRIAL PERMITS**

	1377	1378	1379	Percentage change	
				1378	1379
<b>Establishment permits</b>					
Number	6,856	8,096	8,937	18.1	10.4
Investment (billion rials)	23,814	28,980	62,305	21.7	115.0
Employment	182,959	208,962	262,699	14.2	25.7
<b>Operation permits</b>					
Number	2,615	3,387	3,236	29.5	-4.5
Investment (billion rials)	6,369	10,330	6,291	62.2	-39.1
Employment	54,349	67,144	55,519	23.5	-17.3

Source: Ministry of Industries and Mines

Data obtained from operating permits issued by the Ministry of Industry in this year registered a percentage decline in the number of permits, the amount of investment, and the amount of new employment respectively. Operational delays in industrial projects and government’s unfavorable fiscal position during 1376-1377 were among the reasons for the declining trend of investment witnessed in operating permit data in the review year. In addition, the high volume of investment under the heading of ‘coke and refined oil products and nuclear fuels’ in 1378, especially investment of Rls. 3,555 billion for operation of a petrochemical unit in Arak, along with reduction of investment in 1379, were among the main reasons behind the change in the investment trend during the three years ending 1379. It is projected that the investments made during 1378 and 1379 along with changes in policy making for the industry sector as stipulated in the law of centralizing manufacturing and mining affairs, and

deregulation aimed at encouraging private sector involvement in this sector's activities, this trend has been halted and is set to start upwards.

According to the Ministry of Industries and Mines, 2,161 new industrial projects, with a total investment of Rls. 49.1 thousand billion and 39.6 thousand new job opportunities were put into operation in the review year.

### Export and Import of Manufacturing and Mining Products

In 1379, new foreign exchange and trade regulations increased the export value of industrial products by 29.8 percent. These new initiatives included elimination of the export rate in foreign exchange, elimination of the ceiling for surrender requirement for each phase of export, reduction of the minimum LC surrender requirement to 10 percent, allowing direct import of raw materials, and required machinery and equipment for manufacturing establishments against export of goods, exempting collateral and prepayment requirements for export of goods and services, provision of facilities for the settlement of foreign exchange obligations, elimination of collateral requirements for reputable exporters and attempts to convert non-tariff barriers to tariff barriers. However, the weight of these export goods fell by 2.2 percent to become 9.4 million tons. In this year, exports under the heading of 'chemical and petrochemical materials' and 'cast-iron, iron and steel' retained the highest shares in value of exported goods being respectively 37.3 and 14.8 percent of the total.

The value of import of 'major industrial products' equaled \$ 7.2 billion, showing 13.7 percent growth compared with the previous year. This increase was mostly due to the growth in value for import of 'iron' and 'plastic raw materials' by 50.8 and 18.8 percent, respectively.

#### EXPORT AND IMPORT OF INDUSTRIAL PRODUCTS

	1377	1378	1379	Percentage change	
				1378	1379
<b>Export</b>					
Amount (thousand tons)	9,393.3	9,588.5	9,374.9	2.1	-2.2
Value (million dollars)	1,441.5	1,430.8	1,857.4	-0.7	29.8
Unit value (\$ / tons)	153.5	149.2	198.1	-2.8	32.8
<b>Import (1)</b>					
Amount (thousand tons)	3,527	3,512	5,499	-0.4	56.6
Value (million dollars)	7,854	6,365	7,238	-19.0	13.7
Unit value (\$ / tons)	2,226.8	1,812.4	1,316.2	-18.6	-27.4

Source: Customs preliminary data

(1) Includes import of major industrial products.