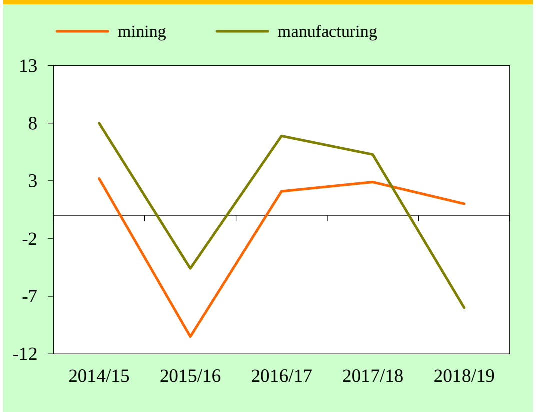
CHAPTER 4

MANUFACTURING AND MINING

After the US unilateral withdrawal from the Iran nuclear deal (JCPOA) in May 2018 and the imposition of fresh sanctions against Iran, uncertainties in the macroeconomic environment were heightened and international financial and trade transactions were adversely affected. This caused curtailment in the production level of domestic industries, especially those being more reliant on the imports of raw materials and intermediate goods. Therefore, the production index of large manufacturing establishments decreased by 8.0 percent in 2018/19. According to preliminary data of national accounts, the manufacturing sector experienced -8.0 percent growth while the mining sector recorded the positive growth rate of 1.0 percent at constant 2011/12 prices.

Figure 4.1. Growth in value of manufacturing and mining sector **(at constant 2011/12 prices)**



Production

The production index of large manufacturing establishments decreased by 8.0 percent in 2018/19 (base year 2016/17). Manufacture of motor vehicles, trailers, and semi-trailers; machinery and equipment n.e.c; chemical products; coke and petroleum products (excluding refined products); fabricated metal products except machinery and equipment; and electrical machinery and apparatus, with a total share of -7.5 percentage points, were the most responsible factors for the decrease in the production index of large manufacturing establishments. The employment index fell by 0.8 percent while the wage index increased by 21.2 percent compared with the year before.

Production of Selected Industries

In 2018/19, a total of 956.1 thousand light- and heavy-duty vehicles were manufactured, down by 37.7 percent compared with 2017/18. The major reason behind this reduction was the US withdrawal from the JCPOA, leading trade partners, threatened by the US imminent sanctions, to drastically reduce their cooperation with Iran's automotive industry. Accordingly, only 41 percent of the production capacity of the automotive industry was utilized. Meanwhile, the production of copper cathode and crude steel rose by 56.1 and 13.3 percent, respectively, while the production of aluminum bar fell by 11.7 percent compared with 2017/18.

Table 4.1. Selected Manufacturing and Mining Products

	2016/17	2017/18	2018/19	Percentage change 2017/18	Percentage change 2018/19
Cement (million tons)	55.5	54.7	56.9	-1.5	4.0
Light-duty vehicles [1, 2] (thousand)	1,333.1	1,516.1	943.9	13.7	-37.7
Crude steel (million tons)	18.8	20.8	23.6	11.0	13.3
Copper cathode (thousand tons)	190.1	159.6	249.1	-16.0	56.1
Aluminum bar (thousand tons)	338.8	351.0	310.0	3.6	-11.7

Source: Ministry of Industry, Mine, and Trade. [1]Source: Supplying Automotive Parts Company (SAPCO).

[2] Light-duty vehicles include passenger cars, pickup trucks, vans, and ambulances. In 2018/19, roughly 12.1 thousand heavy-duty vehicles (including minibuses, buses, and trucks) were manufactured.

According to the National Petrochemical Company, petrochemical products (including the performance of privatized companies) amounted to 53.3 million tons in 2018/19, indicating 0.6 percent decrease compared with the year before. Furthermore, the weight of petrochemical exports amounted to 20.3 million tons, showing 9.4 percent decrease compared with 2017/18. The value of petrochemical exports reached $11.4 billion, down by 4.8 percent compared with the year before. The domestic sales of petrochemical products rose by 0.5 percent in terms of the weight and 73.5 percent in terms of the value.

Government Investment

According to the Treasury General, the government approved a sum of Rls. 26.1 trillion in the 2018/19 Budget Law for the implementation and completion of acquisition of non-financial assets' projects in the manufacturing and mining sector. The actual amount paid on this purpose was Rls. 13.6 trillion, representing 88.1 percent increase compared with 2017/18. This strong growth was due to the 91.7 percent increase in "establishment and development of industries, mines, and manufacturing and mining infrastructure" program with a share of 97.0 percent. As a result, 52.0 percent of credits for the acquisition of non-financial assets' projects in the manufacturing and mining sector was realized. The highest realization rate of budget by 84.3 percent was related to "provision, development, reinforcement, repair, and maintenance of buildings and machinery" heading, followed by "mineral exploration" by 62.9 percent.

Table 4.2. Performance of Petrochemical Industry

	2016/17	2017/18	2018/19	Percentage change 2017/18	Percentage change 2018/19
Production (thousand tons) [1]	**50,614**	**53,629**	**53,311**	**6.0**	**-0.6**
Exports					
Weight (thousand tons)	20,851	22,410	20,307	7.5	-9.4
Value (million dollars)	9,803	12,012	11,432	22.5	-4.8
Domestic sales					
Weight (thousand tons)	16,204	17,665	17,754	9.0	0.5
Value (billion rials)	297,826	389,168	675,222	30.7	73.5

Source: National Petrochemical Company. [1] Due to the utilization of several petrochemical products for intermediate consumption, the weight of production in this sector is constantly higher than that of the sum of exports and domestic sales.

Table 4.3. Credits Paid on Acquisition of Non-financial Assets in Manufacturing and Mining Sector (billion rials)

	2016/17	2017/18	2018/19	Percentage change 2017/18	Percentage change 2018/19	2018/19 Approved	2018/19 Performance (percent)
Manufacturing and mining sector	1,849.1	7,216.8	13,576.0	290.3	88.1	26,110.5	52.0

Source: Ministry of Economic Affairs and Finance, Treasury General.

Banking Facilities

By March 2019, net outstanding facilities extended to the manufacturing and mining activities (public and non-public sectors) grew by 14.9 percent to reach Rls. 1,905.1 trillion, excluding future profits and revenues. Accordingly, the relative share of the outstanding debts of the non-public manufacturing and mining sector in total growth in the outstanding facilities extended by banks and non-bank credit institutions to all non-public sectors of the economy was 13.8 percent.

In 2018/19, a total of Rls. 7,737.3 trillion of loans and facilities were allocated by banks and non-bank credit institutions to various sectors of the economy. Out of this amount, Rls. 2,089.3 trillion was extended to the manufacturing and mining sector, showing 19.9 percent increase compared with 2017/18. The share of the manufacturing and mining sector in total allocated facilities was 27.0 percent. Of the total sum paid to the manufacturing and mining sector, 78.7 percent was in the form of financing facilities for the working capital.

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

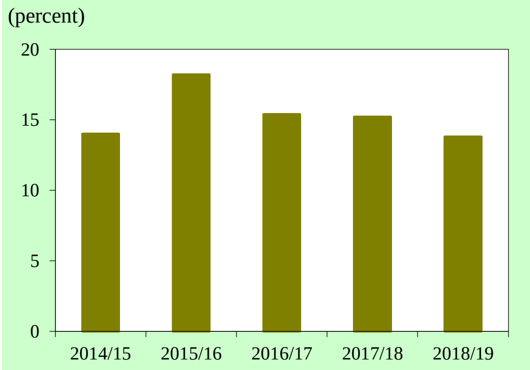


Table 4.4. Net Outstanding Facilities Extended by Banks and Non-bank Credit Institutions to Manufacturing and Mining Sector[1] (trillion rials)

	Year-end 2017/18	Year-end 2018/19	2018/19 Percentage change	2018/19 Change in outstanding	2018/19 Total change in outstanding[2]	2018/19 Relative share (percent)
Non-public sector	1,637.3	1,862.5	13.8	225.2	1,625.4	13.8
Public sector	20.4	42.6	108.8	22.2	398.7	5.6
Total	**1,657.8**	**1,905.1**	**14.9**	**247.4**	**2,024.1**	**12.2**

[1] The net outstanding is calculated upon the deduction of the exchange rate differential, future profit and commission, receipts from Mudarabah, the banks' contributions to legal partnership accounts, and overdue profit and commission headings from the outstanding debts of customers and extended facilities. Net outstanding facilities include legal partnership and direct investment contracts.

[2] It refers to growth in outstanding facilities extended by banks and non-bank credit institutions to all economic sectors.

Credit to SMEs

The supportive plan for the financing of the SMEs, implemented through the years 2016 and 2017, continued during 2018 as well as part of 2019. This was aimed at the further boosting of production, preserving the current employment level, generating new job opportunities, and expanding economic growth. Based on the guideline on Financing the SMEs for 2018/19, approved by the CBI, it was decided that the provision of the working capital of economic firms, financing of facilities required for the completion of semi-finished projects with a minimum physical progress of 60 percent, and provision of facilities for the renovation and refurbishment of guilds be set on top of the priority list of banks and credit institutions. According to data received from the registration platform containing information on facility-requiring units, a sum of Rls. 189.3 trillion worth of facilities was allocated to a total of 23.3 thousand eligible manufacturing establishments by March 2019.

New Manufacturing Units

The number of establishment permits issued in 2018/19 reached 22.6 thousand, showing 17.7 percent increase compared with 2017/18. The projected investment based on establishment permits rose by 54.3 percent to reach Rls. 2,811.9 trillion in 2018/19. In terms of the number of new establishment permits issued for different industrial groups in 2018/19, three groups of "food and beverages", "other non-metallic mineral products", and "chemical products" accounted for the highest shares in the number of establishment permits by 15.0, 13.1 and 11.1 percent, respectively. Thus, the total share of these three groups in the number of establishment permits amounted to almost 39.3 percent. The average amount of projected investment based on issued establishment permits was Rls. 124.5 billion, indicating 31.1 percent increase compared with 2017/18. Average investment projected for each employment opportunity, based on establishment permits, increased by 33.3 percent to Rls. 5.4 billion.

A total of 5,850 operation permits, with an investment of Rls. 598.3 trillion (at current prices) were issued in 2018/19, showing 8.9 and 132.0 percent increase, respectively. This remarkable rise of investment was due to the issuance of an operation permit for the Persian Gulf Star Oil Company for investment in "coke and petroleum products" group with a value of Rls. 190 trillion.

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

				Percentage change	
	2016/17	2017/18	2018/19	2017/18	2018/19
Establishment permits					
Number	15,417	19,187	22,590	24.5	17.7
Projected investment (trillion rials)	1,233.7	1,821.9	2,811.9	47.7	54.3
Projected employment (thousand persons)	365.7	451.5	522.6	23.4	15.8
Operation permits					
Number	5,207	5,372	5,850	3.2	8.9
Investment (trillion rials, current prices)	283.5	257.8	598.3	-9.1	132.0
Employment (thousand persons)	85.0	97.9	101.6	15.2	3.8

Source: Ministry of Industry, Mine, and Trade.

"Rubber and plastic products" had the highest share in the number of issued operation permits by 15.6 percent, followed by "food and beverages" with 13.9 percent and "chemical products" with 13.2 percent. In 2018/19, the average capital formation by an industrial unit, based on operation permits, amounted to Rls. 102.3 billion, indicating 113.1 percent increase compared with the year before.

Employment in Manufacturing Sector

Data related to employment based on issued operation permits indicated that 101.6 thousand job opportunities were created in the manufacturing sector in 2018/19. Based on 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 17 on average. Hence, the average capital formation per employment opportunity increased by 123.5 percent compared with 2017/18 to reach Rls. 5.9 billion in 2018/19.

Permits Issued in the Mining Sector

The total number of discovery certificates issued by the Ministry of Industry, Mine, and Trade increased by 9.2 percent to 559 in 2018/19. The number of operation permits issued with the objective of putting new mines into operation reached 648, down by 14.2 percent. The number of exploration permits given to applicants reached 1,029 in 2018/19, up by 3.1 percent compared with the year before.

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

				Percentage change	
	2016/17	2017/18	2018/19	2017/18	2018/19
Establishment permits					
Average capital formation forecast in each project (million rials)	80,022	94,953	124,475	18.7	31.1
Average employment generation forecast by each project (person)	24	24	23	-0.8	-1.7
Average capital formation per employment opportunity (million rials)	3,373	4,036	5,380	19.6	33.3
Operation permits					
Average capital formation by an industrial unit (million rials)	54,451	47,997	102,266	-11.9	113.1
Average employment generation by an industrial unit (person)	16	18	17	11.6	-4.7
Average capital formation per employment opportunity (million rials)	3,337	2,635	5,888	-21.0	123.5

Source: Ministry of Industry, Mine, and Trade.

Table 4.7. Number of Issued Mining Permits

				Percentage change	
	2016/17	2017/18	2018/19	2017/18	2018/19
Exploration permits [1]	795	998	1,029	25.5	3.1
Discovery certificates [2]	562	512	559	-8.9	9.2
Operation permits [3]	860	755	648	-12.2	-14.2

Source: Ministry of Industry, Mine, and Trade.

[1] It is a license issued by the Ministry of Industry, Mine, and Trade which permits exploration of minerals within a specific scope.

[2] 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.

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

Producer Price Index (PPI) of Manufacturing Products

The Producer Price Index (PPI) measures the average change over time in the selling prices received by domestic producers for their output. In 2018/19, the producer price index indicated 42.2 percent growth (base year 2016/17). The growth rate of the PPI in 2017/18 had stood at 10.0 percent (base year 2016/17). The producer price index for manufacturing products increased by 53.7 percent in 2018/19, when compared with the year before.

Industrial Exports

Based on the IRICA, the weight of industrial exports fell by 4.1 percent to 84.2 million tons while their value rose by 3.2 percent to $33.2 billion. Thus, the per ton value of industrial exports amounted to $394.6, up by 7.7 percent compared with 2017/18. Gas and oil products had the highest share in the value of industrial exports with 27.6 percent, followed by rubber and plastic products with 17.0 percent; cast iron, iron, steel, and their articles with 14.0 percent; and organic chemicals with 12.1 percent.