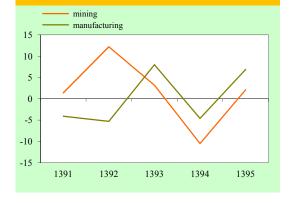


# MANUFACTURING AND MINING

ajor indices in manufacturing and mining sector indicate favorable performance in 1395. Based on preliminary data of national accounts, the value-added growth rates for "manufacturing" and "mining" sectors indicate respectively 6.9 and 2.1 percent growth, in 1395, at constant 1390 prices.

Figure 4.1. Growth in value-added of manufacturing and mining sector (at constant 1390 prices)



#### **Production**

The production index of large manufacturing establishments increased by 8.7 percent in 1395. Manufacture of "chemical products", "base metals", "motor vehicles, trailers, and semi-trailers", and "food products" with a relative weight of 69.9 percent in total production index of large manufacturing establishments, increased respectively by 11.8, 1.3, 37.6, and 8.5 percent. The "employment" index decreased by 2.2 percent while the wage index surged by 18.3 percent in 1395.

# **Production of Selected Industries**

In 1395, a total of 1,350.1 thousand lightand heavy-duty vehicles were manufactured, up by 38.2 percent compared with 1394. In this year, 65 percent of total production capacity of the automotive industry was utilized. Meanwhile, the production of crude steel increased by 13.5 percent while products such as cement, aluminum bar, and copper cathode decreased by respectively 4.1, 4.1, and 1.5 percent compared with 1394.

**Table 4.1. Selected Manufacturing and Mining Products** 

				Percentage change	
	1393	1394▲	1395	1394	1395
Cement (million tons)	66.5	57.9	55.5	-12.9	-4.1
Light-duty vehicles <sup>1</sup> (thousand)	1,109.3	965.8	1,333.1	-12.9	38.0
Crude steel (million tons)	16.8	16.5	18.8	-1.6	13.5
Copper cathode (thousand tons)	193.6	193.1	190.1	-0.3	-1.5
Aluminum bar (thousand tons)	287.0	353.3	338.8	23.1	-4.1

Source: Ministry of Industry, Mine, and Trade.

Source: SAPCO (Supplying Automotive Parts Company)-Includes various types of passenger cars, pick-ups, vans, ambulances, and double-differential cars.

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According to the National Petrochemical Company, petrochemical products (including the performance of privatized companies) amounted to 50.6 million tons in 1395, indicating 9.1 percent increase compared with the year before. Furthermore, the volume (weight) of petrochemical exports amounted to 20.9 million tons, showing 10.9 percent rise compared with 1394. The value of petrochemical exports reached \$9.8 billion, up by 2.3 percent compared with the year before. Domestic sales of petrochemical products increased by 16.0 and 23.3 percent in this year, in terms of volume and value, respectively.

#### **Government Investment**

According to the Treasury General, the government approved a sum of Rls. 7,764.2 billion in the 1395 Budget Law for the implementation and completion of acquisition of non-financial assets projects in the manufacturing and mining sector. It is to be noted that Rls. 1,849.1 billion was paid

on this purpose in this year, which is equal to 23.8 percent of the approved credits. The highest performance rate of the budget by 86.0 percent was related to "raising public awareness on national standards" program heading, followed by "provision, development, reinforcement, repair, and maintenance of buildings and machinery" by 77.7 percent.

#### **Banking Facilities**

By end-1395, total outstanding facilities (net) extended to public and non-public manufacturing and mining sectors (excluding profit and revenue receivables) grew by 15.0 percent compared with the previous year-end to reach Rls. 1,430.4 trillion. Accordingly, the share of change in the outstanding debts of the non-public manufacturing and mining sector in total change in the outstanding facilities extended by banks and non-bank credit institutions to all non-public economic sectors was 13.2 percent.

**Table 4.2. Performance of Petrochemical Industry** 

				Percentage change	
	1393	1394	1395	1394	1395
Production (thousand tons) <sup>1</sup>	44,511	46,411	50,614	4.3	9.1
Exports					
Volume (thousand tons)	15,886	18,809	20,851	18.4	10.9
Value (million dollars)	10,273	9,586	9,803	-6.7	2.3
Domestic sales					
Volume (thousand tons)	16,333	13,968	16,204	-14.5	16.0
Value (billion rials)	333,489	241,485	297,826	-27.6	23.3

Source: National Petrochemical Company.

<sup>1</sup> Due to the utilization of several petrochemical products for intermediate consumption, the production volume of this sector is constantly higher than sum of exports and domestic sales.

Table 4.3. Credits for Acquisition of Non-financial Assets in Manufacturing and Mining Sector in 1395<sup>1</sup>

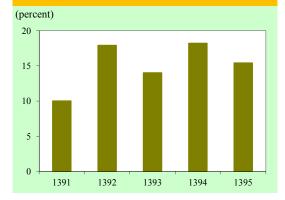
(billion rials)

	Performance	Approved <sup>2</sup>	Realization (percent)
Manufacturing and mining sector	1,849.1	7,764.2	23.8

Source: Treasury General, Ministry of Economic Affairs and Finance. <sup>1</sup> Due to the change in classification of program headings in the Budget Law for 1395, the performance figures of this year are not comparable with those of previous years. <sup>2</sup> The approved figure is acquired from Treasury General data classified as "amended credit".

In 1395, of total Rls. 5,483.7 trillion loans and facilities allocated by banks and non-bank credit institutions to various economic sectors, a sum of Rls. 1,609.2 trillion was extended to the manufacturing and mining sector, showing 32.0 percent increase compared with 1394. Of the total sum paid to the manufacturing and mining sector, 82.3 percent was in the form of financing facilities for working capital. The share of the manufacturing and mining sector in total allocated facilities was 29.3 percent.

Figure 4.2. Change in outstanding facilities extended by banking system to non-public manufacturing and mining sector



#### **Credit to SMEs**

Given the important role of the Small and Medium Enterprises (SMEs) in job creation

and realization of the objectives as set in the resilient economy document, "Guideline on Financing SMEs" was drafted and circulated by the CBI in 1395 for implementation by the banking system. Accordingly, for the provision of liquidity to manufacturing establishments, maintenance of current employment levels, and creation of new job opportunities, the facilities under this guideline were specifically targeted to those SMEs that previously had reasonable profitability but ceased production due to weak financial conditions and inadequate working capital. Meanwhile, those projects whose physical progress index was above 60 percent were also subject to the extension of required facilities. On this basis and with the coordination of the Ministry of Industry, Mine, and Trade, a registration platform was designed for the qualified applicants. Therefore, a sum of Rls. 168.1 trillion worth of facilities was allocated to a total of 24.2 thousand eligible manufacturing establishments by year-end.

#### **New Manufacturing Units**

The number of establishment permits issued in 1395 reached 15.4 thousand, up by 3.5 percent compared with the year before. The projected investment based on establishment permits decreased by 1.5 percent to Rls. 1,233.7 trillion in this year. Reviewing the investment status based on issued establishment permits for different industrial groups indicates that investors tended to invest in four industrial

Table 4.4. Net Outstanding Facilities Extended by Banks and Non-bank Credit Institutions to Manufacturing and Mining Sector <sup>1</sup>

(trillion rials)

	Year	-end	1395			
	1394	1395	Percentage change	Change in outstanding	Total change in outstanding <sup>2</sup>	Relative share (percent)
						<u>u</u> /
Non-public sector	1,232.5	1,421.8	15.4	189.3	1,436.1	13.2
Public sector	10.9	8.6	-21.4	-2.3	95.1	-2.5
Total	1,243.4	1,430.4	15.0	187.0	1,531.2	12.2

<sup>&</sup>lt;sup>1</sup> Net outstanding facilities are calculated after deduction of outstanding debts of customers and extended facilities related to the exchange rate differential, profit receivables, profit and commission receivables, receipts from Mudarabah, civil partnership (bank's share), outstanding profit, and outstanding commission. Moreover, net outstanding facilities include legal partnership and direct investment contracts.

<sup>&</sup>lt;sup>2</sup>Change in outstanding facilities extended by banks and non-bank credit institutions to all economic sectors.

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groups including "chemical products" (with a share of 25.4 percent), "coke and refined petroleum products" (18.5 percent), and "base metals" and "food and beverage" (each with 9.3 percent) more than the other manufacturing groups, accounting for almost 62.4 percent of total issued establishment permits.

The average amount of projected investment based on issued establishment permits was Rls. 80.0 billion, indicating 4.9 percent decrease compared with 1394. Average investment projected for each employment opportunity, based on establishment permits, decreased by 1.4 percent to Rls. 3.4 billion.

A total of 5,207 operation permits, with an investment of Rls. 283.5 trillion (at current prices) were issued in this year, showing 7.7 and 62.5 percent increase, respectively. "Food and beverages" had the highest share in the number of issued operation permits by 15.3 percent, followed by "rubber and plastic products" with 14.9 percent and "chemical products" and "other non-metallic mineral products" industries, each with 12.4 percent. In 1395, the average capital formation by an industrial unit, based on operation permits, amounted to Rls. 54.5 billion, indicating 50.8 percent increase compared with the year before.

Table 4.5. Number, Investment, and Employment of Establishment and Operation Permits Issued for Manufacturing Groups

				Percentage change	
	1393	1394▲	1395	1394	1395
Establishment permits					
Number	16,841	14,896	15,417	-11.5	3.5
Projected investment (trillion rials)	971.1	1,253.1	1,233.7	29.0	-1.5
Projected employment (thousand persons)	404.1	366.5	365.7	-9.3	-0.2
Operation permits					
Number	4,966	4,833	5,207	-2.7	7.7
Investment (trillion rials)	146.6	174.5	283.5	19.0	62.5
Employment (thousand persons)	80.0	76.3	85.0	-4.6	11.4

Source: Ministry of Industry, Mine, and Trade.

**Table 4.6. Average Capital Formation and Employment Generation of New Manufacturing Permits** 

				Percenta	ge change
	1393	1394▲	1395	1394	1395
Establishment permits					
Average capital formation forecast in each project (million rials)	57,664	84,124	80,022	45.9	-4.9
Average employment generation forecast by each project (person)	24	25	24	2.5	-3.6
Average capital formation per employment opportunity (million rials)	2,403	3,419	3,373	42.3	-1.4
Operation permits					
Average capital formation by an industrial unit (million rials)	29,516	36,103	54,451	22.3	50.8
Average employment generation by an industrial unit (person)	16	16	16	-2.0	3.4
Average capital formation per employment opportunity (million rials)	1,832	2,287	3,337	24.8	45.9

Source: Ministry of Industry, Mine, and Trade.

#### **Permits Issued in the Mining Sector**

The total number of discovery certificates issued by the Ministry of Industry, Mine, and Trade decreased by 10.8 percent to reach 562 in 1395. Meanwhile, the number of issued operation permits increased by 8.6 percent to 860, with the objective of putting new mines into operation. The number of exploration permits awarded to applicants increased by 10.6 percent compared with 1394, to reach 795.

## **Employment in Manufacturing Sector**

Data related to employment based on issued operation permits indicate that 85.0 thousand job opportunities were created in the manufacturing sector in 1395. According to the report released by the Ministry of Industry, Mine, and Trade, the number of persons employed in the manufacturing sector, based on operation permits, reached 16 on average. On this basis, the average capital formation per employment opportunity increased by 45.9 percent compared with the year before to reach Rls. 3.3 billion in 1395.

# **Producer Price Index of Manufacturing and Mining Products**

The Producer Price Index (PPI) measures the average change over time in the sales price of domestic production as received by domestic producers. The PPI is an admissible parameter normally used as a leading indicator for inflation. In 1395, the general PPI grew by 5.0 percent (base year:1390) compared with 4.9 percent growth in 1394. Moreover, the PPI for "manufacturing" group increased by 3.6 percent compared with the year before.

### **Industrial Exports**

In 1395, the weight of industrial exports rose 42.8 percent to reach 83.0 million tons and their value increased by 11.6 percent to \$30.0 billion. Therefore, the average unit value of industrial exports was \$361.6 per ton, down by 21.9 percent compared with 1394. Major items of industrial exports included "gas and oil products" with a share of 32.3 percent in the value of industrial exports, "rubber and plastic products" with 16.5 percent, "organic chemicals" with 12.3 percent, and "cast iron, iron, steel, and their articles" with 10.0 percent.

**Table 4.7. Number of Issued Mining Permits** 

				Perc	centage change
	1393	1394▲	1395	1394	1395
Exploration permits <sup>1</sup>	1,020	719	795	-29.5	10.6
Discovery certificates <sup>2</sup>	896	630	562	-29.7	-10.8
Operation permits <sup>3</sup>	988	792	860	$\theta^4$	8.6

Source: Ministry of Industry, Mine, and Trade.

<sup>&</sup>lt;sup>1</sup> It is a license issued by the Ministry of Industry, Mine, and Trade which permits exploration of minerals within a specific scope.

<sup>&</sup>lt;sup>2</sup> It is an endorsement certificate issued by the Ministry of Industry, Mine, and Trade in the name of the owner of the exploration permit, after the completion of exploration and ore discovery.

It is a license issued by the Ministry of Industry, Mine, and Trade for extracting, ore dressing, and obtaining salable mining products.

As of 1394, mining operation permits only include the newly issued operation permits, excluding the renewed ones. Therefore, data for 1394 are not comparable with the previous year.

# 5<sup>th</sup> Five-Year Development Plan (1390-1395)

The enhancement of competitiveness of manufacturing products, diversification of industrial exports, and formation of industrial clusters through better incentive structures for closer collaboration among SMEs and large production units have been the main themes of the 5<sup>th</sup> FYDP. The development of downstream activities and the extension of value chain in intermediate goods' producing plants, sustainable expansion and promotion of high technology and technology-based industries, and renovation and productivity enhancement of manufacturing and mining sector were also listed as major objectives of the plan.

The performance of "manufacturing" and "mining" sectors over the plan period shows 0.9 and 3.6 percent increase, respectively, on an annual average basis at constant 1390 prices.

#### **Petrochemical Products**

Petrochemical production in Iran enjoys a comparative advantage relative to other industries, mainly due to availability of large stocks of raw materials at reasonable prices. Remarkable capital investments in this industry have led to its favorable growth over the past two decades. The average growth of petrochemical products was 3.9 percent compared with 1389 base year and the volume of exports grew by 2.6 percent. The

annual average growth of the volume of domestic sales was 7.4 percent during the 5<sup>th</sup> FYDP years. The relative value share of petrochemical exports in total industrial exports followed a downward trend during the plan period from 55.0 percent in 1389 to 32.7 percent in 1395.

# **Automotive Industry**

The automotive industry in Iran was directly hit for the first time by sanctions during the 5th FYDP years. As a result, the number of produced automobiles decreased from 1,641.5 thousand in 1390 to 921.4 and 737.1 thousand in 1391 and 1392, respectively. After the conclusion of the nuclear deal, foreign companies again expressed willingness to make investments in Iran, resulting in the signing of a number of joint ventures between the Iranian producers and foreign automakers. The production of various types of light- and heavy-duty vehicles underwent sharp fluctuations during the course of the plan, decreasing by 2.8 percent on an annual average basis to reach 1.4 million in number in 1395

#### **Base Metals**

During the years of the 5<sup>th</sup> FYDP, manufacturing and mining products faced limitations in a way that aluminum bar and steel products experienced production growth

Table 4.8. Performance of the 5<sup>th</sup> FYDP with Regard to Manufacturing and Mining Sector

(percent)

	Base year	Performance				Annual average		
Value-added	1389	1390	1391	1392	1393	1394	1395	growth
Total economy	5.7	3.1	-7.7	-0.3	3.2	-1.6	12.5	1.3
Mining	20.2	15.4	1.4	12.2	3.2	-10.5	2.1	3.6
Manufacturing	10.5	5.6	-4.1	-5.3	8.0	-4.6	6.9	0.9

by merely 1.9 and 2.2 percent and production of cement fell by 1.7 percent on average. However, crude steel enjoyed an annual average growth rate of 6.7 percent. Due to the strong linkage between the manufacturing and mining sector and construction activities, the sluggishness in the construction and housing sector during 1392-1395 might have relatively affected the production of base metals.

#### Industrial Investment

# Facilities Extended to Manufacturing and Mining Sector

During the course of the 5<sup>th</sup> FYDP, banks and credit institutions raised the amount of loans and facilities to manufacturing and mining sector in line with government and MCC approvals. Thus, net outstanding facilities to this sector amounted to Rls. 1,430.4 trillion at end-1395, of which 99.4 percent was allocated to the non-public manufacturing and mining sector. The annual average growth of outstanding facilities extended to the non-public manufacturing and mining sector was 15.4 percent over the Plan period.

In the initial years of the Plan, the Iranian economy was hit by the escalation of sanctions and sharp foreign exchange fluctuations, resulting in severe stagflation. Therefore, in 1391 and 1392, the economy contracted very sharply and inflation surged to 40 percent. This led to production bottlenecks and the underperformance of many manufacturing units compared to their nominal capacity. To offset this, the government formulated the package of "non-inflationary exit from recession", aimed at putting the unutilized capacities of the economy on stream and maintaining the current employment levels. In this package, the major priority in terms of credit policy was given to financing the manufacturing establishments' working capital and it was decided that at least 60 percent of total credit payment by banks should be allocated to working capital of productive units. Accordingly, the share of working capital in total facilities extended by the banking system increased from 53.9 percent in 1392 to 64.0 percent in 1395. This policy was strongly adhered to in the manufacturing and mining sector in a way that of total facilities extended to this sector, 82.3 percent was assigned to working capital in 1395

Meanwhile, the government team of economic experts formulated an economic stimulus package in 1394 with the aim of protecting domestic production and strengthening domestic spending. The four main aspects for this package were: incentive-based reduction of reserve requirement ratio for commercial banks and credit institutions within a range of 10 to 13 percent, extension of facilities for the purchase of commercial papers related to the sales of agricultural machinery (tractors and combines) by the manufacturer at a price of Rls. 250 million (at most 80 percent of the value of the machine), extension of facilities by banks and credit institutions to manufacturing units through debt purchase facilities (installment sale contracts), and extension of facilities for the purchase of consumer durables by credit cards (based on Murabaha contracts), up to Rls 100 million

# Performance of Bank of Industry and Mine

Bank of Industry and Mine, as the sole specialized bank in the manufacturing and mining sector, continued to extend loans and facilities to this sector over the course of the Plan. The value of facilities paid by this bank in this period experienced an annual average increase by 22.4 percent, from Rls. 24.9 trillion in 1389 to Rls. 83 8 trillion in 1395

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Table 4.9. Payments by Bank of Industry and Mine during the 5<sup>th</sup> FYDP

	Paid amounts (trillion rials)
1389 (base year)	24.9
1390	25.6
1391	27.7
1392	38.6
1393	46.7
1394	81.6
1395	83.8
Annual average growth (percent)	22.4

Source: Bank of Industry and Mine.

### **Issuance of Manufacturing Permits**

During the years of the Plan, the number of operation permits issued for manufacturing units fell by an annual average rate of 4.5 percent. The capital required for the implementation of industrial projects grew

by an annual average rate of 6.5 percent (at current prices) and the number of employment opportunities created based on operation permits declined by an average rate of 7.0 percent annually.

### **Industrial Exports**

Positive developments of the country's foreign trade over the years of the plan led to the rise in the share of the weight of industrial exports in total non-oil exports from 62.6 percent in 1389 to 74.6 percent in 1395. The total value of industrial exports in this period experienced an annual average growth rate of 6.8 percent to more than \$30.0 billion in 1395. The volume (weight) of industrial exports increased from 37.7 million tons in 1389 to 83.0 million tons in 1395, indicating an annual average growth rate of 14.1 percent.

Table 4.10. Issuance of Manufacturing Permits during the 5<sup>th</sup> FYDP

	I	Establishment permits			Operation permits			
	Number	Investment (trillion rials)	Employment (thousand)	Number	Investment (trillion rials)	Employment (thousand)		
1389 (base year)	15,832	881.1	467	6,858	194.1	131		
1390	15,784	801.2	460	6,331	156.8	111		
1391	14,456	548.1	333	3,987	83.2	69		
1392	17,249	1,104.2	452	4,168	148.6	76		
1393	16,841	971.1	404	4,966	146.6	80		
1394	14,896	1,253.1	366	4,833	174.5	76		
1395	15,417	1,233.7	366	5,207	283.5	85		
Annual average growth (percent)	-0.4	5.8	-4.0	-4.5	6.5	-7.0		

Source: Ministry of Industry, Mine, and Trade.