

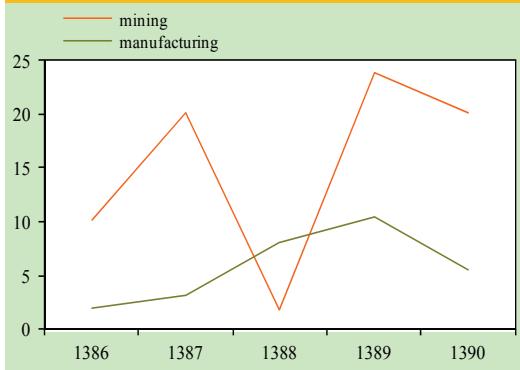
## MANUFACTURING AND MINING

**M**anufacturing sector plays a pivotal role in the boom and bust cycles of the economy. Hence, any structural policy reform in the economy affects the manufacturing sector. Although the value-added of manufacturing sector enjoyed a high growth of 10.5 percent in 1389 (at constant 1383 prices), the performance of this sector in 1390 was negatively affected by events like sanctions imposed on the Iranian economy and inappropriate implementation of phase 1 of Subsidy Reform Plan. Given these developments, the value-added of the manufacturing sector grew by 5.6 percent, at constant 1383 prices, in 1390. On the other hand, the value-added of the mining sector experienced a remarkable growth by 20.1 percent, at constant 1383 prices, in 1390. This noticeable increase did not contribute to high growth in the manufacturing and mining sector, in light of the low share of mining in the growth of the manufacturing and mining sector.

### Production

Production index of large manufacturing establishments increased by 5.7 percent in 1390. Manufacture of "other transport equipment", "basic metals", and "motor vehicles, trailers, and semi-trailers", with a total relative weight of 41.4 percent in the mentioned index, grew by 63.2, 14.9, and 9.5 percent, respectively. "Employment" and "wage" indices rose by 0.5 and 15.8 percent, respectively.

**Figure 4.1. Growth in value-added of manufacturing and mining sector (at constant 1383 prices)**



### Production of Selected Industries

In 1390, a total of 1,641.5 thousand light-and heavy-duty vehicles were manufactured, up by 2.8 percent compared with 1389. In the Production Plan of the Automotive Industry, it was envisaged that 1,863.3 thousand vehicles should be manufactured in 1390. Therefore, 88.1 percent of the production target was actualized in this year. Production of cement, crude steel, and aluminum bar recorded lower growth figures than the year before.

According to the National Petrochemical Company, petrochemical products (including the performance of privatized companies) amounted to 42.7 million tons in 1390, indicating 6.4 percent increase. Furthermore, the

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weight of petrochemical exports (including the performance of privatized companies) was raised by 8.0 percent to 19.3 million tons. The value of petrochemical exports reached \$15.2 billion, up by 31.3 percent compared with the previous year. The increase in value of exports and domestic sales of petrochemical products in 1390 is attributable to higher prices of these products in the said year.

In this year, 12.0 million tons of petrochemical products were sold in the domestic market, showing a growth rate of 14.0 percent compared with the year before.

### Government Investment

According to the Budget Law for 1390, government approved Rls. 5,665.7 billion for the implementation and completion of acquisition of non-financial-national assets projects in manufacturing and mining sector and industrial research project. According to

the Treasury General of the Ministry of Economic Affairs and Finance, a sum of Rls. 5,744.8 billion was allocated to the mentioned sector and project, up by 146.6 percent compared with the performance of the year before.

In this year, a sum of Rls. 26.3 billion was paid to the "industrial research project in manufacturing and mining sector", showing 39.3 percent increase. The share of the industrial research project in total credits approved to be allocated to the manufacturing and mining sector was 0.5 percent. A review of government budget performance in 1390 reveals that 101.4 percent of credits approved for the acquisition of non-financial assets projects in the "manufacturing and mining sector" and "industrial research project" were realized. The highest realization by 156.6 percent was related to "establishment and development of industries" project, followed by "industrial research project in manufacturing and mining sector" by 100.0 percent.

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

	1388	1389	1390	Percentage change	
				1389	1390
Cement (million tons)	52.1	61.6	66.5	18.2	7.9
Light-duty vehicles <sup>1</sup> (thousand)	1,386.6	1,555.0	1,602.0	12.1	3.0
Crude steel (million tons)	11.1	12.7	14.1	14.4	10.6
Copper cathode (thousand tons)	210.3	221.1	235.0	5.1	6.3
Aluminum bar (thousand tons)	281.3	303.0	318.0	7.7	5.0

Source: Ministry of Industry, Mine, and Trade; Report for 1384-1391

<sup>1</sup> Source: SAPCO (Supplying Automotive Parts Company) - Including various types of passenger cars, pick-ups, vans, ambulances, and double-differential cars

**Table 4.2. Performance of Petrochemical Industry**

	1388	1389	1390	Percentage change	
				1389	1390
<b>Production (thousand tons)<sup>1</sup></b>	<b>34,433</b>	<b>40,175</b>	<b>42,736</b>	<b>16.7</b>	<b>6.4</b>
<b>Exports</b>					
Weight (thousand tons)	14,039	17,861	19,282	27.2	8.0
Value (million dollars)	9,147	11,559	15,177	26.4	31.3
<b>Domestic sales</b>					
Volume (thousand tons)	7,865	10,532	12,010	33.9	14.0
Value (billion rials)	46,766	67,692	112,264	44.7	65.8

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.

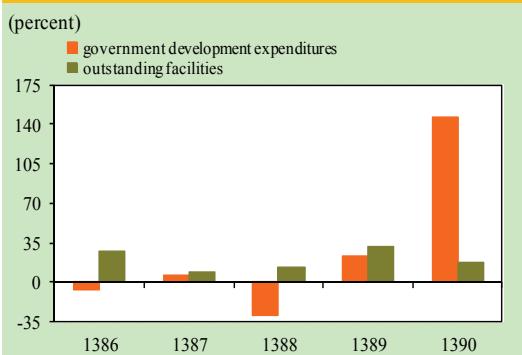
## Banking Facilities

By end-1390, total outstanding facilities (net) extended to public and non-public manufacturing and mining sectors (excluding profit and revenue receivables) grew by 16.9 percent to Rls. 708.2 trillion compared with the previous year-end. Accordingly, 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 15.3 percent.

Data drawn by the Ministry of Industry, Mine, and Trade indicate that a sum of \$2.9 billion was approved to be allocated out of the National Development Fund of Iran (NDFI) to 152 projects in 1390. "Chemical and cellulose" and "non-metallic mineral

products" industries accounted for the highest shares in the value of approved facilities by 29.8 and 22.3 percent, respectively.

**Figure 4.2. Change in outstanding facilities extended to non-public manufacturing & mining sector & government development expenditures**



**Table 4.3. Credits for Acquisition of Non-financial–National Assets in Manufacturing and Mining Sector and Industrial Research Project** (billion rials)

	1388	1389	1390	Percentage change		Share (percent)		1390	
				1389	1390	1389	1390	Approved	Realization (percent)
Manufacturing and mining sector	1,886.9	2,311.0	5,718.4	22.5	147.4	99.2	99.5	5,639.4	101.4
Industrial research project in manufacturing and mining sector	18.2	18.9	26.3	4.2	39.3	0.8	0.5	26.3	100.0
<b>Total</b>	<b>1,905.0</b>	<b>2,329.9</b>	<b>5,744.8</b>	<b>22.3</b>	<b>146.6</b>	<b>100.0</b>	<b>100.0</b>	<b>5,665.7</b>	<b>101.4</b>

Source: Treasury General, Ministry of Economic Affairs and Finance

**Table 4.4. Outstanding Facilities Extended by Banks and Non-bank Credit Institutions to Manufacturing and Mining Sector<sup>1</sup>** (billion rials)

	Year-end		1390			
	1389	1390	Percentage change	Change in outstanding	Total change in outstanding <sup>2</sup>	Relative share (percent)
Non-public sector	600,814.4	705,134.9	17.4	104,320.5	683,325.3	15.3
Public sector	4,795.1	3,075.2	-35.9	-1,719.9	95,158.1	-1.8
<b>Total</b>	<b>605,609.5</b>	<b>708,210.1</b>	<b>16.9</b>	<b>102,600.6</b>	<b>778,483.4</b>	<b>13.2</b>

<sup>1</sup> Excluding profit and revenue receivables

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

### New Manufacturing Units

The number of establishment permits issued in 1390 reached 15.9 thousand, up by 0.7 percent compared with the year before. Reviewing the number of issued establishment permits based on different industrial groups indicates that investors tended to invest in "non-metallic mineral products" (24.8 percent), "food and beverages" (18.6 percent), and "rubber and plastic products" (11.6 percent) more than other manufacturing groups in this year. Therefore, over 55.0 percent of issued establishment permits were related to these three industrial groups.

The amount of projected investment based on issued establishment permits was Rls. 816.5 trillion, indicating 7.3 percent decrease compared with 1389. Average investment projected for each manufacturing

project, on the basis of establishment permits, decreased by 8.0 percent to Rls. 51.2 billion. Average capital formation per employment opportunity, based on establishment permits, was Rls. 1,751 million, down by 7.2 percent.

A total of 6,340 operation permits, with an investment of Rls. 159.6 trillion at current prices, were issued in this year, showing 8.0 and 17.8 percent decrease, respectively. "Non-metallic mineral products", "food and beverages", and "rubber and plastic products" industries had the highest shares in the number of issued operation permits by 18.7, 18.4, and 13.5 percent, respectively. Average capital formation by an industrial unit, based on operation permits, was Rls. 25.2 billion, showing 10.6 percent decline compared with the year before.

**Table 4.5. Projects Approved to Be Financed out of NDFI in 1390**

Industries	Number	Share (percent)	Value (million dollars)	Share (percent)	Average value of approved amount (million dollars)
Food and pharmaceutical	36	23.7	377.2	13.2	10.5
Chemical and cellulose	35	23.0	850.8	29.8	24.3
Mining	15	9.9	561.1	19.6	37.4
Metallic	7	4.6	167.0	5.8	23.9
Textile and leather	4	2.6	41.0	1.4	10.2
Electrical	3	2.0	21.1	0.7	7.0
Non-metallic mineral products	34	22.4	637.8	22.3	18.8
Automotive	4	2.6	70.8	2.5	17.7
Machinery and equipment	14	9.2	132.0	4.6	9.4
<b>Total</b>	<b>152</b>	<b>100.0</b>	<b>2,858.7</b>	<b>100.0</b>	<b>18.8</b>

Source: Ministry of Industry, Mine, and Trade; Comprehensive Report of 1390

**Table 4.6. Number, Investment, and Employment of Establishment and Operation Permits Issued for Manufacturing Groups**

	1388▲	1389▲	1390□	1389	1390	Percentage change
<b>Establishment permits</b>						
Number	13,320	15,838	15,945	18.9	0.7	
Investment (trillion rials)	850.1	881.1	816.5	3.6	-7.3	
Employment (thousand persons)	453.4	467.2	466.2	3.0	-0.2	
<b>Operation permits</b>						
Number	6,666	6,891	6,340	3.4	-8.0	
Investment (trillion rials)	207.5	194.1	159.6	-6.5	-17.8	
Employment (thousand persons)	140.2	131.1	111.2	-6.5	-15.1	

Source: Ministry of Industry, Mine, and Trade

### Permits Issued in the Mining Sector

In 1390, a total of 882 discovery certificates, with a projected reserve of 3,891 million tons of minerals, were issued by the Ministry of Industry, Mine, and Trade. Out of total 882 discovery certificates, 618 certificates were related to construction materials, 89 to metallic materials, and 175 to other minerals. Khorasan Razavi, Isfahan, Fars, and Yazd provinces had the highest shares in issued discovery certificates by 8.4, 7.5, 7.4, and 6.5 percent, respectively.

### Employment in Manufacturing and Mining Sector

Considering Iran's demographic structure, employment generation has been a major challenge facing the Iranian economy over the recent years. Data related to employment based on issued operation permits indicate that 111.2 thousand job opportunities were created in the manufacturing sector, and 10.4 thousand job opportunities were created in the mining sector. Based on the report released by the Ministry of Industry, Mine, and Trade, the number of persons employed in this sector in 1390, based on operation permits, was 18 on average. Average capital formation per employment opportunity, based on operation permits, decreased by 3.1 percent and reached Rls. 1,435.0 million.

### Producer Price Index of Manufacturing and Mining Products

The Producer Price Index (PPI) measures the average change over time in prices received by domestic producers for their output. The PPI, along with the Consumer Price Index (CPI), is a primary measure of inflation. In 1390, average PPI increased by 34.2 percent compared with 1389 (base year: 1383). Corresponding growth figure of 1389 was 16.6 percent. The PPI of "manufacturing" group grew by 54.3 percent in 1390, which was the highest among the components of the PPI.

### Industrial Exports

In 1390, the weight and value of industrial exports increased by respectively 19.4 and 36.6 percent, to 45.0 million tons and \$27.6 billion, respectively. Therefore, the average value of industrial exports was \$613 per ton, which shows 14.4 percent increase compared with the year before. Major items of industrial exports in this year included "gas and oil products" with a share of 30.8 percent in the value of industrial exports, "organic chemicals" with a share of 13.7 percent, "rubber and plastic products" with 12.3 percent, and "cast iron, iron, steel, and their articles" with 5.5 percent.

**Table 4.7. Average Capital Formation and Employment Generation of New Manufacturing Permits**

	1388▲	1389▲	1390□	1389	1390	Percentage change
<b>Establishment permits</b>						
Average capital formation forecast in each project (million rials)	63,822	55,633	51,205	-12.8	-8.0	
Average employment generation forecast by each project (person)	34	29	29	-13.3	-0.9	
Average capital formation per employment opportunity (million rials)	1,875	1,886	1,751	0.6	-7.2	
<b>Operation permits</b>						
Average capital formation by an industrial unit (million rials)	31,134	28,163	25,174	-9.5	-10.6	
Average employment generation by an industrial unit (person)	21	19	18	-9.6	-7.8	
Average capital formation per employment opportunity (million rials)	1,480	1,480	1,435	0.0	-3.1	

Source: Ministry of Industry, Mine, and Trade

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**Table 4.8. Issued Mining Permits**

	1388▲	1389	1390	Percentage change	
	1,762	1,755	1,544	1389	1390
<b>Number of exploration permits<sup>1</sup></b>	<b>1,762</b>	<b>1,755</b>	<b>1,544</b>	<b>-0.4</b>	<b>-12.0</b>
<b>Discovery certificates<sup>2</sup></b>					
Number	790	827	882	4.7	6.7
Reserve (million tons)	1,739	3,245	3,891	86.6	19.9
Operation expenses (billion rials)	178	170	285	-4.7	68.0
<b>Operation permits<sup>3</sup></b>					
Number	830	997	1,040	20.1	4.3
Extraction capacity (million tons)	44	59	68	34.8	14.9
Employment (person)	8,940	10,244	10,415	14.6	1.7
Actual reserve (million tons)	3,490	3,417	2,676	-2.1	-21.7
Investment (billion rials)	4,345	5,762	9,622	32.6	67.0
<b>Exploitation permits<sup>4</sup></b>					
Number	845	829	746	-1.9	-10.0
Extraction volume (million tons)	15	19	17	26.7	-14.8

Source: Ministry of Industry, Mine, and Trade

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

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

<sup>3</sup> It is a license issued by the Ministry of Industry, Mine, and Trade for extracting, ore dressing, and obtaining salable mining products.

<sup>4</sup> It is a license issued by the Ministry of Industry, Mine, and Trade for procurement of construction materials required for development projects, exploitation of colluviums and limited and marginal reserves as well as laboratory operations.