



مرکز الإحصاء
STATISTICS CENTRE

Producer Price Index (PPI)

Manufacturing (2012=100)

2015

Fourth Quarter

Preliminary

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Introduction

In the light of the rapid economic and social development in the Emirate of Abu Dhabi, price indices and indicators are considered key tools that express changes in the prices of industrial and commercial production and services. Indices are also considered important economic indicators that provide accurate data to decision makers, economists, researchers, policy makers and other users of official statistics.

The remarkable economic development witnessed by Abu Dhabi Emirate has called for the construction of a statistical index that reflects the growth of the economic production sectors. Therefore, Statistics Centre – Abu Dhabi constructed the industrial producer price index for the Emirate of Abu Dhabi.

The Producer Price Index (PPI), which is calculated on a quarterly basis, cover the manufacturing sector. The PPI design is based on the main list of products of the industrial manufacturing activities in the International Standard Industrial Classification-revision 4 (ISIC4) which covers all manufacturing economic activities.

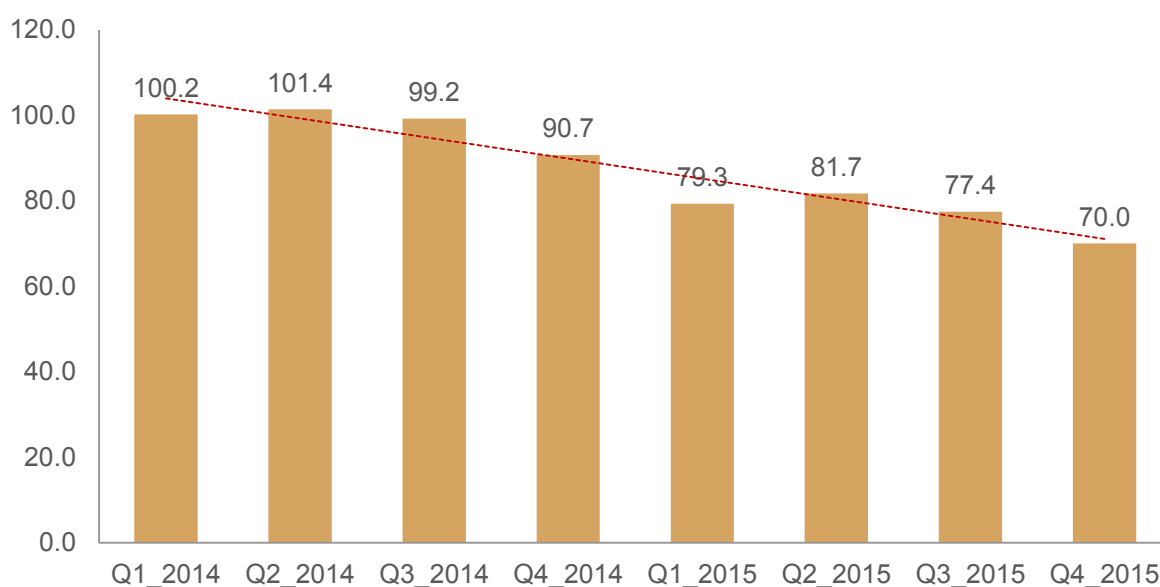
The calculated figures build a time series that measures the changes in the production prices during a specific period compared with the base year (2012). SCAD follows the best international practices and methodologies for the calculation of the PPI and the processing of data. Further development of the PPI will cover more activities such as mining and quarrying, and water and electricity.

Key Points

This publication presents the Producer Price Index results for the manufacturing industry in the fourth quarter of 2015 (base year 2012) .The key findings are as follows:

- The PPI in the fourth quarter of 2015 decreased by 22.9% compared with the same quarter in 2014, falling to 70.0% in the fourth quarter of 2015 from 90.7% in the fourth quarter of 2014.
- In the fourth quarter of 2015, the PPI decreased by 9.6% compared with the third quarter of 2015, falling to 70.0% compared with 77.4% in the third quarter of 2015.
- In 2015, the PPI decreased by 21.2% compared with 2014, falling to 77.1% compared with 97.9% in 2014.

Figure 1: Quarterly Producer Price Index for 2014, 2015 (2012=100)



Source: Statistics Centre-Abu Dhabi

Producer Price Index for the fourth quarter of 2015 compared with the fourth quarter of 2014

The Producer Price Index decreased in the fourth quarter of 2015 by 22.9% compared with the same quarter in 2014. The drop resulted from changes (increases and decreases) in the indices of the economic activities. The key economic activity contributing to this drop was 'Manufacture of coke and refined petroleum products', which decreased by 50.9% while contributing 70.6% of the total drop in producer prices. The price of LPG fell by 51.8% from the same quarter in 2014 while (Unleaded Gasoline 95 and Unleaded Gasoline 98) decreased by 39.1% and 34.2% respectively.

In addition, the producer price index of the 'Manufacture of chemicals and chemical products' activity decreased by 39.7%, contributing 29.3%. The decline came from lower prices for gas and polyethylene products. The 'Manufacture of electrical equipment' activity decreased by 26.8%, contributing 4.9%. The prices of the 'Manufacture of basic metals' activity decreased by 14.8%, the decline came from lower prices of steel and Aluminium, contributing 4.1% of the overall decrease. The 'Manufacture of paper and paper products' activity decreased by 11.1%, contributing 0.2% of the total drop.

The key activity that recorded an increase in its price, during the fourth quarter of 2015 compared with the corresponding quarter in 2014 was the 'Manufacture of other transport equipment' for which prices increased by 38.4%, contributing 8.6% to the overall change. As a result of rising prices of the production material (Steel fabrication) during this quarter, the prices of the 'Manufacture of wearing apparel' increased by 8.4%. In addition, the prices of the 'Manufacture of machinery and equipment n.e.c.' and 'Manufacture of other non-metallic mineral products' activities increased by 3.3% and 1.1% respectively, contributing a small percentage to the overall change.

Table 1: Relative change in the Producer Price Index in Q4 2015 compared with Q4 2014 (2012=100)

Economic Activity	Weights	PPI_Q4 2014	PPI_Q4 2015	Relative change Q4 2015 / Q4 2014
Manufacturing Industry	10,000.0	90.7	70.0	-22.9
Manufacture of food products	287.4	96.5	94.8	-1.7
Manufacture of beverages	84.9	100.0	100.0	0.0
Manufacture of textiles	33.9	103.5	98.1	-5.3
Manufacture of wearing apparel	118.4	100.3	108.7	8.4
Manufacture of leather and related products	5.3	112.1	109.6	-2.2
Manufacture of wood and of products of wood and cork	65.8	101.4	101.4	0.0
Manufacture of paper and paper products	37.7	99.9	88.8	-11.1
Printing and reproduction of recorded media	33.1	109.0	109.9	0.8
Manufacture of coke and refined petroleum products	3,653.8	78.7	38.6	-50.9
Manufacture of chemicals and chemical products	1,690.4	90.6	54.7	-39.7
Manufacture of pharmaceuticals, medicinal chemical products	23.0	90.9	90.9	0.0
Manufacture of rubber and plastics products	126.3	91.2	89.5	-1.9
Manufacture of other non-metallic mineral products	1,104.4	96.9	97.9	1.1
Manufacture of basic metals	626.5	92.3	78.6	-14.8
Manufacture of fabricated metal products, except machinery and equipment	960.1	82.1	81.9	-0.3
Manufacture of computer, electronic and optical products	11.7	95.8	95.8	0.0
Manufacture of electrical equipment	410.9	93.1	68.1	-26.8
Manufacture of machinery and equipment n.e.c	59.0	103.6	107.1	3.3
Manufacture of motor vehicles, trailers and semi-trailers	12.1	113.1	113.7	0.5
Manufacture of other transport equipment	164.5	281.0	388.8	38.4
Manufacture of furniture	75.0	118.6	119.4	0.7
Other manufacturing	7.5	92.1	90.4	-1.8
Repair and installation of machinery and equipment	408.0	99.5	99.6	0.1

Source: Statistics Centre-Abu Dhabi

Table 2: Contribution to change in the Producer Price Index by activity, Q4 2015 compared with Q4 2014

Isic4	Activity Name	Contribution %
	Manufacturing	100
10	Manufacture of food products	-0.2
11	Manufacture of beverages	0.0
13	Manufacture of textiles	-0.1
14	Manufacture of wearing apparel	0.5
15	Manufacture of leather and related products	-0.01
16	Manufacture of wood and of products of wood and cork	0.00
17	Manufacture of paper and paper products	-0.2
18	Printing and reproduction of recorded media	0.0
19	Manufacture of coke and refined petroleum products	-70.6
20	Manufacture of chemicals and chemical products	-29.3
21	Manufacture of pharmaceuticals, medicinal chemical products	0.0
22	Manufacture of rubber and plastics products	-0.1
23	Manufacture of other non-metallic mineral products	0.6
24	Manufacture of basic metals	-4.1
25	Manufacture of fabricated metal products, except machinery and equipment	-0.1
26	Manufacture of computer, electronic and optical products	0.0
27	Manufacture of electrical equipment	-4.9
28	Manufacture of machinery and equipment n.e.c	0.1
29	Manufacture of motor vehicles, trailers and semi-trailers	0.0
30	Manufacture of other transport equipment	8.6
31	Manufacture of furniture	0.0
32	Other manufacturing	0.0
33	Repair and installation of machinery and equipment	0.0

Source: Statistics Centre-Abu Dhabi

Producer Price Index for the fourth quarter of 2015 compared with the third quarter of 2015

The industrial Producers Price Index decreased by 9.6% in the fourth quarter of 2015 compared with the third quarter of 2015, mainly due to a 24.0% decrease in the producer price index of the 'Manufacture of other transport equipment'. The prices of the 'Manufacture of coke and refined petroleum products' activity decreased by 19.2%. This decrease resulted from refinery products including Sulfur which fell by 63.7%, then Gas oil / diesel by 32.4%, and (Unleaded Gasoline 95 and Unleaded Gasoline 98) decreased by 14.0% and 10.0% respectively.

The prices of the 'Manufacture of fabricated metal products, except machinery and equipment' activity decreased by 14.6%. At the same time, the prices of the 'Manufacture of textiles' activity decreased by 6.1%, while 'Manufacture of electrical equipment', 'Manufacture of chemicals and chemical products' and 'Manufacture of paper and paper products' decreased by 4.8%, 4.3% and 2.2% respectively.

The price index of the 'Manufacture of leather and related products' activity increased by 3.9%, the 'Manufacture of wearing apparel' activity increased by 2.9%. In addition, the 'Manufacture of furniture' activities increased by 2.5% .

The table 3 shows the producer price indices for the third and fourth quarters of 2015. The table also shows the relative importance (weights) and the relative change in the price index in the fourth quarter of 2015 compared with the third quarter of 2015 by economic activity.

Table 3: Relative change in the PPI in Q4 of 2015 compared with Q3 of 2015(2012=100)

Economic Activity	Weights	PPI_Q3 2015	PPI_Q4 2015	Relative change Q4 2015 / Q3 2015
Manufacturing Industry	10,000.0	77.4	70.0	-9.6
Manufacture of food products	287.4	95.2	94.8	-0.4
Manufacture of beverages	84.9	100.0	100.0	0.0
Manufacture of textiles	33.9	104.5	98.1	-6.1
Manufacture of wearing apparel	118.4	105.7	108.7	2.9
Manufacture of leather and related products	5.3	105.5	109.6	3.9
Manufacture of wood and of products of wood and cork	65.8	100.7	101.4	0.8
Manufacture of paper and paper products	37.7	90.8	88.8	-2.2
Printing and reproduction of recorded media	33.1	109.9	109.9	0.0
Manufacture of coke and refined petroleum products	3,653.8	47.8	38.6	-19.2
Manufacture of chemicals and chemical products	1,690.4	57.1	54.7	-4.3
Manufacture of pharmaceuticals, medicinal chemical products	23.0	90.9	90.9	0.0
Manufacture of rubber and plastics products	126.3	90.7	89.5	-1.3
Manufacture of other non-metallic mineral products	1,104.4	98.8	97.9	-0.9
Manufacture of basic metals	626.5	79.7	78.6	-1.4
Manufacture of fabricated metal products, except machinery and equipment	960.1	95.9	81.9	-14.6
Manufacture of computer, electronic and optical products	11.7	95.8	95.8	0.0
Manufacture of electrical equipment	410.9	71.6	68.1	-4.8
Manufacture of machinery and equipment n.e.c	59.0	105.6	107.1	1.4
Manufacture of motor vehicles, trailers and semi-trailers	12.1	113.5	113.7	0.1
Manufacture of other transport equipment	164.5	511.6	388.8	-24.0
Manufacture of furniture	75.0	116.5	119.4	2.5
Other manufacturing	7.5	90.6	90.4	-0.3
Repair and installation of machinery and equipment	408.0	99.5	99.6	0.1

Source: Statistics Centre-Abu Dhabi

Producer Price Index for 2015 compared with 2014

The Producer Price Index decreased in 2015 by 21.2% compared with the 2014. The key economic activity contributing to this drop was 'Manufacture of coke and refined petroleum products', which decreased by 45.6% while contributing 73.3% of the total drop in producer price index. In addition, the producer price index of the 'Manufacture of chemicals and chemical products' activity decreased by 35.5%, contributing 27.9%. The 'Manufacture of fabricated metal products, except machinery and equipment' activity decreased by 19.8%, contributing 10.1%. The prices of the 'Manufacture of electrical equipment' and 'Manufacture of basic metals' activity decreased by 17.7%, 10.6% respectively. The 'Manufacture of paper and paper products' and 'Manufacture of textiles' activities decreased by 8.1%, 3.6% respectively.

The key activity that recorded an increase in its price, during the 2015 compared with 2014 was the 'Manufacture of other transport equipment' for which prices increased by 109.8%, contributing 17.5% to the overall change. The 'Manufacture of furniture' activity increased by 3.9% .In addition, the prices of the 'Manufacture of wearing apparel' and 'Manufacture of machinery and equipment n.e.c.' activities increased by 3.8% and 3.5% respectively.

Table 4: Relative change in the PPI for 2015 compared with 2014 (2012 = 100)

Economic Activity	Weights	PPI_2014	PPI_2015	Relative change 2015 / 2014
Manufacturing Industry	10,000.0	97.9	77.1	-21.2
Manufacture of food products	287.4	98.7	96.2	-2.6
Manufacture of beverages	84.9	100.0	100.0	0.0
Manufacture of textiles	33.9	104.0	100.3	-3.6
Manufacture of wearing apparel	118.4	103.5	107.4	3.8
Manufacture of leather and related products	5.3	106.5	107.6	1.0
Manufacture of wood and of products of wood and cork	65.8	101.8	100.9	-0.9
Manufacture of paper and paper products	37.7	101.2	93.0	-8.1
Printing and reproduction of recorded media	33.1	107.9	109.9	1.8
Manufacture of coke and refined petroleum products	3,653.8	91.4	49.7	-45.6
Manufacture of chemicals and chemical products	1,690.4	96.6	62.3	-35.5
Manufacture of pharmaceuticals, medicinal chemical products	23.0	90.9	90.9	0.0
Manufacture of rubber and plastics products	126.3	92.0	91.5	-0.5
Manufacture of other non-metallic mineral products	1,104.4	97.2	97.5	0.3
Manufacture of basic metals	626.5	92.6	82.7	-10.6
Manufacture of fabricated metal products, except machinery and equipment	960.1	110.3	88.5	-19.8
Manufacture of computer, electronic and optical products	11.7	96.4	95.8	-0.6
Manufacture of electrical equipment	410.9	92.3	76.0	-17.7
Manufacture of machinery and equipment n.e.c	59.0	101.9	105.4	3.5
Manufacture of motor vehicles, trailers and semi-trailers	12.1	113.3	113.5	0.2
Manufacture of other transport equipment	164.5	200.9	421.5	109.8
Manufacture of furniture	75.0	112.9	117.3	3.9
Other manufacturing	7.5	92.3	90.5	-1.9
Repair and installation of machinery and equipment	408.0	99.6	99.6	0.0

Source: Statistics Centre-Abu Dhabi

Producer Price Index Methodology

Definition

The Producer Price Index (PPI) is an economic and statistical indicator that measures the change in the prices of industrial production (manufacturing industries) in two periods, the base period and the comparison period.

PPI importance

- The PPI reflects the trends of the industrial producers' prices in the Emirate of Abu Dhabi, which help decision makers, planners and researchers to make sound decisions that support the industry sector.
- The PPI measures the change in the prices of industrial production and is used by the government to process and create economic plans and strategies.
- The PPI is used as a main deflator for economic indicators over time. It is used to deflate time series of economic data, based on price changes that reflect inflation, to their real values in fixed prices within the national accounts estimates.
- The PPI is used as a tool that monitors abrupt rises in sale and purchase contracts, especially futures contracts in which a future date for payment is set. It is often recommended to list the items whose prices have increased for further study, and to identify their impact on input prices.
- The PPI is used by international economic organizations such as the International Monetary Fund as a tool for comparison and evaluation.

PPI representation and coverage level

The Producers Price Index (PPI) covers all manufacturing activities in the Emirate of Abu Dhabi; representing all twenty three manufacturing activities based on the International Standard Industrial Classification, revision 4 (ISIC4/2-digit). At the current time, SCAD is developing the PPI to include the 'Mining and quarrying' and 'Water and electricity' activities.

Data Collection

Prices are collected on a monthly basis from the sampled establishments through field visits or e-mail; these 65 establishments are carefully selected to represent the manufacturing industry. SCAD field enumerators, who have been appropriately prepared and trained for this purpose, explain the items of the questionnaire and the required data to ensure the collection of accurate data. Field enumerators are also provided with questionnaires that are specially designed for this purpose.

Data source

The quantities of 284 products are collected from 65 establishments at the 2-digit level. The sample distribution covers 52 establishments in the Abu Dhabi region and 13 establishments in the Al Ain region.

PPI periodicity

The PPI is designed on a quarterly basis; while prices are collected on a monthly basis. The PPI sample is fixed and all establishments included in the sample are visited by enumerators to collect the prices of the establishment's key products.

Auditing

The auditing phase aims to validate all data to ensure consistency. It also includes comparing the prices against the quantities and the prices of the month with the previous month to avoid input errors, collection errors and incorrect specification of products.

PPI calculation

The PPI is calculated using the 'Laspeyres Equation':

$$PPI_L = \sum \frac{q_{1i}}{q_{0i}} \times W_{0i}$$

The quarterly average price of the product is calculated using the arithmetic mean of the product price during the three months. Then, the price level is calculated for the product in each establishment. Then, the higher levels are aggregated using the product weights within the same economic activity.

Base year

The year 2012 was adopted as a base year for the industrial producers price index, while 2009 was adopted as a base year for the weights used in the PPI, when the latest economic data was provided from field surveys. Accordingly, the base year for the PPI weights is 2009 and 2012 for the PPI prices.

Weights and relative importance

The weights used in the PPI calculation depend on the available data of the economic establishment census, which was conducted in 2010. The census has provided a frame for the economic establishments in Abu Dhabi Emirate. This frame was used to design and select the 2009 Economic Survey's sample. The PPI sample was drawn as a partial sample of the 2009 Economic Surveys sample to represent the index for the industrial producers' prices. The data provided on production and revenues in the partial sample was used to calculate weights at the two-digit economic activity level. Weights were also calculated at establishment level. Weights at item level were calculated through the proportional distribution of the establishment's weight by its key products.

Relative importance of manufacturing activities in 2012

Activity name	Weight
Manufacturing industry	10,000.0
Manufacture of food products	287.4
Manufacture of beverages	84.9
Manufacture of textiles	33.9
Manufacture of wearing apparel	118.4
Manufacture of leather and related products	5.3
Manufacture of wood, wood products and cork, except furniture, and manufacture of straw items and plaiting material	65.8
Manufacture of paper and paper products	37.7
Printing and reproduction of recorded media	33.1
Manufacture of coke and refined petroleum products	3653.8
Manufacture of chemicals and chemical products	1690.4
Manufacture of pharmaceuticals, medicinal chemicals and botanical products	23.0
Manufacture of rubber tyres and pipes, and renewal and restructure of outer surfaces of rubber tyres	126.3
Manufacture of other non-metallic mineral products	1104.4
Manufacture of basic metals	626.5
Manufacture of fabricated metal products, except machinery and equipment	960.1
Manufacture of computer, electronic and optical products	11.7
Manufacture of electrical equipment	410.9
Manufacture of machinery and equipment n.e.c.	59.0
Manufacture of motor vehicles, trailers and semi- trailers	12.1
Manufacture of other transport equipment	164.5
Manufacture of furniture	75.0
Other manufacturing industries	7.5
Repair and installation of machinery and equipment	408.0

Source: Statistics Centre-Abu Dhabi

Producer's prices

Compiling the PPI depends on monthly price data for the main products of establishments, using producer prices (at factory gate price) without any production tax. The prices cover local production and exports.

Publishing

SCAD publishes the PPI quarterly report by the third month after each reference quarter and it is made accessible to everyone on the SCAD website.

Next release

The PPI for the first quarter of 2015 will be released in Jun 2016. For more information about price indices and other official statistics, please visit the website of the Statistics Centre Abu Dhabi: www.scad.ae.

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