

**Production**

**L**arge manufacturing establishments showed a favorable performance in 1386. Based on relevant data, the production index of these establishments increased by 10.8 percent compared with the previous year. Out of 22 various industrial groups, the growth rate of 18 groups (with a share of 94.4 percent) posted an increase and that of 4 groups decreased, compared with 1385.

"Basic metals", with a relative weight of 20.1 percent and a growth rate of 16.7 percent, raised the production general index by 3.4 percentage points and had the lion's share of 31.1 percent in the general index. "Chemicals and chemical products" and "machinery and equipment n.e.c.", with 13.7 and 30.7 percent increase, ranked next, raising

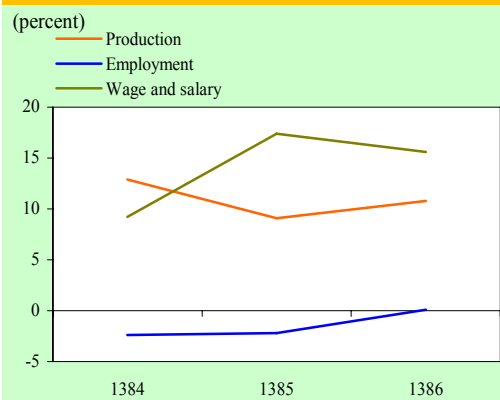
the general index by 26.4 and 13.6 percent, respectively.

In 1386, "other transport equipment", with a relative weight of 2.3 percent, accounted for the highest reduction in the production general index by 21.8 percent.

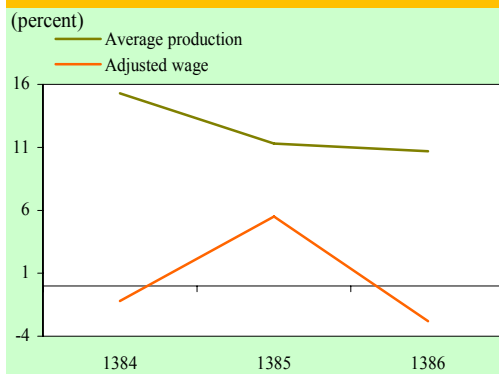
Based on the data released by the Ministry of Industries and Mines, manufacturing activities grew in 1386. Out of 36 selected products, 23 items posted an increase in production, among which 11 items (with 30.6 percent share of total) showed over 10 percent growth.

Production of plate glass increased by 20.4 percent, cement 13.5 percent, steel products 9.7 percent, and porcelain tiles 7.4 percent. Crude steel, as a major input for

**Figure 4.1. Growth trend of main indices in large manufacturing establishments**



**Figure 4.2. Growth trend of average production and adjusted wage of employees in large manufacturing establishments**



### Manufacturing and Mining Products

		1384	1385 ▲	1386	Percentage change	
					1385	1386
Cement	Thousand tons	32,633.7	35,268.2	40,046.7	8.1	13.5
Motor vehicles <sup>(1)</sup>	Thousand units	970.9	1,076.8	1,115.8	10.9	3.6
Crude steel	Thousand tons	9,603.6	9,989.5	10,298.2	9.2	3.1
Copper (Cathode)	Thousand tons	178.0	200.8	203.0	12.8	1.1
Aluminum bar	Thousand tons	218.7	205.5	202.8	-6.0	-1.3

Source: Ministry of Industries and Mines

(1) Includes various types of passenger cars, pick-ups, vans, and double-differential cars.

manufacturing and construction sectors, grew by a mere 3.1 percent.

In this year, the automotive industry raised the volume of its production. Manufacture of vans was raised by 663.1 percent, double-differential cars 84.4 percent, pick-ups 4.7 percent, and passenger cars 2.7 percent. In the production of spare parts, the production of automobile tires grew by 4.7 percent.

### Petrochemical Industry

According to the National Petrochemical Company, petrochemical products (including the performance of privatized companies) amounted to 23.9 million tons in 1386, indicating 32.7 percent increase. The corresponding growth figure of the previous year was 14.2 percent. The highest growth in production was related to Maroon One Petrochemical Complex by 293 percent.

In 1386, petrochemical exports surged by 57.7 percent to 9.5 million tons. The value of petrochemical exports amounted to \$6.1 billion, indicating 83.7 percent growth compared with the previous year. Due to the noticeable growth in the exports of petrochemical products, the share of these products in total non-oil exports rose from 22.2 percent in 1384 to 25 percent in 1385 and 39.9 percent in 1386.

In the review year, 6.4 million tons of petrochemical products valued at Rls. 32.3 trillion were sold in the domestic market, indicating 5.2 and 21.8 percent growth in terms of weight and value, respectively. Accordingly, the average unit value of petrochemical products reached Rls. 5.1 million (\$545.1), indicating 15.8 percent growth compared with the previous year.

### Petrochemical Products

	1384 ▲	1385 ▲	1386	Percentage change ○	
				1385	1386
<b>Production (thousand tons) <sup>(1)</sup></b>	<b>15,757.6</b>	<b>17,993.8</b>	<b>23,869.8</b>	<b>14.2</b>	<b>32.7</b>
<b>Exports</b>					
Volume (thousand tons)	5,216.0	6,044.0	9,530.0	15.9	57.7
Value (million dollars)	2,323.1	3,298.5	6,059.7	42.0	83.7
<b>Domestic sale</b>					
Volume (thousand tons)	4,893.5	6,066.0	6,383.0	24.0	5.2
Value (billion rials)	16,052.4	26,520.3	32,307.2	65.2	21.8

Source: National Petrochemical Company

(1) Due to the utilization of petrochemical products as intermediate products, the volume of petrochemical products is constantly higher than the sum total of exports and domestic sales.

### Government Investment

According to the Budget Law for 1386, government approved Rls. 3.2 trillion for the implementation and completion of acquisition of non-financial assets projects in manufacturing and mining sector and industrial research project. According to the Treasury General, Rls. 2.5 trillion was allocated to the mentioned sector, down by 6.2 percent compared with last year's performance.

In the review year, Rls. 23.5 billion was paid to the "industrial research project in the manufacturing and mining sector", in the framework of support for commercial and industrial research and development project, up by 24.8 percent. Of total credits, a mere 0.9 percent was allocated to this program. Considering the global competitiveness between industries and with regard to the importance of research and development in meeting development targets, this negligible share could hinder the realization of development targets in this sector.

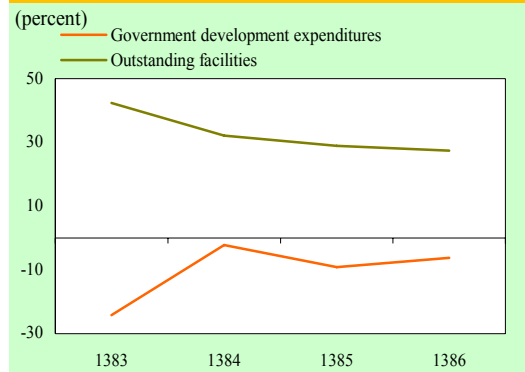
A review of government budget performance in 1386 reveals that 79.5 percent of credits approved for the acquisition of non-financial assets projects in the manufacturing and mining sector and industrial research project were realized.

### Banking Facilities

In accordance with MCC approvals, banks and credit institutions increased the

amount of their facilities extended to the manufacturing and mining sector in 1386. Therefore, the outstanding facilities extended to public and non-public manufacturing and mining sectors (excluding profit and revenue receivables) grew by 22.8 percent to Rls. 383.1 trillion at end-1386. Accordingly, the share of non-public manufacturing and mining sector in total change in the outstanding facilities extended by banks and credit institutions to non-public economic sectors was 22.3 percent. Commercial banks accounted for 97.9 percent of total change in the outstanding facilities extended to the manufacturing and mining sector.

**Figure 4.3. Changes in outstanding facilities extended to non-public manufacturing & mining sector & government development expenditures**



### Credits for Acquisition of Non-financial–National Assets in Manufacturing and Mining Sector and Industrial Research Project

				Percentage change		Share (percent)		1386	
	1384	1385	1386	1385	1386	1385	1386	Approved	Realization (percent)
	Manufacturing and mining	2,903.7	2,696.4	2,522.5	-7.1	-6.5	99.3	99.1	3,174.9
Industrial research project <sup>(1)</sup>	83.7	18.8	23.5	-77.5	24.8	0.7	0.9	32.0	73.3
<b>Total</b>	<b>2,987.4</b>	<b>2,715.2</b>	<b>2,546.0</b>	<b>-9.1</b>	<b>-6.2</b>	<b>100.0</b>	<b>100.0</b>	<b>3,206.9</b>	<b>79.4</b>

Source: Treasury General, Ministry of Economic Affairs and Finance

(1) In 1384, 1385, and 1386, industrial research project in the manufacturing and mining sector appeared under the titles of "development research project", "applied research and scientific development project", and "support for commercial and industrial research and development project", respectively.

## Chapter 4 MANUFACTURING AND MINING

Data drawn by the Ministry of Industries and Mines reveal that \$3.8 billion out of OSF was approved to be allocated to 198 investment projects in manufacturing and mining sector in 1386. The following table summarizes the OSF performance in the review year, according to industrial groups.

Based on the executive bylaw for the expansion of Small and Medium Enterprises (SMEs) approved in Azar 1384, agent banks continued the extension of facilities in 1386. The quota of agent banks was announced at Rls. 150 trillion, which was dispatched to them by the CBI. In this year, 318.1 thousand projects valuing at Rls. 128.4 trillion were approved for the implementation of which, a sum of Rls. 94.6 trillion was paid. The share of the manufacturing and mining sector in total extended facilities was 49.4 percent.

### New Manufacturing Units

According to the Ministry of Industries and Mines, investment in the manufacturing sector (mostly private sector investment) increased in 1386. Based on the data related to issued operation permits, Rls. 129.8 trillion was invested in the establishment of 8,135 new manufacturing units and the expansion of the existing units. This indicates 68.1 and 20.3 percent growth in terms of investment and number, respectively. Meanwhile, employment created by these units registered 14.6 percent growth. Based on the figures related to issued establishment permits, investment in new manufacturing units and the expansion of the existing units was projected to increase by 12.2 percent to Rls. 1,597.6 trillion. The number of these permits and employment created by them show 11.3 percent fall and 1.3 percent rise, respectively.

### Outstanding Facilities Extended by Banks and Credit Institutions to Manufacturing and Mining Sector <sup>(1)</sup> (billion rials)

	Year-end		1386			
	1385 ▲	1386	Percentage change	Change in outstanding	Total change in outstanding <sup>(2)</sup>	Relative share (percent)
<b>Non-public sector</b>	<b>293,126.7</b>	<b>373,560.4</b>	<b>27.4</b>	<b>80,433.7</b>	<b>360,020.7</b>	<b>22.3</b>
Commercial banks	242,107.9	311,873.3	28.8	69,765.4	247,627.6	28.2
Specialized banks	17,895.0	18,469.9	3.2	574.9	49,675.1	1.2
Private banks and credit institutions	33,123.8	43,217.2	30.5	10,093.4	62,718.0	16.1
<b>Public sector</b>	<b>18,730.7</b>	<b>9,533.3</b>	<b>-49.1</b>	<b>-9,197.4</b>	<b>17,653.0</b>	<b>-52.1</b>
<b>Total</b>	<b>311,857.4</b>	<b>383,093.7</b>	<b>22.8</b>	<b>71,236.3</b>	<b>377,673.7</b>	<b>18.9</b>

(1) Excludes profit and revenue receivables.

(2) It refers to the change in outstanding facilities extended by banks and credit institutions to all economic sectors.

### Summary Performance of Approved Projects Financed out of the OSF according to Industrial Groups in 1386

	Number		Value		Average amount paid to each project (million dollars)
	Number	Share (percent)	Value (million dollars)	Share (percent)	
Chemical and cellulose	53	26.8	2,230.9	58.8	42.1
Food and pharmaceutical	59	29.8	567.9	15.0	9.6
Non-metallic mineral	24	12.1	347.5	9.2	14.5
Machinery and equipment	13	6.6	112.7	3.0	8.7
Mining	13	6.6	297.2	7.8	22.9
Electrical and metallic	15	7.6	97.5	2.6	6.5
Casting and smithcraft	8	4.0	56.5	1.5	7.1
Textile and leather	10	5.1	71.2	1.9	7.1
Automobiles and automotive industry	3	1.5	12.3	0.3	4.1
<b>Total</b>	<b>198</b>	<b>100.0</b>	<b>3,793.7</b>	<b>100.0</b>	<b>19.2</b>

Source: Comprehensive report on the performance of the manufacturing and mining sector in 1386, Ministry of Industries and Mines

According to the statistics related to issued operation permits, in 1386, "chemicals and chemical products" and "other non-metallic mineral products" accounted for respectively 22.5 and 20.1 percent of total investments in the manufacturing sector. Average projected investment for each manufacturing project was Rls. 16 billion, up by 39.8 percent compared with the previous year. The 4.7 percent decline in the average employment created by each manufacturing unit and the 46.7 percent growth in the average required investment for each job opportunity are indicative of manufacturing units' tendency towards capital intensive manufacturing projects.

### Permits Issued in the Mining Sector

Despite a high growth in the value-added of the manufacturing and mining

sector, mainly attributable to the rise in the productive capacity of mines and increase in construction activities, performance of the mining sector (issuance of operation permits for new mines) indicated a mere 6.3 percent growth in terms of extraction volume. In this year, 610 operation permits, with an investment of Rls. 1,940 billion, were issued. This, together with the actual reserve of 2,345 million tons, led to an increase in extraction volume to 30.5 million tons. With the issuance of 519 discovery certificates and estimated operation expenses of Rls. 95.5 billion, the explored reserve of mines was raised to 2,694 million tons.

### Foreign Investment

According to the Ministry of Industries and Mines, in 1386, implementation of 82

### Number, Investment and Employment of Manufacturing Permits

	1384	1385	1386	Percentage change ○	
				1385	1386
<b>Establishment permits</b>					
Number	31,205	54,288	48,163	74.0	-11.3
Investment (trillion rials)	900.9	1,423.5	1,597.6	58.0	12.2
Employment (thousand persons)	979.4	1,484.2	1,503.4	51.5	1.3
<b>Operation permits</b>					
Number	6,025	6,764	8,135	12.3	20.3
Investment (trillion rials)	55.2	77.2	129.8	39.9	68.1
Employment (thousand persons)	121.3	126.2	144.6	4.0	14.6

Source: Comprehensive report on the performance of the manufacturing and mining sector in 1386, Ministry of Industries and Mines

### Investment and Employment of New Manufacturing Permits

	1384	1385	1386	Percentage change ○	
				1385	1386
<b>Establishment permits</b>					
Average investment in each project (million rials)	28,870	26,222	33,172	-9.2	26.5
Average employment created by each project (person)	31	27	31	-12.9	14.2
Average investment for each occupation (million rials)	920	959	1,063	4.3	10.8
<b>Operation permits</b>					
Average investment by an industrial unit (million rials)	9,159	11,409	15,951	24.6	39.8
Average employment created by an industrial unit (person)	20	19	18	-7.4	-4.7
Average investment for each occupation (million rials)	455	612	897	34.5	46.7

Source: Ministry of Industries and Mines

**Mining Permits Issued**

	1384	1385 ▲	1386	Percentage change ○	
				1385	1386
<b>Number of exploration permits <sup>(1)</sup></b>	<b>1,575</b>	<b>1,549</b>	<b>1,632</b>	<b>-1.7</b>	<b>5.4</b>
<b>Discovery certificates <sup>(2)</sup></b>					
Number	508	529	519	4.1	-1.9
Reserve (million tons)	2,865.5	3,079.5	2,694.2	7.5	-12.5
Operation expenses (billion rials)	172.4	159.1	95.5	-7.7	-40.0
<b>Operation permits <sup>(3)</sup></b>					
Number	654	595	610	-9.0	2.5
Extraction volume (million tons)	31.2	28.7	30.5	-8.2	6.3
Employment (person)	7,171	6,130	6,505	-14.5	6.1
Actual reserve (million tons)	2,831.4	2,811.3	2,345.1	-0.7	-16.6
Investment (billion rials)	2,402.0	1,449.0	1,939.7	-39.7	33.9
<b>Exploitation permits <sup>(4)</sup></b>					
Number	546	629	694	15.2	10.3
Extraction volume (million tons)	10.3	13.5	11.4	31.8	-15.8

Source: Ministry of Industries and Mines

- (1) It is a license issued by the Ministry of Industries and Mines which permits exploitation of minerals within a specific scope.
- (2) It is an endorsement certificate issued by the Ministry of Industries and Mines in the name of the owner of exploration permit after the completion of exploration and discovery.
- (3) It is a license issued by the Ministry of Industries and Mines for extracting, ore dressing, and obtaining salable mining products.
- (4) It is a license issued by the Ministry of Industries and Mines for procurement of construction materials required for development projects, exploitation of colluviums and limited and marginal reserves as well as laboratory operations.

manufacturing and mining projects was approved at \$8.1 billion. This was a foreign joint venture and under the Foreign Investment Promotion and Protection Act. The amount of investment shows 36.7 percent growth compared with the number of approved projects in the previous year. The share of the manufacturing and mining sector in total projects approved for attracting foreign investment was 68 percent, down by 22.1 percentage points compared with the year before.

**Employment**

Based on relevant data, employment index of large manufacturing establishments posted a mere 0.1 percent increase in 1386. "Medical, precision and optical instruments,

watches and clocks", "chemicals and chemical products", and "motor vehicles, trailers, and semi-trailers" accounted for the highest growth in employment by 6.6, 4.6, and 3.9 percent, respectively. In contrast, "other transport equipment"; "textiles"; and "wood and products of wood and cork, except furniture, manufacture of articles of straw and plaiting materials" experienced the biggest reduction by 9.7, 5.8, and 5.1 percent, respectively. Of particular note is that large manufacturing establishments hold a limited capacity for direct employment creation, mainly due to their large-scale production and utilization of capital intensive technologies.

Data related to employment based on operation permits issued by the Ministry of Industries and Mines indicate that about 144.6

**Approved Projects under "Foreign Investment Promotion and Protection Act" in 1386**

	Value of investment (million dollars)		Number of projects		Percentage change	
	1385	1386	1385	1386	Value	Number
Manufacturing and mining sector	9,263.8	8,068.4	60	82	-12.9	36.7
All economic sectors	10,278.6	11,857.8	80	104	15.4	30.0

thousand job opportunities were created in manufacturing and 6.5 thousand in mining sector. This shows 14.6 and 6 percent increase, respectively, compared with last year. Average employment rate for manufacturing projects based on operation permits fell from 19 persons in 1385 to 18 persons in 1386. The investment required for creation of each job opportunity based on operation permits was Rls. 897 million, indicating 46.7 percent increase compared with the previous year. In the review year, approximately 89.3 percent of establishment permits and 94.8 percent of operation permits were issued for projects with job opportunities for less than 50 persons. Average investment projected for each job opportunity amounted to Rls. 1,063 million, showing 10.8 percent rise compared with the previous year.

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

In 1386, the producer price index (1376=100) in the two sectors of manufac-

turing and mining advanced 15.4 and 7.6 percent, respectively, to 349.2 and 288.4. Therefore, shares of manufacturing and mining sectors in the general index (16.8 percent) were 5.9 and 0.1 percentage points, respectively.

#### **Industrial Exports**

The share of industrial exports in total non-oil exports grew significantly by 75.8 percent in terms of value in 1386. This was mostly due to development projects carried on in the manufacturing and mining sector, particularly the noticeable growth in petrochemical production and exports. The total value of industrial exports in 1386 amounted to \$11.6 billion, showing 20.1 percent growth compared with the previous year.