Index Numbers of Manufacturing Industries for the Second Quarter of 2019

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Introduction

Index number for manufacturing IIP (Indices of Industrial Production) includes indices of input and output and IIP is one of the most important statistical measures which helps to know inflation of goods produced locally, working to keep abreast of the development of the volume of industrial production and knowledge of its trends, at this juncture, base year 2012 has updated by index numbers department instead of 2007 as it considered a modern year and this will help to keep a close eyes on industrial products size and know its trends.

It is used to estimate national account indicators (Gross domestic product (GDP), (GDP) per capita government and private expenditure, gross fixed capital formation and exports) with fixed prices as well as other uses.

In view of this and within the tireless efforts of CSO in sorted out these indices for different economic activities, index numbers department has prepared this report on index number of products quantities and inputs and outputs prices in manufacturing for large industrial establishments for Second quarter 2019 with base year 2012.

Where the department started preparing this new series of industrial indices starting in 2015 after the recalculation of the chapters of 2014 on the new basis 2012 .

Methodology

1. Base year

Input and output prices in 2012 have been used as a base year to calculate the index numbers of output and input for manufacturing industry.

As well as products quantities in 2012 have been also used to calculate index number for manufacturing industry.

2. Commodity basket

Products sample of inputs and outputs price indices has been selected by depending on the relative importance of industrial products where all products mentioned in the quarterly index number questionnaire of manufacturing industries were chosen by excluding products that are of a relative importance near to zero, where outputs sample size was (263) industrial product of (333) industrial product distributed on (18) divisions by ISIC4 after excluding one division for their low relative importance . The total value of these chosen products was (98.9%) of the total value of production in manufacturing industries sector.

As for inputs sample size, it was (342) industrial input (production staff) distributed on (18) divisions of ISIC4, the total value of these selected inputs was (86.6%) of all production staff in manufacturing industries total value.

Survey included all large industrial establishments which amounted to (600) establishments, about (76) public establishments & (524) industrial establishments in private and mixed sectors.

3. Weights

Input and output prices

Production value in manufacturing industries by divisions (second distribution for industry) that had been taken from industrial statistics directorate for 2012 was adapted to account the relative importance of a division (industry weight) as set forth below:

relative importance for division (industry weight) =

$$\frac{\text{production value for division}}{\text{total of production value in manufacturing industry}} \times 100 \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots \dots (1)$$

These weights are used to calculate general index number of inputs and outputs prices, while weights of selected industrial products (or inputs) within each division was

calculated according to the relative importance of production value (or using) of product (product or industrial input) to the total production value (or using) of the division that product is related to multiplied by the relative importance of division production (industry weight) as set forth below:

Industrial product weight $= \dfrac{\text{value of product}}{\text{total of division production value}} \times$ industry weight ……..........….. (2)

Industrial inputs weight $= \dfrac{\text{input value}}{\text{total of division production value}} \times$ industry weight……………… (3)

These weights are used in calculating inputs and outputs price indices of manufacturing industry divisions.

− Product quantities

Production value in manufacturing industries by divisions (second distribution for industry) that had been taken from industrial statistics directorate for 2012 was adapted to account the relative importance of a division (industry weight) as set forth below:

relative importance for division (industry weight) $=$

$\dfrac{\text{production value for division}}{\text{total of production value in manufacturing industry}} \times 100$……..................................………. (4)

These weights are used to calculate general index number of industrial production, production value in each of food-stuff industry, beverages, refined petroleum products industry and other non-metallic mineral products industry was at a rate of (74.9%) of the total production value in manufacturing industries sector.

While weights selected of industrial products industry within each division were calculated by the relative importance base of production value of the product to the total division production that product belongs to multiplied by the relative importance of division production (industry weight) as set forth below:

Industrial product weight $= \dfrac{\text{value of product}}{\text{total of division production value}} \times$ industry weight ……… (5)

These weights are used in calculating industrial production indices by manufacturing industries divisions.

4. Calculation formula

Laspeyres, prices formula which depends on weights of the base year 2012 has been used in calculating index number in manufacturing industries, as set forth below:

$$I_P = \frac{\sum \frac{P_1}{P_0} \times W}{\sum W} \times 100 \quad\text{……...} (6)$$

Where:
IP= index number of industrial production prices
P1= price average in current quarter
P0= price average in 2012
W= weight

Index numbers prices are calculated by divisions then these numbers will be adapted with weights in calculating general index number in the very quarter of the year.

Laspeyres, formula which depends 2012 base year weights has been used in calculating industrial production in manufacturing industries, as set forth below:

$$I_Q = \frac{\sum \frac{Q_1}{Q_0} \times W}{\sum W} \times 100 \dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots\dots (7)$$

Where:

IQ= index number for industrial production

Q1= production in current year

Q0= production in 2012

W= weight

Industrial production index numbers are being calculated by divisions then these numbers will be adapted with weights in calculating general index number in the very quarter.

5. Source of Data

Calculating index numbers prices of inputs and outputs prices in the large industrial establishments had been depended on data in the quarterly questionnaire of indices by manufacturing industries in the large industrial establishments which is provided by Industrial Statistics Directorate, these data represent (15) governorates excluding Industrial realm in Kurdistan region.

6. Product classification

International Standardized Industrial Classification ISIC4 was adapted to classify manufacturing industry activity to (18) divisions (2-digits) and after excluding one division (tobacco products), because of their low relative importance that included industrial products until (7-digits).

Table below shows divisions and their weights, number of products, inputs items and number of large industrial establishments

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Divisions, weights, and number of industrial products items and inputs included and number of the large industrial establishments
Table. (1)

code	Division	Weight	number of establishments	number of input Items	number of output items
10	Food-Stuff and	7.565	132	60	34
11	Beverages	6.393	13	5	2
13	Textiles	0.624	6	15	18
14	Clothes, fur preparing and coloring	0.209	1	10	15
15	Tanning and preparing leather, making baggage ,hand bags, saddles, reins and shoes	0.111	1	5	5
17	Paper and paper products	0.079	1	6	3
18	Printing, publishing and copying recorded News media	0.322	9	15	16
19	Refined petroleum products	42.161	27	16	14
20	Chemical products	6.050	10	76	43
22	Rubber and Plastic products	0.642	9	11	12
23	Nonmetallic minerals products (Other)	23.56	372	39	36
25	Compound minerals products excluding machinery and equipments	2.092	2	37	13
26	Radio, TV and communications equipments	4.983	1	1	19
27	Apparatus and appliances Non - classified elsewhere	0.070	9	11	5
28	Electric equipments & devices Non - classified elsewhere	1.514	2	20	13
29	Engine vehicles and trailer & half trailer vehicles	3.512	2	3	5
30	Other transportation equipments	0.052	1	2	2
31	Furniture and manufactured products Non- classified elsewhere	0.061	2	10	8
	General Index Number	100	600	342	263

7. Contribution rates

It represents the contribution of each division in manufacturing industries in annual and quarterly change rate.

Contribution rates in quarterly (annual) change rate of the general index number are calculated as in the equation below:

$$CR_i = \frac{IQ_{i1} - IQ_{i0}}{IQ_0} \times W_i \ (\ i = 1، 2 \dots 18\ )$$

CR_i: contribution rate of division i in the quarterly change rate (annual) of the general index number

IQ_{i1}: index number of division i in the current quarter (year)

IQ_{i0}: general index number in the previous quarter (year)

IQ_0: General index number in the previous quarter (year)

W_i: relative importance for division (weight)

While contribution rate in quarterly (annual) change rate of the general index number (percentage) is being calculated as in the below equation:

$$CR_i \ (\%) = \frac{CR_i}{CR} \times 100 \ (\ i = 1، 2 \dots 18\ )$$

CR_i: contribution rate of division i in quarterly (annual) change rate of the general index number
CR: quarterly (annual) change rate for general index number

Price Index Numbers Trends in Manufacturing Industries

* In table number (2) outputs price indices in manufacturing industries for the Second quarter of 2019 has amounted to (170.7%) by 2012 as a base year registering an increase of (0.2%) as compared with the First quarter of 2019 which reaches to (170.4%) as a result of the increase in index numbers for each of food - stuff , beverages, refined oil products, chemical products and especially other non-minerals products at the rates of (0.3%),(0.2%), (0.3%), (0.2%) and (0.1%) respectively as these industries are of high weights (7.565%),(6.393%), (42.161%), (6.050%), (23.56%) respectively , in addition to index numbers increase in all other divisions despite their low relative importance, as for output price indices annual comparison for the Second quarter of 2019, the annual change rate amounted to (0.9%) as compared with the Second quarter of 2018 as a result of the high increase in each of food - stuff division, refined oil products, chemical products divisions and especially other non- minerals products for their high relative importance in addition to the increase in index numbers prices for all other divisions as compared with the Second quarter of 2018.

* In table number (3) the highest contribution rate in the quarterly change rate of outputs general index number was in petrol Refined petroleum products at a rate of (62.9%) then the other food-stuff division at a rate of (11.2%) then Beverages and at a rate of (7.6%) and finally other non-minerals products division at a rate of (7.1%) contribution rates are less in the other divisions

* Also in table number (4) the highest contribution rate in the annual change rate of outputs general index number was (60.8%) in oil Refined petroleum products then comes other non-minerals products at a rate of (14.5%) then food-stuff and division at a rate of (7.8%) and finally Beverages and division at a rate of (5.7%) while contribution rates for all other divisions are less.

*As for inputs prices in manufacturing industries, index number approached to (168.4%) for the Second quarter of 2019 with 2012 as a base year, registering an increase of (0.2%) as compared with the First quarter of 2019 which is at a rate of (168.1%) as a result of index numbers increase at each of food-stuff industry, petrol refined products, chemical products and especially non-minerals products at the rates of (0.1%),(0.3%), (0.2%), (0.3%), (0.2%) respectively as these products are of high weights in addition to the increase in index numbers prices in all other divisions as compared with the First quarter of 2019 as in table number (5)

Regarding the annual comparison of input index prices for the Second quarter of 2019; the annual change rate approached to (0.8%) because of the increase in index numbers for each of food-stuff division, petrol refined products, chemical products division and non-minerals products division as a result of their high relative importance in the inputs general index number in manufacturing industry, in addition to the increase of index numbers in all other divisions.

* In table number (6) the highest contribution rate in the inputs general price indices quarterly change rates was in oil Refined petroleum products at a rate of (50.8%) then the other non-minerals products division at a rate of (21.3%) then Beverages at a rate of (9.6%) and finally Chemical products division at a rate of (7.1%) ; contribution rates for other divisions are less.

* In table number (7) the highest contribution rate in the annual change rate of inputs price indices in oil Refined petroleum products at a rate of (55.7%) then non-minerals products at a rate of (19.6%) then Beverages at a rate of (7.1%) and finally food-stuff division at a rate of (6.9%) while contribution rates for all other divisions are less.

Index Numbers Trends

* Table number (8) indicates that the industrial production of general index number for the Second quarter of 2019 was (163.9%) with 2012 as a base year at a rate of (0.2%) as compared with the First quarter of 2019 which amounted to (163.5%) , the increase is basically due to indices increase for each of food - stuff and, refined petroleum products division, chemical products and other nonmetallic minerals products at the rates of (0.2%),(0.2%), (0.3%), (0.2%) and (0.2%) respectively as they are of a high relative importance which amounted to(7.565%),(6.393%), (42.161%) , (6.050%), (23.56%) respectively , in addition to index numbers increase in all other divisions and in fluctuated rates despite their low relative importance .

While in the comparison field with the Second quarter of 2018 (annual comparison) ; industrial production indices witnessed an increase amounted to (0.9%) which returns basically to the increase in index numbers in each of food-stuff and beverages division, refined petroleum products division, chemical products and nonmetallic minerals products divisions at the rates of (0.9%), (0.7%), (1.0%), (0.7%), (0.9%) respectively as they are of high relative importance which amounted to (7.565%),(6.393%), (42.161%) , (6.050%), (23.56%) respectively , in addition to indices increase in all other divisions and in fluctuated rates despite their low relative importance.

* In table number (9) the highest contribution rate in the general index number quarterly change rate was in the refined petroleum products division of (52.2%) then comes Nonmetallic minerals products (Other) division at a rate of (23.5%) then Beverages division at a rate of (8.1%) and finally food-stuff division at a rate of (5.7%) and contribution rates were less than that in all other divisions.

* In table number (10) The highest contribution rate in the annual change rate of the general index number was (50.3%) in the refined petroleum products division ,then comes the nonmetallic minerals products (other) division at a rate of (23.2%) then Beverages division at a rate of (8.6%) and finally food-stuff division at a rate of (7.0%) and contribution rates were less than that in all other divisions

Output Price Indices by Manufacturing Industries Divisions for the Second Quarter and the Annual and Quarterly Change Rates of 2019

Table. (2)   （100=2012）

code	Division	Weight	index number Second Quarter 2018	index number First Quarter 2019	index number Second Quarter 2019	Quarter change Rate %	Annual change Rate %
10	Food-Stuff	7.565	182.9	183.9	184.4	0.3	0.8
11	Beverages	6.393	182.2	183.1	183.5	0.2	0.7
13	Textiles	0.624	140.1	140.7	141.0	0.2	0.6
14	Clothes, fur preparing and coloring	0.209	134.9	135.4	135.5	0.1	0.4
15	Tanning and preparing leather, making baggage ,hand bags, saddles, reins and shoes	0.111	130.6	131.1	131.3	0.2	0.5
17	Paper and paper products	0.079	139.3	140.1	140.2	0.1	0.6
18	Printing, publishing and copying recorded News media	0.322	133.9	134.8	135.1	0.2	0.9
19	Refined petroleum products	42.161	182.5	184.1	184.6	0.3	1.2
20	Chemical products	6.050	150.5	151.3	151.6	0.2	0.7
22	Rubber and Plastic products	0.642	156.2	156.5	156.7	0.1	0.3
23	Nonmetallic minerals products (Other)	23.56	161.2	162.0	162.1	0.1	0.6
25	Compound minerals products excluding machinery and equipments	2.092	144.3	145.1	145.2	0.1	0.6
26	Radio, TV and communications equipments	0.070	138.2	138.6	138.6	0.0	0.3
28	Other general purposes machines industry	4.983	146.3	146.9	147.0	0.1	0.5
27	Engine and electrical generators and the industry of divides for distribution and controlling the electric	1.514	129.5	130.1	130.3	0.2	0.6
29	Cars assembly industry of	3.512	123.6	124.0	124.1	0.1	0.4
30	Bicycles and Wheelchair industry of	0.052	148.9	149.2	149.2	0.0	0.2
31	Furniture and manufactured products Non- classified elsewhere	0.061	141.0	141.5	141.6	0.1	0.4
	General Index Number	100	169.2	170.4	170.7	0.2	0.9

Output Price Indices by Manufacturing Industries Divisions for the Second and First Quarter of 2019

Figure. (1)
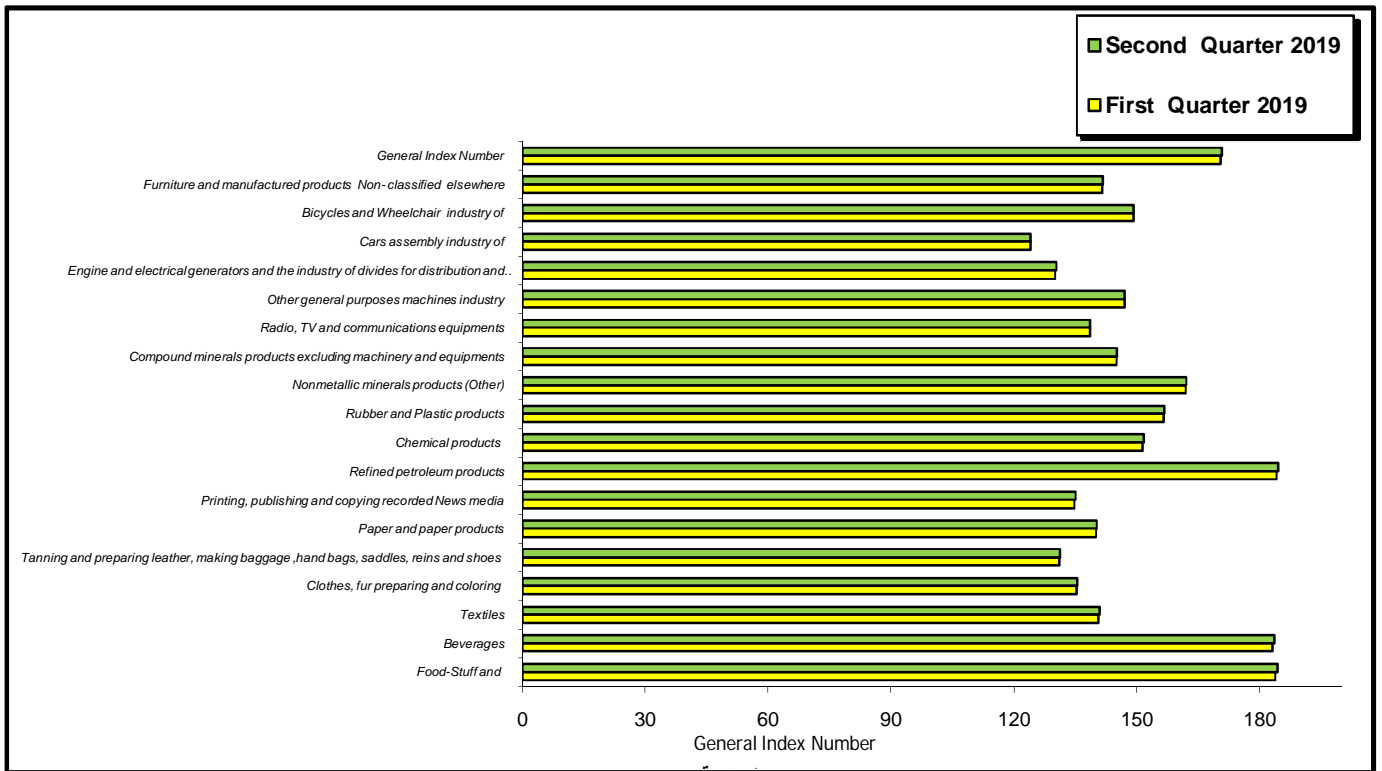
Output Price Indices by Manufacturing Industries Divisions for the Second Quarters of 2018 and 2019

Figure. (2)
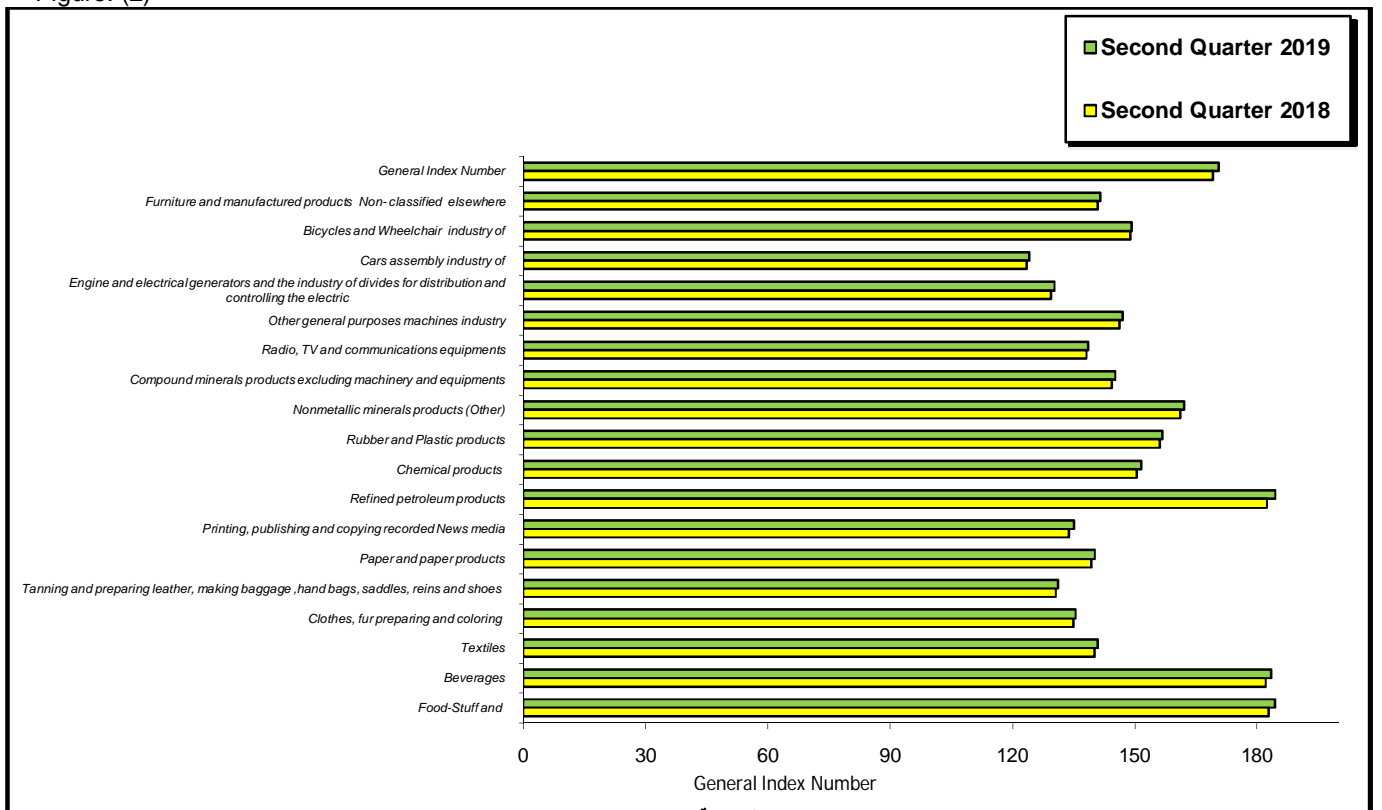
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Contribution Rates to the Quarterly Change Rate for the General Index Number of Output Prices for the Second Quarter of 2019

Table. (3)

code	Division	Weight	Quarterly change Rate %	Contribution to Quarterly index change Rate	Contribution to Quarterly index change Rate %
10	Food-Stuff	7.565	0.3	0.022	11.2
11	Beverages	6.393	0.2	0.015	7.6
13	Textiles	0.624	0.2	0.001	0.5
14	Clothes, fur preparing and coloring	0.209	0.1	0.000	0.0
15	Tanning and preparing leather, making baggage ,hand bags, saddles, reins and shoes	0.111	0.2	0.000	0.0
17	Paper and paper products	0.079	0.1	0.000	0.0
18	Printing, publishing and copying recorded News media	0.322	0.2	0.001	0.5
19	Refined petroleum products	42.161	0.3	0.124	62.9
20	Chemical products	6.050	0.2	0.011	5.6
22	Rubber and Plastic products	0.642	0.1	0.001	0.5
23	Nonmetallic minerals products (Other)	23.56	0.1	0.014	7.1
25	Compound minerals products excluding machinery and equipments	2.092	0.1	0.001	0.5
26	Radio, TV and communications equipments	0.070	0.0	0.000	0.0
28	Other general purposes machines industry	4.983	0.1	0.003	1.5
27	Engine and electrical generators and the industry of divides for distribution and controlling the electric	1.514	0.2	0.002	1.0
29	Cars assembly industry of	3.512	0.1	0.002	1.0
30	Bicycles and Wheelchair industry of	0.052	0.0	0.000	0.0
31	Furniture and manufactured products Non- classified elsewhere	0.061	0.1	0.000	0.0
	General Index Number	100	0.2	0.197	100

Contribution Rates to the Annual Change Rate for the General Index Number of Output Prices for the Second Quarter of 2019

Table. (4)

code	Division	Weight	Annual change Rate %	Contribution to annual index change Rate	Contribution to annual index change Rate %
10	Food-Stuff	7.565	0.8	0.067	7.8
11	Beverages	6.393	0.7	0.049	5.7
13	Textiles	0.624	0.6	0.003	0.3
14	Clothes, fur preparing and coloring	0.209	0.4	0.001	0.1
15	Tanning and preparing leather, making baggage ,hand bags, saddles, reins and shoes	0.111	0.5	0.000	0.0
17	Paper and paper products	0.079	0.6	0.000	0.0
18	Printing, publishing and copying recorded News media	0.322	0.9	0.002	0.2
19	Refined petroleum products	42.161	1.2	0.523	60.8
20	Chemical products	6.050	0.7	0.039	4.5
22	Rubber and Plastic products	0.642	0.3	0.002	0.2
23	Nonmetallic minerals products (Other)	23.56	0.6	0.125	14.5
25	Compound minerals products excluding machinery and equipments	2.092	0.6	0.011	1.3
26	Radio, TV and communications equipments	0.070	0.3	0.000	0.0
28	Other general purposes machines industry	4.983	0.5	0.021	2.4
27	Engine and electrical generators and the industry of divides for distribution and controlling the electric	1.514	0.6	0.007	0.8
29	Cars assembly industry of	3.512	0.4	0.010	1.2
30	Bicycles and Wheelchair industry of	0.052	0.2	0.000	0.0
31	Furniture and manufactured products Non- classified elsewhere	0.061	0.4	0.000	0.0
	General Index Number	100	0.9	0.860	100

Input Price Indices by Manufacturing Industries Divisions for the Second Quarter and the Annual and Quarterly Change Rates of 2019

Table. (5) （100=2012）

code	Division	Weight	index number Second Quarter 2018	index number First Quarter 2019	index number Second Quarter 2019	Quarter change Rate %	Annual change Rate %
10	Food-Stuff	7.565	160.7	161.8	162.0	0.1	0.8
11	Beverages	6.393	159.5	160.6	161.1	0.3	1.0
13	Textiles	0.624	128.7	129.1	129.2	0.1	0.4
14	Clothes, fur preparing and coloring	0.209	131.9	132.2	132.5	0.2	0.5
15	Tanning and preparing leather, making baggage ,hand bags, saddles, reins and shoes	0.111	126.5	126.8	127.0	0.2	0.4
17	Paper and paper products	0.079	135.2	135.4	135.5	0.1	0.2
18	Printing, publishing and copying recorded News media	0.322	128.0	128.9	129.0	0.1	0.8
19	Refined petroleum products	42.161	187.3	188.8	189.2	0.2	1.0
20	Chemical products	6.050	149.9	150.5	150.9	0.3	0.7
22	Rubber and Plastic products	0.642	128.5	128.5	128.6	0.1	0.1
23	Nonmetallic minerals products (Other)	23.56	155.5	156.4	156.7	0.2	0.8
25	Compound minerals products excluding machinery and equipments	2.092	134.8	135.2	135.3	0.1	0.4
26	Radio, TV and communications equipments	0.070	128.6	128.7	128.7	0.0	0.1
28	Other general purposes machines industry	4.983	138.9	139.3	139.4	0.1	0.4
27	Engine and electrical generators and the industry of divides for distribution and controlling the electric	1.514	141.7	142.6	142.9	0.2	0.8
29	Cars assembly industry of	3.512	149.4	150.0	150.3	0.2	0.6
30	Bicycles and Wheelchair industry of	0.052	137.1	137.6	137.7	0.1	0.4
31	Furniture and manufactured products Non- classified elsewhere	0.061	130.0	130.2	130.2	0.0	0.2
	General Index Number	100	167.0	168.1	168.4	0.2	0.8

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Input Price Indices by Manufacturing Industries Divisions for the Second and First Quarter of 2019

Figure. (3)

Input Price Indices by Manufacturing Industries Divisions for the Second Quarter of 2018 and 2019

Figure. (4)
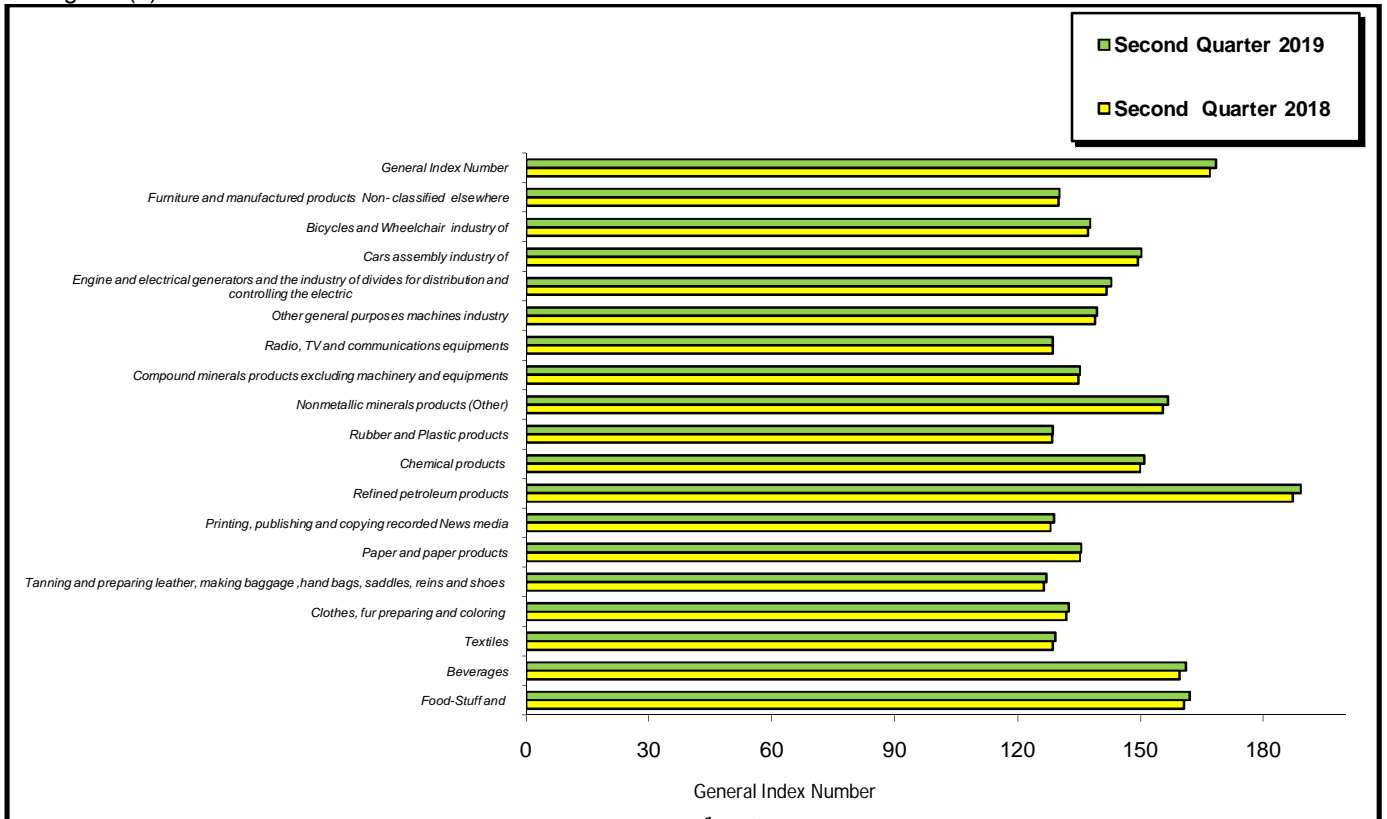
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Contribution Rates to the Quarterly Change Rate for the General Index Number of Input Prices for the Second Quarter of 2019
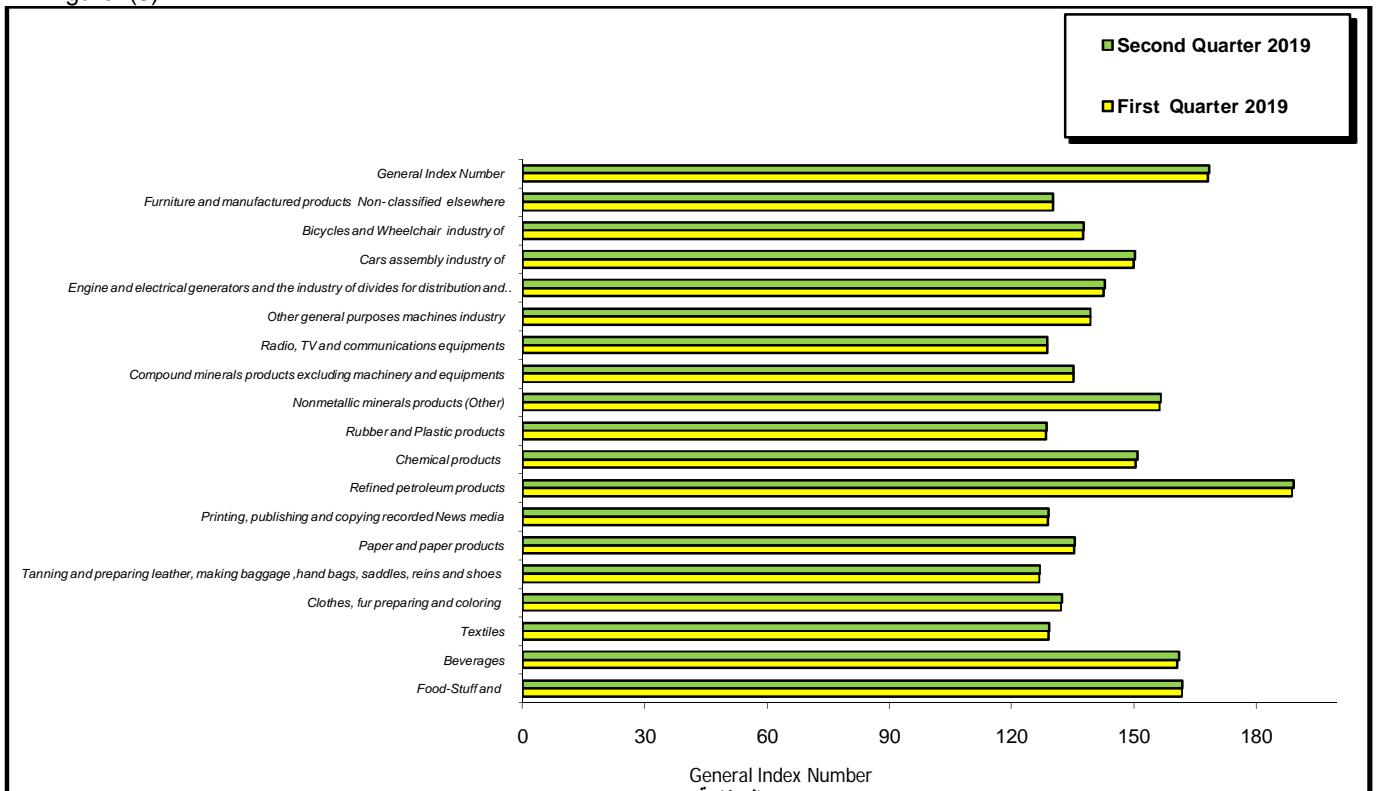
Table. (6)

code	Division	Weight	Quarterly change Rate %	Contribution to Quarterly index change Rate	Contribution to Quarterly index change Rate %
10	Food-Stuff	7.565	0.1	0.009	4.6
11	Beverages	6.393	0.3	0.019	9.6
13	Textiles	0.624	0.1	0.000	0.0
14	Clothes, fur preparing and coloring	0.209	0.2	0.000	0.0
15	Tanning and preparing leather, making baggage ,hand bags, saddles, reins and shoes	0.111	0.2	0.000	0.0
17	Paper and paper products	0.079	0.1	0.000	0.0
18	Printing, publishing and copying recorded News media	0.322	0.1	0.000	0.0
19	Refined petroleum products	42.161	0.2	0.100	50.8
20	Chemical products	6.050	0.3	0.014	7.1
22	Rubber and Plastic products	0.642	0.1	0.000	0.0
23	Nonmetallic minerals products (Other)	23.56	0.2	0.042	21.3
25	Compound minerals products excluding machinery and equipments	2.092	0.1	0.001	0.5
26	Radio, TV and communications equipments	0.070	0.0	0.000	0.0
28	Other general purposes machines industry	4.983	0.1	0.003	1.5
27	Engine and electrical generators and the industry of divides for distribution and controlling the electric	1.514	0.2	0.003	1.5
29	Cars assembly industry of	3.512	0.2	0.006	3.0
30	Bicycles and Wheelchair industry of	0.052	0.1	0.000	0.0
31	Furniture and manufactured products Non- classified elsewhere	0.061	0.0	0.000	0.0
	General Index Number	100	0.2	0.197	100

Contribution Rates to the Annual Change Rate for the General Index Number of Input Prices for the Second Quarter of 2019

Table. (7)

code	Division	Weight	Annual change Rate %	Contribution to annual index change Rate	Contribution to annual index change Rate %
10	Food-Stuff	7.565	0.8	0.059	6.9
11	Beverages	6.393	1.0	0.061	7.1
13	Textiles	0.624	0.4	0.002	0.2
14	Clothes, fur preparing and coloring	0.209	0.5	0.001	0.1
15	Tanning and preparing leather, making baggage ,hand bags, saddles, reins and shoes	0.111	0.4	0.000	0.0
17	Paper and paper products	0.079	0.2	0.000	0.0
18	Printing, publishing and copying recorded News media	0.322	0.8	0.002	0.2
19	Refined petroleum products	42.161	1.0	0.480	55.7
20	Chemical product\s	6.050	0.7	0.036	4.2
22	Rubber and Plastic products	0.642	0.1	0.000	0.0
23	Nonmetallic minerals products (Other)	23.56	0.8	0.169	19.6
25	Compound minerals products excluding machinery and equipments	2.092	0.4	0.006	0.7
26	Radio, TV and communications equipments	0.070	0.1	0.000	0.0
28	Other general purposes machines industry	4.983	0.4	0.015	1.7
27	Engine and electrical generators and the industry of divides for distribution and controlling the electric	1.514	0.8	0.011	1.3
29	Cars assembly industry of	3.512	0.6	0.019	2.2
30	Bicycles and Wheelchair industry of	0.052	0.4	0.000	0.0
31	Furniture and manufactured products Non- classified elsewhere	0.061	0.2	0.000	0.0
	General Index Number	100	0.8	0.861	100

Industrial Production Indices by Manufacturing Industries Divisions for the Second Quarter and the Quarterly and Annual Change Rates of 2019

Table. (8)   （100=2012）

code	Division	Weight	index number Second Quarter 2018	index number First Quarter 2019	index number Second Quarter 2019	Quarter change Rate %	Annual change Rate %
10	Food-Stuff	7.565	138.9	139.9	140.2	0.2	0.9
11	Beverages	6.393	292.2	293.6	294.1	0.2	0.7
13	Textiles	0.624	263.1	263.9	264.1	0.1	0.4
14	Clothes, fur preparing and coloring	0.209	244.5	245.5	245.9	0.2	0.6
15	Tanning and preparing leather, making baggage ,hand bags, saddles, reins and shoes	0.111	204.5	204.9	205.2	0.1	0.3
17	Paper and paper products	0.079	125.1	125.3	125.4	0.1	0.2
18	Printing, publishing and copying recorded News media	0.322	156.2	157.1	157.2	0.1	0.6
19	Refined petroleum products	42.161	163.9	165.1	165.6	0.3	1.0
20	Chemical products	6.050	138.3	139.1	139.4	0.2	0.8
22	Rubber and Plastic products	0.642	145.3	145.6	145.8	0.1	0.3
23	Nonmetallic minerals products (Other)	23.56	162.6	163.6	164.0	0.2	0.9
25	Compound minerals products excluding machinery and equipments	2.092	130.4	131.0	131.3	0.2	0.7
26	Radio, TV and communications equipments	0.070	53.2	53.3	53.3	0.0	0.2
28	Other general purposes machines industry	4.983	85.4	85.7	85.8	0.1	0.5
27	Engine and electrical generators and the industry of divides for distribution and controlling the electric	1.514	110.9	111.4	111.5	0.1	0.5
29	Cars assembly industry of	3.512	131.5	132.0	132.2	0.2	0.5
30	Bicycles and Wheelchair industry of	0.052	302.2	302.4	302.4	0.0	0.1
31	Furniture and manufactured products Non- classified elsewhere	0.061	125.9	126.3	126.4	0.1	0.4
	General Index Number	100	162.4	163.5	163.9	0.2	0.9

Industrial Production Indices by Manufacturing Industries Divisions for the Second and First Quarter of 2019

Figure. (5)
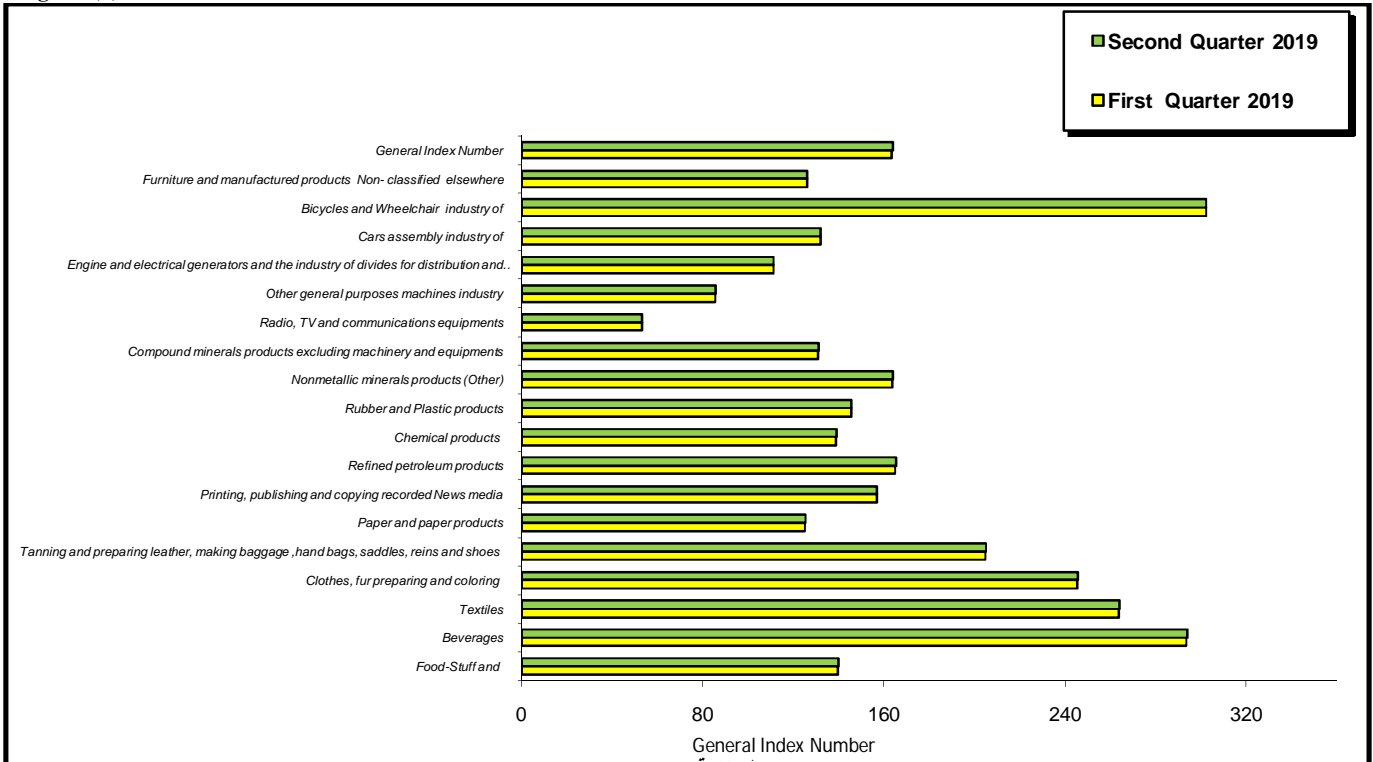
Industrial Production Indices by Manufacturing Industries Divisions for the Second Quarter of 2018and 2019

Figure . (6)

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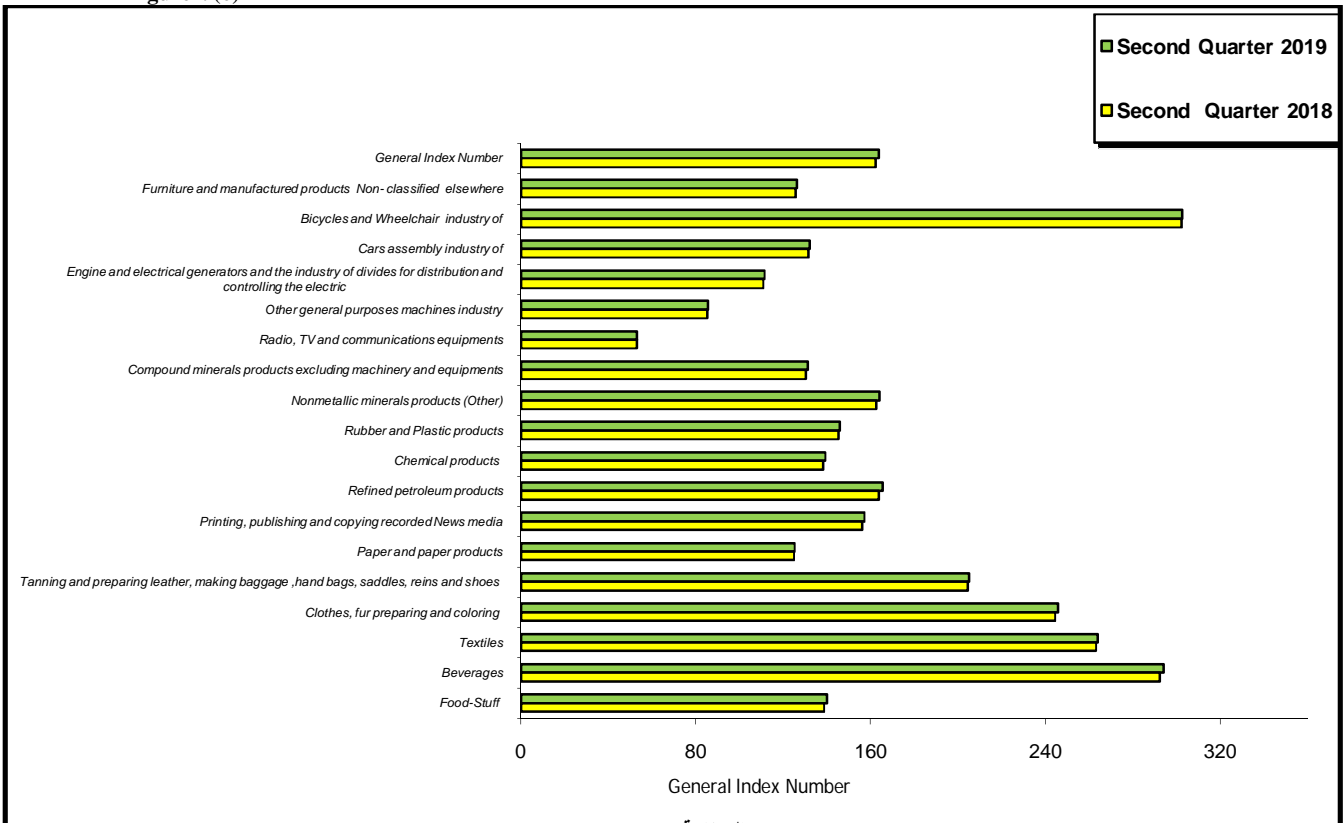
Contribution Rates to the Quarterly Change Rate of Industrial Production General Index Number for the Second Quarter of 2019

Table. (9)

code	Division	Weight	Quarterly change Rate %	Contribution to Quarterly index change Rate	Contribution to Quarterly index change Rate %
10	Food-Stuff	7.565	0.2	0.014	5.7
11	Beverages	6.393	0.2	0.020	8.1
13	Textiles	0.624	0.1	0.001	0.4
14	Clothes, fur preparing and coloring	0.209	0.2	0.001	0.4
15	Tanning and preparing leather, making baggage ,hand bags, saddles, reins and shoes	0.111	0.1	0.000	0.0
17	Paper and paper products	0.079	0.1	0.000	0.0
18	Printing, publishing and copying recorded News media	0.322	0.1	0.000	0.0
19	Refined petroleum products	42.161	0.3	0.129	52.2
20	Chemical products	6.050	0.2	0.011	4.5
22	Rubber and Plastic products	0.642	0.1	0.001	0.4
23	Nonmetallic minerals products (Other)	23.56	0.2	0.058	23.5
25	Compound minerals products excluding machinery and equipments	2.092	0.2	0.004	1.6
26	Radio, TV and communications equipments	0.070	0.0	0.000	0.0
28	Other general purposes machines industry	4.983	0.1	0.003	1.2
27	Engine and electrical generators and the industry of divides for distribution and controlling the electric	1.514	0.1	0.001	0.4
29	Cars assembly industry of	3.512	0.2	0.004	1.6
30	Bicycles and Wheelchair industry of	0.052	0.0	0.000	0.0
31	Furniture and manufactured products Non- classified elsewhere	0.061	0.1	0.000	0.0
	General Index Number	100	0.2	0.247	100

Contribution Rates to the Annual Change Rate of Industrial Production General Index Number for the Second Quarter of 2019

Table. (10)

code	Division	Weight	Annual change Rate %	Contribution to annual index change Rate	Contribution to annual index change Rate %
10	Food-Stuff	7.565	0.9	0.061	7.0
11	Beverages	6.393	0.7	0.075	8.6
13	Textiles	0.624	0.4	0.004	0.5
14	Clothes, fur preparing and coloring	0.209	0.6	0.002	0.2
15	Tanning and preparing leather, making baggage ,hand bags, saddles, reins and shoes	0.111	0.3	0.000	0.0
17	Paper and paper products	0.079	0.2	0.000	0.0
18	Printing, publishing and copying recorded News media	0.322	0.6	0.002	0.2
19	Refined petroleum products	42.161	1.0	0.441	50.3
20	Chemical products	6.050	0.8	0.041	4.7
22	Rubber and Plastic products	0.642	0.3	0.002	0.2
23	Nonmetallic minerals products (Other)	23.56	0.9	0.203	23.2
25	Compound minerals products excluding machinery and equipments	2.092	0.7	0.012	1.4
26	Radio, TV and communications equipments	0.070	0.2	0.000	0.0
28	Other general purposes machines industry	4.983	0.5	0.012	1.4
27	Engine and electrical generators and the industry of divides for distribution and controlling the electric	1.514	0.5	0.006	0.7
29	Cars assembly industry of	3.512	0.5	0.015	1.7
30	Bicycles and Wheelchair industry of	0.052	0.1	0.000	0.0
31	Furniture and manufactured products Non- classified elsewhere	0.061	0.4	0.000	0.0
	General Index Number	100	0.9	0.876	100

Output Price Indices by Manufacturing Industries Divisions for the Years (2016–2019)

Table. (11)   (100=2012)

Code	Division	Weight	Year		Quarter				
			2016	2017	Second 2018	Third 2018	Fourth 2018	First 2019	Second 2019
10	Food-Stuff	7.565	180.0	181.5	182.9	183.2	183.5	183.9	184.4
11	Beverages	6.393	179.8	180.8	182.2	182.4	182.9	183.1	183.5
13	Textiles	0.624	138.2	139.2	140.1	140.3	140.5	140.7	141.0
14	Clothes, fur preparing and coloring	0.209	133.9	134.4	134.9	135.2	135.4	135.4	135.5
15	Tanning and preparing leather, making baggage ,hand bags, saddles, reins and shoes	0.111	129.6	130.3	130.6	130.6	130.8	131.1	131.3
17	Paper and paper products	0.079	137.7	138.5	139.3	139.7	139.9	140.1	140.2
18	Printing, publishing and copying recorded News media	0.322	132.1	133.1	133.9	134.2	134.5	134.8	135.1
19	Refined petroleum products	42.161	179.2	181.0	182.5	183.0	183.6	184.1	184.6
20	Chemical products	6.050	148.0	149.3	150.5	150.7	151.0	151.3	151.6
22	Rubber and Plastic products	0.642	154.8	155.6	156.2	156.4	156.4	156.5	156.7
23	Nonmetallic minerals products (Other)	23.56	158.6	159.9	161.2	161.5	161.8	162.0	162.1
25	Compound minerals products excluding machinery and equipments	2.092	142.9	143.8	144.3	144.6	144.8	145.1	145.2
26	Radio, TV and communications equipments	0.070	136.9	137.5	138.2	138.4	138.6	138.6	138.6
28	Other general purposes machines industry	4.983	145.4	145.9	146.3	146.4	146.7	146.9	147.0
27	Engine and electrical generators and the industry of divides for distribution and controlling the electric	1.514	128.0	128.9	129.5	129.7	129.8	130.1	130.3
29	Cars assembly industry of	3.512	122.6	123.2	123.6	123.7	123.9	124.0	124.1
30	Bicycles and Wheelchair industry of	0.052	147.5	148.2	148.9	148.9	148.9	149.2	149.2
31	Furniture and manufactured products Non- classified elsewhere	0.061	138.9	140.0	141.0	141.3	141.5	141.5	141.6
	General Index Number	100	166.6	167.9	169.2	169.6	170.0	170.4	170.7

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Input Price Indices by Manufacturing Industries Divisions for the Years (2016–2019)

Table. (12) (100=2012)

Code	Division	Weight	Year		Quarter				
			2016	**2017**	**Second 2018**	**Third 2018**	**Fourth 2018**	**First 2019**	**Second 2019**
10	Food-Stuff	7.565	158.3	159.6	160.7	161.2	161.5	161.8	162.0
11	Beverages	6.393	157.9	158.8	159.5	159.8	160.3	160.6	161.1
13	Textiles	0.624	126.9	127.8	128.7	128.8	129.0	129.1	129.2
14	Clothes, fur preparing and coloring	0.209	130.7	131.6	131.9	132.1	132.2	132.2	132.5
15	Tanning and preparing leather, making baggage ,hand bags, saddles, reins and shoes	0.111	125.6	126.1	126.5	126.6	126.7	126.8	127.0
17	Paper and paper products	0.079	133.6	134.4	135.2	135.4	135.4	135.4	135.5
18	Printing, publishing and copying recorded News media	0.322	126.1	127.2	128.0	128.3	128.6	128.9	129.0
19	Refined petroleum products	42.161	184.6	186.2	187.3	187.9	188.2	188.8	189.2
20	Chemical products	6.050	147.8	148.7	149.9	150.1	150.2	150.5	150.9
22	Rubber and Plastic products	0.642	127.4	128.2	128.5	128.5	128.5	128.5	128.6
23	Nonmetallic minerals products (Other)	23.56	152.7	154.3	155.5	155.8	156.1	156.4	156.7
25	Compound minerals products excluding machinery and equipments	2.092	133.3	134.1	134.8	134.9	135.1	135.2	135.3
26	Radio, TV and communications equipments	0.070	127.2	128.0	128.6	128.6	128.6	128.7	128.7
28	Other general purposes machines industry	4.983	137.4	138.2	138.9	139.0	139.2	139.3	139.4
27	Engine and electrical generators and the industry of divides for distribution and controlling the electric	1.514	140.0	140.8	141.7	142.0	142.3	142.6	142.9
29	Cars assembly industry of	3.512	148.0	148.9	149.4	149.6	149.8	150.0	150.3
30	Bicycles and Wheelchair industry of	0.052	135.7	136.7	137.1	137.1	137.3	137.6	137.7
31	Furniture and manufactured products Non- classified elsewhere	0.061	128.2	129.2	130.0	130.1	130.1	130.2	130.2
	General Index Number	100	164.5	166.0	167.0	167.4	167.7	168.1	168.4

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Quarterly Industrial Production Indices by Manufacturing Industries Divisions for the Years (2016-2019)

Table. (13) (100=2012)

Code	Division	Weight	Year		Quarter				
			2016	2017	Second 2018	Third 2018	Fourth 2018	First 2019	Second 2019
10	Food-Stuff	7.565	136.5	137.9	138.9	139.1	139.5	139.9	140.2
11	Beverages	6.393	289.7	291.0	292.2	292.7	293.2	293.6	294.1
13	Textiles	0.624	260.8	262.0	263.1	263.3	263.5	263.9	264.1
14	Clothes, fur preparing and coloring	0.209	241.9	243.2	244.5	245.0	245.5	245.5	245.9
15	Tanning and preparing leather, making baggage ,hand bags, saddles, reins and shoes	0.111	203.0	204.0	204.5	204.5	204.7	204.9	205.2
17	Paper and paper products	0.079	122.7	123.9	125.1	125.3	125.3	125.3	125.4
18	Printing, publishing and copying recorded News media	0.322	154.6	155.6	156.2	156.5	156.8	157.1	157.2
19	Refined petroleum products	42.161	160.9	162.6	163.9	164.4	164.7	165.1	165.6
20	Chemical products	6.050	136.0	137.2	138.3	138.6	138.8	139.1	139.4
22	Rubber and Plastic products	0.642	143.8	144.5	145.3	145.4	145.5	145.6	145.8
23	Nonmetallic minerals products (Other)	23.56	159.8	161.2	162.6	163.1	163.4	163.6	164.0
25	Compound minerals products excluding machinery and equipments	2.092	129.2	130.0	130.4	130.5	130.8	131.0	131.3
26	Radio, TV and communications equipments	0.070	52.7	53.2	53.2	53.3	53.3	53.3	53.3
28	Other general purposes machines industry	4.983	84.6	85.1	85.4	85.5	85.6	85.7	85.8
27	Engine and electrical generators and the industry of divides for distribution and controlling the electric	1.514	109.6	110.3	110.9	111.0	111.2	111.4	111.5
29	Cars assembly industry of	3.512	130.6	131.2	131.5	131.8	132.0	132.0	132.2
30	Bicycles and Wheelchair industry of	0.052	300.2	300.9	302.2	302.2	302.2	302.4	302.4
31	Furniture and manufactured products Non- classified elsewhere	0.061	123.8	124.9	125.9	126.2	126.3	126.3	126.4
	General Index Number	100	159.8	161.3	162.4	162.8	163.1	163.5	163.9

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Output Price Indices for the Years (1999-2018)

Table. (14)

Annual change Rate %	General Index Number 100=2012	General Index Number 100 = 2007	General Index Number 100 =1988	Year
-	17.4	27.2	72996.0	1999
10.3	19.2	30.1	80601.0	2000
1.5	19.5	30.5	81688.0	2001
6.2	20.7	32.4	86910.0	2002
15.0	23.8	37.3	99979.0	2003
75.6	41.8	65.5	175581.5	2004
23.4	51.6	80.8	216746.3	2005
14.1	58.9	92.3	247472.2	2006
8.5	63.9	100.0	268202.0	2007
14.9	73.4	115.0	282493.4	2008
22.5	89.9	140.8	377628.4	2009
5.0	94.4	147.9	396670.8	2010
3.4	97.6	152.8	409812.7	2011
2.5	100	156.6	420002.3	2012
2.4	102.4	160.3	429927.8	2013
58.8	162.6	168.4	682923.7	2014
1.5	165.0	258.4	693003.8	2015
1.0	166.6	260.9	699723.8	2016
0.8	167.9	262.9	705183.9	2017
0.9	169.4	265.3	711483.9	2018

Price indices for 1999 - 2015 by base year 2007 and Price indices for 1999 - 2018 by base year 1988 obtained by linking the time series.
Price indices for 1999 - 2014 by base year 2012   obtained by linking the time series
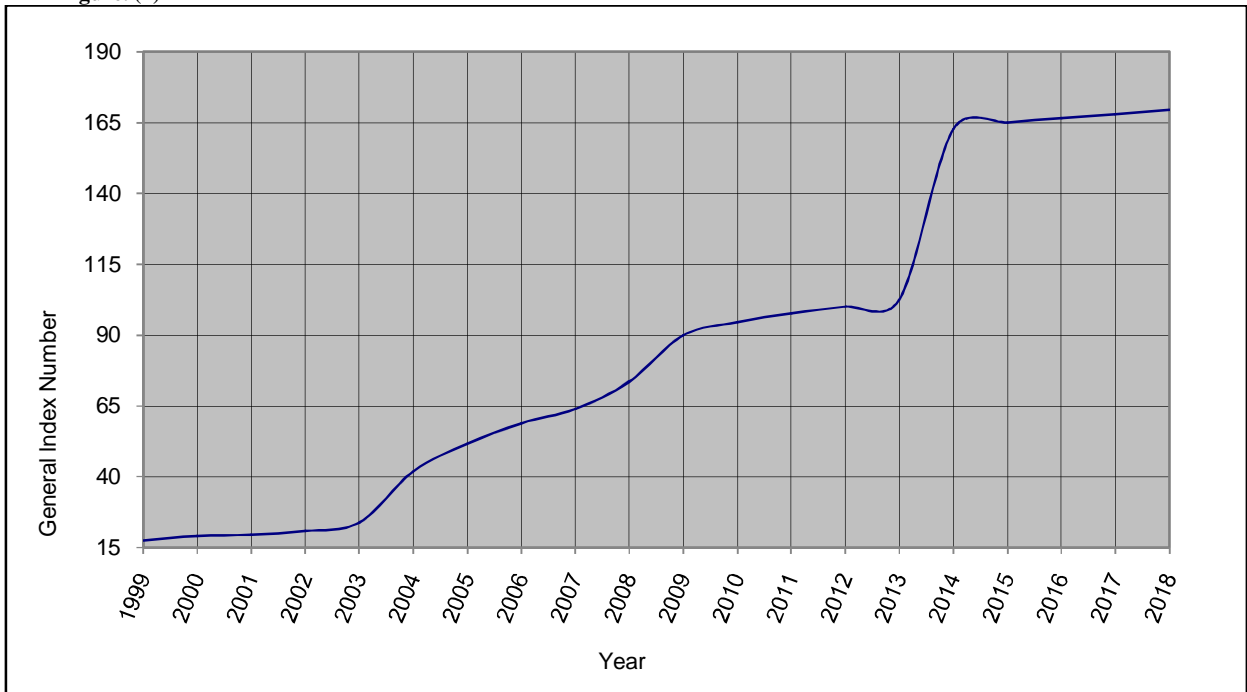
Input Price Indices for the years (1999-2018)

Table. (15)

Annual change Rate %	General Index Number 100=2012	General Index Number 100 = 2007	General Index Number 100 =1988	Year
-	27.4	42.1	108831.0	1999
13.5	31.1	47.9	123734.0	2000
22.5	38.1	58.6	151627.0	2001
3.4	39.4	60.6	156671.0	2002
8.1	42.6	65.6	169696.0	2003
-7.0	39.6	60.9	157437.8	2004
24.2	49.2	75.7	195825.1	2005
26.2	62.1	95.6	247289.1	2006
4.7	65	100.0	258565.7	2007
27.2	82.7	127.3	273342.9	2008
9.3	90.4	139.2	359923.5	2009
5.0	94.9	146.1	377764.5	2010
2.8	97.6	150.2	388365.7	2011
2.5	100	153.9	397932.6	2012
2.3	102.3	157.4	406982.4	2013
57.1	160.7	160.8	639477.7	2014
1.4	162.9	250.7	648232.2	2015
1.0	164.5	253.2	654599.1	2016
0.9	166.0	255.5	660568.1	2017
0.7	167.2	257.3	665343.3	2018

Price indices for 1999 - 2016 by base year 2007 and Price indices for 1999 - 2018 by base year 1988 obtained by linking the time series.
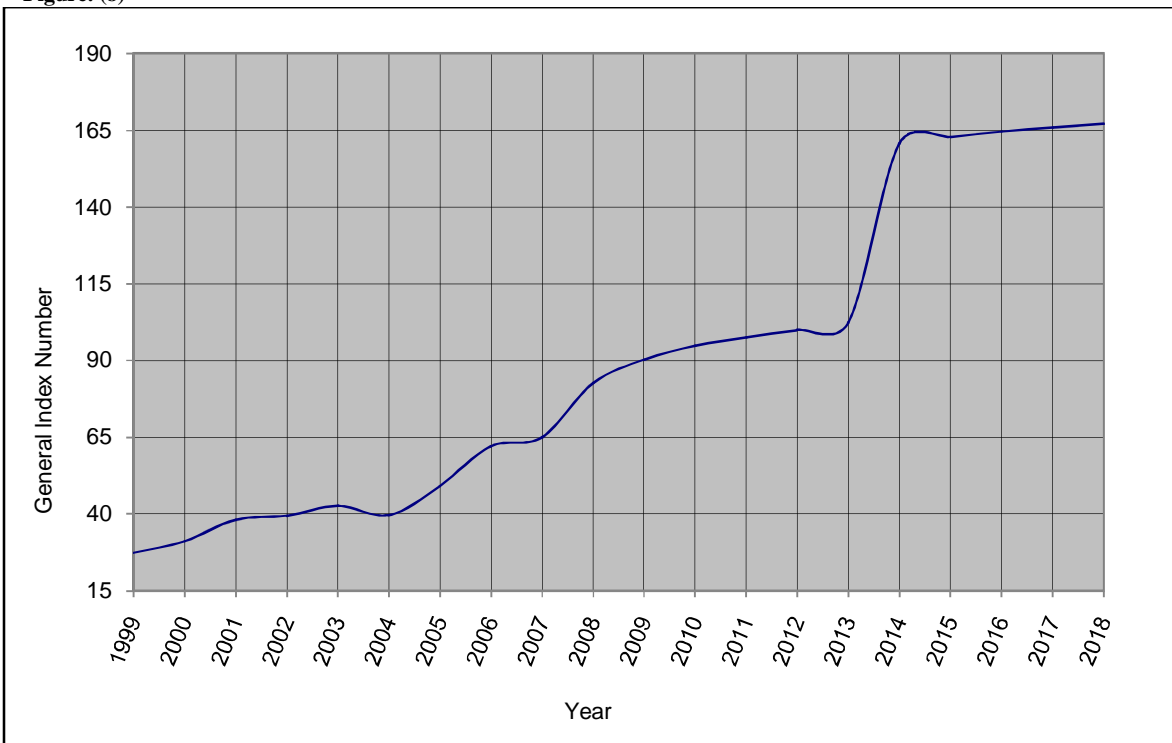Price indices for 1999 - 2014 by base year 2012 obtained by linking the time series.

Output Price Indices for the Years (1999-2018)

Figure. (7)

Input Price Indices for the Years (1999-2018)

Figure. (8)

Industrial Production Indices for the Years 1980-2018

Table. (16)

Annual change Rate %	General Index Number 100 = 2012	General Index Number 100 = 2007	General Index Number 100 =1988	Year
-	136.4	219.8	93.4	1980
-8.3	125.1	201.6	85.7	1981
1.9	127.4	205.4	87.3	1982
-6.3	119.4	192.5	81.8	1983
4.4	124.6	200.9	85.4	1984
10.0	137	220.9	93.9	1985
-5.4	129.6	208.9	88.8	1986
-1.6	127.5	205.6	87.4	1987
14.4	146	235.3	100.0	1988
3.4	150.9	243.3	103.4	1989
-15.2	128	206.4	87.7	1990
-34.2	84.2	135.8	57.7	1991
-10.8	75.2	121.2	51.5	1992
-7.0	69.9	112.7	47.9	1993
2.1	71.4	115.1	48.9	1994
16.3	83.1	133.9	56.9	1995
4.4	86.7	139.8	59.4	1996
8.9	94.4	152.2	64.7	1997
1.4	95.8	154.4	65.6	1998
5.6	101.2	163.1	69.3	1999
-4.5	96.7	155.8	66.2	2000
9.2	105.5	170.1	72.3	2001
-8.8	96.2	155.1	65.9	2002
-28.6	68.7	110.8	47.1	2003
-22.3	53.4	86.1	36.6	2004
-1.0	52.9	85.2	36.2	2005
10.4	58.4	94.1	40.0	2006
6.3	62	100.0	42.5	2007
6.7	66.2	106.7	44.2	2008
36.0	90	145.1	61.7	2009
6.3	95.7	154.3	65.6	2010
2.3	98	157.9	67.1	2011
2.1	100	161.2	68.5	2012
2.4	102.4	165.0	70.1	2013
53.0	156.7	168.4	107.3	2014
10.0	158.2	170.0	108.4	2015
1.0	159.8	257.6	109.5	2016
0.9	161.3	259.9	110.5	2017
0.8	162.6	262.2	111.4	2018

Price indices for 1980 – 1987, 1989, 2009- 2018 by base year 1988 obtained by linking the time series.
Price indices for 1980 - 2006 by base year 2007 obtained by linking the time series
Price indices for 1980 – 2011-2013 by base year 2012 obtained by linking the time series

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Figure (9)

Industrial Production Indices for the Years 1980-2018