

In 2019/20, the average Consumer Price Index (CPI) of goods and services in urban areas and Producer Price Index (PPI) registered growth rates of respectively 41.2 and 37.5 percent. A comparison of these figures with the respective figures in 2018/19 (31.2 and 42.2 percent) indicates a rise in the growth rate of the CPI by 10.0, while a fall in that of the PPI by 4.7 percentage points.

17.1. General Level of Prices

After the US unilateral withdrawal from the JCPOA in May 2018 and the subsequent reimposition of economic sanctions against Iran's key economic sectors (including the oil and gas sector, the automotive industry, the banking system, and maritime transport), the exchange rate as well as the costs of international trade increased substantially. This ultimately caused the inflation rate of the CPI to face an upsurge. Previously, the inflation rate had been experiencing relatively long periods of downtrend. Thus, after two consecutive years of registering single-digit rates, the CPI inflation hit the double-digit rate of 31.2 percent in March

2019 as against 9.6 percent in March 2018. Due to the escalation of sanctions and limited access to foreign reserves, the CPI maintained its upward trend and recorded the notable growth rate of 41.2 percent in March 2020. Meanwhile, the PPI inflation, affected by the rise in the exchange rate and that in the costs of the imports of essential goods, recorded the high growth rate of 37.5 percent in March 2020. This indicated a decrease of 4.7 percentage points compared with March 2019.

Figure 17.1. Annual Inflation of CPI and PPI (base year 2016/17)

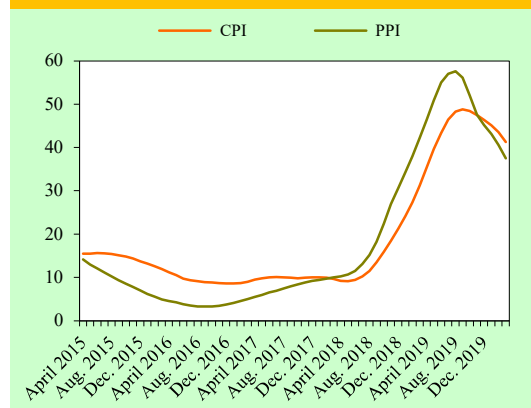


Table 17.1. Growth in Price Indices and GDP Deflator

(percent, base year 2016/17)

	March 2019	March 2020
Consumer Price Index (CPI) of goods and services in urban areas	31.2	41.2
Producer Price Index (PPI)	42.2	37.5
Export Price Index (EPI)	137.9	16.3
GDP deflator ¹	33.2	30.4
Non-oil GDP deflator	31.7	35.5

¹ GDP deflator is calculated through dividing the nominal GDP by the real GDP, multiplying the result by 100.

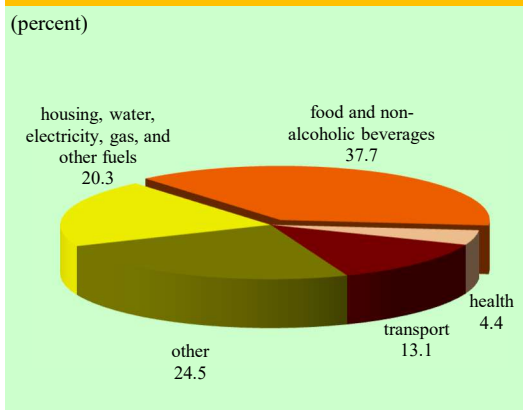
17.2. Change in Relative Prices

17.2.1. Consumer Price Index (CPI)

17.2.1.1. CPI in Urban Areas by Major Components

A review of the major components of the CPI in 2019/20 indicates that "furnishings, household equipment, and routine household maintenance" had the highest growth rate by 56.8 percent. The lowest growth rate by 16.8 percent was related to "communication". The major group of "food and non-alcoholic beverages", with a relative weight of 25.5 percent in the general CPI, had the lion's share of 37.7 percent in growth of the general CPI. After the major group of "food and non-alcoholic beverages", growth in the price index of "housing, water, electricity, gas, and other fuels" had the most direct effect on raising the general index. This group, with a relative weight of 37.1 percent in the general CPI, grew by 26.5 percent and contributed by 20.3 percent to growth in the general CPI. Therefore, the two mentioned major groups, with a total relative weight of 62.6 percent, accounted for 58.0 percent of the inflation. Among the other major components of the CPI, the price index of "transport", with a growth rate of 56.7 percent, had a share of 13.1 percent in raising the general index. The price index of "furnishings, household equipment, and routine household maintenance" group, with a growth rate of 56.8 percent compared with 2018/19, accounted for 7.1 percent of the rise in the general CPI. A review of CPI changes in 2019-2020 in each month compared with the immediate month before points to the fluctuating trend of this index. The highest rise by 4.1 percent was related to December 2019, while the lowest growth rate by 0.6 percent was related to October 2019. The average monthly inflation of the CPI stood at 2.1 percent, indicating lower fluctuations compared with 3.7 percent in 2018/19.

Figure 17.2. Share of Major Groups in CPI Inflation in 2019/20



17.2.1.2. Tradable and Non-Tradable Goods

Following the intensification of economic sanctions, the upward trend of the exchange rate continued in 2019/20. The increasing course of the exchange rate, having started as of October 2017, ultimately led to the rise in the inflation rate of tradable goods by 54.0 percent in 2019/20. The special group of non-tradable goods, which includes mostly services and is only slightly affected by the exchange rate fluctuations, registered the inflation rate of 28.2 percent in the year under review.

Figure 17.3. CPI Inflation by Tradable and Non-tradable Goods (base year 2016/17)

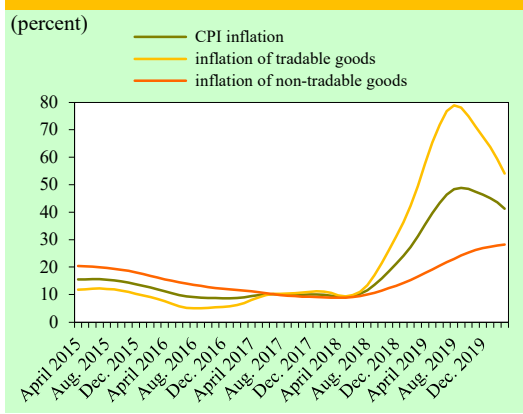


Table 17.2. Consumer Price Index (CPI) in Urban Areas (2016/17=100)

	Relative weight in base year (percent)	2018/19	2019/20	Percentage change		Contribution to growth of CPI ¹ in 2019/20 (percent)
				2018/19	2019/20	
Special groups						
Goods	48.5	161.1	244.5	46.3	51.7	68.2
Services	51.5	127.5	164.0	16.8	28.7	31.8
General index	100.0	143.8	203.2	31.2	41.2	100.0
Major groups and selected subgroups						
Food and non-alcoholic beverages	25.5	166.5	254.2	46.2	52.7	37.7
Meat and meat preparations	5.3	172.2	256.3	47.9	48.9	7.5
Fish and aquatic invertebrates preparations	0.6	182.3	331.0	68.7	81.6	1.5
Cereals and cereal preparations, bread	4.4	140.6	202.3	24.0	43.9	4.6
Animal and vegetable oils and fats	0.8	146.7	194.6	31.0	32.6	0.7
Fruits, oil seeds and oleaginous fruits	5.5	194.3	303.7	75.5	56.3	10.2
Vegetables, pulses, and vegetable products	3.5	171.5	299.6	41.4	74.7	7.5
Dairy products and birds' eggs	3.0	151.0	203.1	34.6	34.5	2.6
Tobacco	0.4	205.2	253.5	99.1	23.6	0.3
Housing, water, electricity, gas, and other fuels	37.1	122.5	155.0	13.3	26.5	20.3
Rental value of non-owner occupied housing	7.7	122.8	156.6	13.4	27.5	4.4
Imputed rental value of owner-occupied housing	25.4	123.1	156.5	13.6	27.1	14.3
Maintenance and repair services	1.7	131.7	182.6	22.2	38.6	1.4
Water	0.5	106.3	108.0	6.3	1.6	0.0
Electricity, gas, and other fuels	1.8	106.9	110.9	3.4	3.7	0.1
Clothing and footwear	4.6	142.8	219.1	35.5	53.4	5.9
Furnishings, household equipment, and routine household maintenance	4.3	171.2	268.6	58.3	56.8	7.1
Transport	8.9	153.8	241.1	44.4	56.7	13.1
Communication	2.3	139.7	163.1	31.9	16.8	0.9
Health	7.8	128.8	162.3	17.0	26.0	4.4
Recreation and culture	2.1	180.8	271.5	64.0	50.2	3.2
Education	2.0	130.1	156.2	16.8	20.1	0.9
Restaurants and hotels	1.8	141.4	212.5	27.0	50.3	2.2
Miscellaneous goods and services	3.2	162.9	234.9	47.9	44.2	3.9

¹ For the calculation of this variable, rounded figures of relative weight and price index have been used.

17.2.1.3. CPI by Province

A review of CPI developments in urban areas by province reveals that Golestan, Kermanshah, and Kohgiluyeh va Boyer-Ahmad, with increases of respectively 49.2, 48.9 and 48.2 percent in the CPI, had the highest inflation rates. Sistan and Baluchistan, Hamedan, and Markazi Provinces, with growth rates of respectively 47.4, 47.3 and 45.7 percent, were next. Hormozgan and Fars, on the other hand, accounted for the lowest inflation rates by 37.0 and 37.1 percent, respectively. Inflation rate in Tehran Province was 39.4 percent in 2019/20.

17.2.1.4. CPI in Rural Areas ¹

The CPI in rural areas increased by 37.3 percent in 2019/20. Inflation in rural areas was the result of growth in the price index of "goods" with 43.1 percent and that in the price index of "services" with 22.0 percent.

17.2.2. Producer Price Index (PPI)

In 2019/20, the Producer Price Index (PPI) increased by 37.5 percent compared

¹ Source: "Consumer Price Index of Goods and Services in Rural Areas" published by the SCI (base year 2016/17).

with 2018/19. The growth rates of this index were 10.0 percent in 2017/18 and 42.2 percent in 2018/19. Among the major components of the PPI, "manufacturing" and "transportation and storage" groups made the greatest contribution to raising the PPI general index by 49.4 and 25.3 percent, respectively. The price index of manufacturing group enjoyed a growth rate of 36.1 percent in 2019/20. "Manufacturing", with a relative weight of 47.1 percent in the general PPI, had a share of 49.4 percent in growth of the general PPI in 2019/20. The price index of "transportation and storage" group, with a relative weight of 16.9 percent in the general PPI and a growth rate of 58.8 percent, made a contribution of 25.3 percent to the rise of the general index.

Reviewing the PPI changes in 2019-2020 in each month compared with the immediate month before (monthly PPI inflation) shows that the highest rate of inflation by 5.1 percent was related to May 2019, while the lowest rate by 0.2 percent was related to November 2019. The average monthly inflation of the PPI reached 1.8 percent in 2019/20, which was much lower than the average rate in the year before (4.2 percent).

17.2.3. Export Price Index (EPI)

Export Price Index is used in Iran as an indicator of the change in the general price level of non-oil exports. For the calculation of this index, the price of exportable goods in foreign currency is converted into the Iranian rial to reflect both the change in the price of exportable goods in international markets and the developments in the exchange rate. The EPI indicated an increase of 16.3 percent in 2019/20, as against rises by 18.3 and 137.9 percent in 2017/18 and 2018/19, respectively. The price indices of "minerals" and "vegetables" (considering their relative weights) had major impacts on the rise of the export price index by 49.4 and 12.9 percent, respectively.

17.3. Price Trends and Return on Assets

Comparing "return on assets" with inflation reveals that the growth rate of TEPIX (187.1 percent) was higher than the inflation rate (41.2 percent). "Price of residential units in Tehran per square meter" was the second group to experience a higher-than-inflation growth rate of 64.3 percent.

Table 17.3. Producer Price Index (PPI)¹

	Relative weight in base year (percent)	2019/20		Percentage change		Contribution to growth of PPI ² in 2019/20 (percent)
		2018/19	2019/20	2018/19	2019/20	
		2018/19	2019/20	2018/19	2019/20	
General index	100.0	156.4	215.1	42.2	37.5	100.0
Major groups						
Agriculture, forestry, and fishing	18.6	155.0	208.7	39.6	34.6	17.0
Manufacturing	47.1	170.2	231.7	53.7	36.1	49.4
Transportation and storage	16.9	149.2	237.0	40.1	58.8	25.3
Information and communication	1.5	106.6	117.7	3.5	10.4	0.3
Restaurants and hotels	0.8	141.4	212.5	27.0	50.3	0.9
Education	2.5	130.3	157.1	16.8	20.6	1.1
Human health and social work activities	11.6	127.8	155.4	15.4	21.6	5.5
Other service activities	0.9	134.6	168.0	19.9	24.8	0.5
Special groups						
Services ³	34.3	138.1	195.7	27.4	41.7	33.6

¹ The classification of groups is based on ISIC, Rev. 4. ² For the calculation of this variable, rounded figures of relative weight and price index have been used. ³ Includes "transportation and storage", "information and communication", "restaurants and hotels", "education", "human health and social work activities", and "other service activities".

Table 17.4. Export Price Index (EPI)

(2016/17=100)

	Relative weight in base year (percent)	2018/19	2019/20	Percentage change		Contribution to growth of EPI ¹ in 2019/20 (percent)
				2018/19	2019/20	
General index	100.0	281.4	327.2	137.9	16.3	100.0
Major groups						
Animal products	3.5	263.2	321.7	128.1	22.2	4.4
Vegetables	8.0	283.7	357.8	158.9	26.1	12.9
Animal and vegetable fats and oils	0.2	244.3	306.6	139.3	25.5	0.3
Food and live animals; beverages and tobacco	3.5	236.4	293.4	116.1	24.1	4.3
Minerals	40.4	279.8	336.1	129.4	20.1	49.4
Chemicals and related products, not elsewhere specified	14.5	287.8	314.9	154.1	9.4	8.5
Rubber manufactures	12.1	267.3	286.4	132.6	7.1	5.0
Hides, skins and furskins, raw	0.2	322.2	492.6	168.4	52.9	0.8
Wood manufactures	0.1	196.8	194.4	108.2	-1.2	*
Paper, paperboard and pulp	0.1	197.4	292.0	79.1	47.9	0.3
Textile yarn, fabrics and articles	2.5	225.0	249.4	103.3	10.8	1.3
Footwear	0.2	166.6	162.0	77.3	-2.8	*
Articles of stone	2.3	232.9	267.0	113.6	14.6	1.7
Basic metals and articles of basic metals	10.0	345.1	379.2	163.6	9.9	7.4
Mechanical and electrical machinery, apparatus and appliance	2.0	250.3	323.6	130.5	29.3	3.1
Road vehicles; other transport equipment	0.4	295.0	357.6	158.4	21.2	0.6
Special groups						
Petrochemical products	38.5	294.0	337.8	143.2	14.9	36.8

¹ For the calculation of this variable, rounded figures of relative weight and price index have been used.

"Price of full Bahar Azadi gold coin (new design)", the "nominal value of the US dollar (unofficial market)", and the "nominal value of the euro (unofficial market)" were among groups experiencing growth rates

lower than the inflation rate by 29.9, 25.0, and 20.0 percent, respectively. The "rental value of non-owner occupied housing" was another group experiencing a lower-than-inflation growth rate by 27.5 percent.

Table 17.5. Price Trends and Return on Assets

(percent)

	Growth during the year			Average rate of return ¹	Standard deviation	Sharpe Ratio ²
	2017/18	2018/19▲	2019/20			
Price of residential units in Tehran per square meter ³	17.0	67.0	64.3	41.8	28.1	0.9
TEPIX	24.7	85.5	187.1	73.4	82.0	0.7
Rental value of non-owner occupied housing	8.3	13.4	27.5	14.5	10.0	-0.3
Nominal value of the US dollar (unofficial market)	11.0	155.6	25.0	35.0	79.7	0.2
Nominal value of the euro (unofficial market)	19.0	150.2	20.0	38.5	75.4	0.3
Price of full Bahar Azadi gold coin (new design)	19.4	168.0	29.9	46.1	82.9	0.3
Provisional profit rate of participation papers issued by government ⁴	17.5	18.0	18.0	17.8	0.3	0.0
Provisional profit rate of one-year deposits (highest approved rate)	15.0	15.0	15.0	15.0	0.0	0
CPI of goods and services (inflation rate)	9.6	31.2	41.2	23.1	16.2	0.3

¹ The average rate of return on assets is calculated using the geometric mean method over the 2017-2020 period. The geometric mean is the n^{th} root of the product of n numbers.

² The Sharpe Ratio for each asset (risky asset) is calculated by subtracting the average rate of return for that asset from the average rate of return for the "provisional profit rate of participation papers issued by government" group (considering the risk-free nature of participation papers) and dividing the result by the standard deviation for that asset (risky asset).

³ Source: SCI

⁴ Includes only those participation papers whose first date of issuance was in the year under review.