

# PRODUCER PRICE INDEX

**TIRANA, September 2011**

## USERS

**Producer price index measures the change in the prices of products at the first point of sale after production.**

Producer Price Index is compatible with Eurostat methodology and covers following economic activities:

- Extracting industry, C: 10-14
- Manufacturing industry, D:15-36
- Electric power, water, and gas, E:40-41

This index doesn't include Forestry and Fisheries activity. According to Eurostat's methodology the producer price index for these two economic activities is calculated separately and is named Producer Price for Agriculture.

INSTAT calculates two indexes: Producer Price Index for domestic suppliers and Export Price Index. Calculation and publication of new Producer Price Index in Albania include:

- Producer Price Index
- Producer Price Index for Domestic Suppliers
- Export Price Index

These indices are calculated for each product classified according to the Classification of Products by economic activity (CPA) in 6 – digit level and are published in two digit level.

Renovation of the basket of enterprises and products is based on the results of Annual Structural Survey of enterprises year 2004.

For calculation of products' weights of Producer Price Index for Domestic suppliers are used data coming from SBS 2004 while for calculation of products' weights of Export Price Index are used data coming from Foreign Trade statistics.

The weights will be renovated every year, eliminating in this way price imputations of products that are not produced more from producers.

## PRODUCER PRICE INDEX SECOND QUARTER 2011

In the second quarter 2011, Producer Price Index reached 112.4 percent (Year 2005 = 100), signing an increase by 0.5 percent compared with previous quarter. Annual change of this index is +3.3 percent.

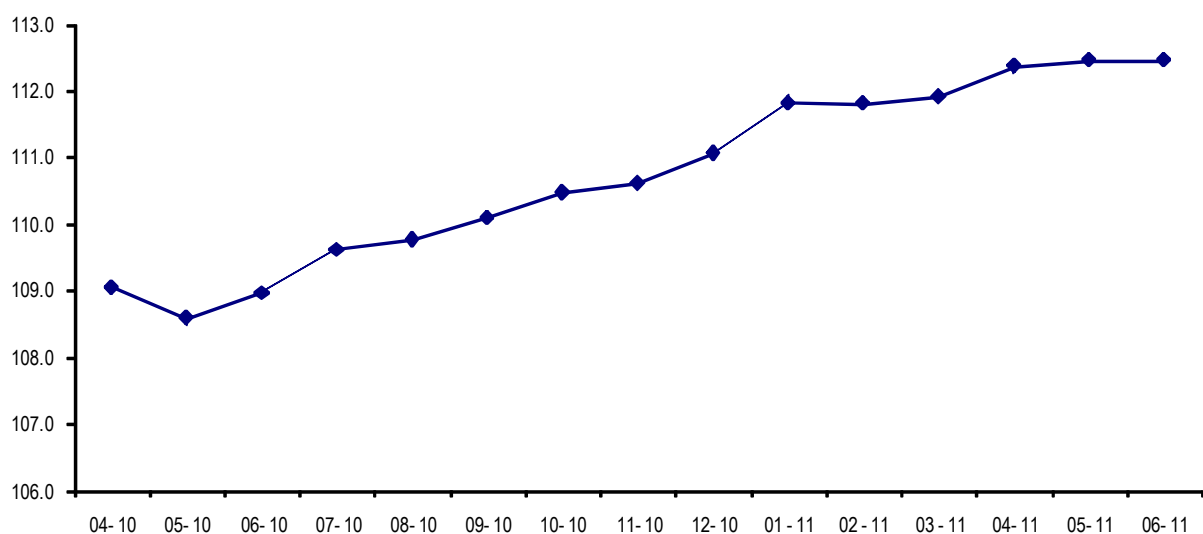
Index in "Mining and quarrying" increased by 0.5 percent. Here we can mention the increase of index prices of products in "Mining and quarrying of energy producing materials" activity by 1.8 percent. Producer prices in activity of "Mining and quarrying, except of energy producing materials" activity signed a decrease by 0.5 percent.

Producer price index in "Manufacturing" sector is increased by 0.9 percent. Within this sector we can mention the increase of index price in "Manufacture of food" activity with 1.4 percent, "Manufacture of textile" activity with 1.1 percent and "Furniture and other services" activity with 2.2 percent.

Producer Price Index for domestic production reached 110.5 percent signing an increase price by 0.2 percent compared with previous quarter. Here we can mention the increase price of "Mining and quarrying" sector by 1.8 percent and "Manufacture" sector by 0.3 percent.

Export index price (year 2005 = 100) reached 119.8 percent signing an increase price by 1.6 percent compared with previous quarter. Here we can mention the increase of index price in "Manufacturing" industry with 1.7 percent.

**Producer Price Index**



**Producer Price Index**  
(By economic activity)

2005 = 100

NACE	Description	Weights %	04 - 11	05 - 11	06 - 11	II - 11
<b>Total</b>		<b>100.0</b>	<b>112.4</b>	<b>112.5</b>	<b>112.5</b>	<b>112.4</b>
<b>C</b>	Mining and quarrying	5.7	140.7	140.5	140.4	140.5
CA	Mining and quarrying of energy producing materials	2.4	177.4	177.4	177.4	177.4
10	Mining of coal and lignite; extraction of peat	0.01	103.6	103.6	103.6	103.6
11	Extraction of crude petroleum and natural gas; serv. Acti. Incidental to oil and gas extraction, exclud. surveying	2.4	177.7	177.7	177.7	177.7
CB	Mining and quarrying, except of energy producing materials	3.3	102.2	102.0	101.9	102.0
13	Mining of metal ores	1.3	105.7	105.9	105.2	105.6
14	Other mining and quarrying	2.0	96.8	96.3	96.7	96.6
<b>D</b>	Manufacturing	57.4	122.2	122.4	122.4	122.3
DA	Manufacture of food products, beverages and tobacco	9.9	132.1	132.1	131.9	132.0
15	Manufacture of food products and beverages	9.8	133.1	133.1	133.0	133.1
16	Manufacture of tobacco products	0.1	77.5	77.5	77.5	77.5
DB	Manufacture of textiles and textile products	3.3	124.7	124.7	124.6	124.7
17	Manufacture of textiles	0.2	124.4	124.4	124.4	124.4
18	Manufacture of wearing apparel; dressing and dyeing of fur	3.1	123.8	123.8	123.7	123.8
DC	19 Tanning and dressing of leather, manufacture of luggage, handbags, saddlery, harness and footwear	3.2	126.4	128.9	129.0	128.1
DD	20 Manufacture of wood and wood products	0.5	111.9	111.9	111.9	111.9
DE	Manufacture of pulp, paper and paper products; publishing and printing	1.3	114.1	114.1	114.0	114.1
21	Manufacture of pulp, paper and paper products	0.4	108.6	108.3	108.2	108.3
22	Publishing, printing and reproduction of recorded media	0.9	121.1	121.1	121.1	121.1
DF	23 Manufacture of coke, refined petroleum products and nuclear fuel	13.6	175.2	175.2	175.2	175.2
DG	24 Manufacture of chemical products and man - made fibres	1.2	91.6	91.6	91.6	91.6
DH	25 Manufacture of rubber and plastic products	1.3	108.2	109.7	109.2	109.0
DI	26 Manufacture of other non - metallic mineral products	7.5	95.1	95.1	95.0	95.1
DJ	Manufacture of basic metals and fabricated metal products	13.2	116.5	116.5	116.7	116.5
27	Manufacture of basic metals	10.8	115.5	115.5	115.5	115.5
28	Manufacture of fabricated metal products, except machinery and equipment	2.4	118.5	118.5	119.6	118.8
DK	29 Manufacture of machinery and equipment n.e.c	0.3	132.6	135.4	132.6	133.6
DL	Manufacture of electrical and optical equipment	0.6	122.1	121.8	123.4	122.4
31	Manufacture of electrical machinery and apparatus n.e.c	0.6	127.5	127.2	129.0	127.9
33	Manufacture of medical and optical equipment	0.04	93.4	93.4	93.4	93.4
DN	Manufacturing n.e.c	1.5	126.1	126.4	126.5	126.3
36	Manufacturing n.e.c	1.4	129.9	130.2	130.3	130.2
37	Manufacture of reclamation metallic materials	0.1	94.9	94.9	94.9	94.9
<b>E</b>	Electricity, gas and water supply	36.9	77.0	77.0	77.0	77.0
EE	40 Electricity, gas, steam and hot water supply	34.5	71.9	71.9	71.9	71.9
41	Collection, purification and distribution of water	2.4	116.6	116.6	116.6	116.6

**Percent Changes of Producer Price Index  
(By economic activity)**

		2005 = 100		
NACE	Description	Weights %	Percent changes	
			II -11*	II - 11**
			I - 11	II - 10**
<b>Total</b>		<b>100.0</b>	<b>0.5</b>	<b>3.3</b>
<b>C</b>	Mining and quarrying	5.7	0.5	4.2
<b>C</b>	Mining and quarrying of energy producing materials	2.4	1.8	6.0
<b>10</b>	Mining of coal and lignite; extraction of peat	0.01	0.0	0.0
<b>11</b>	Extraction of crude petroleum and natural gas; serv. Acti. incidental to oil and gas extraction, exclud. surveying	2.4	1.8	6.0
<b>C</b>	Mining and quarrying, except of energy producing materials	3.3	-0.5	1.6
<b>13</b>	Mining of metal ores	1.3	-2.4	5.6
<b>14</b>	Other mining and quarrying	2.0	0.8	-0.8
<b>D</b>	Manufacturing	57.4	0.9	4.4
<b>D</b>	Manufacture of food products, beverages and tobacco	9.9	1.4	11.1
<b>15</b>	Manufacture of food products and beverages	9.8	1.5	11.5
<b>16</b>	Manufacture of tobacco products	0.1	-9.4	-9.4
<b>D</b>	Manufacture of textiles and textile products	3.3	1.1	3.6
<b>17</b>	Manufacture of textiles	0.2	1.7	3.5
<b>18</b>	Manufacture of wearing apparel; dressing and dyeing of fur	3.1	1.0	3.6
<b>D</b>	<b>19</b> Tanning and dressing of leather, manufacture of luggage, handbags, saddlery, harness and footwear	3.2	2.0	7.4
<b>D</b>	<b>20</b> Manufacture of wood and wood products	0.5	1.5	3.2
<b>D</b>	Manufacture of pulp, paper and paper products; publishing and printing	1.3	1.3	2.5
<b>21</b>	Manufacture of pulp, paper and paper products	0.4	3.9	3.9
<b>22</b>	Publishing, printing and reproduction of recorded media	0.9	0.1	1.9
<b>D</b>	<b>23</b> Manufacture of coke, refined petroleum products and nuclear fuel	13.6	0.0	10.6
<b>D</b>	<b>24</b> Manufacture of chemical products and man - made fibres	1.2	-4.2	-0.2
<b>D</b>	<b>25</b> Manufacture of rubber and plastic products	1.3	0.1	3.8
<b>DI</b>	<b>26</b> Manufacture of other non - metallic mineral products	7.5	0.8	1.9
<b>DJ</b>	Manufacture of basic metals and fabricated metal products	13.2	1.3	-4.2
<b>27</b>	Manufacture of basic metals	10.8	0.9	-5.7
<b>28</b>	Manufacture of fabricated metal products, except machinery and equipment	2.4	2.7	0.6
<b>D</b>	<b>29</b> Manufacture of machinery and equipment n.e.c	0.3	2.2	4.4
<b>DL</b>	Manufacture of electrical and optical equipment	0.6	2.1	4.2
<b>31</b>	Manufacture of electrical machinery and apparatus n.e.c	0.6	2.0	4.7
<b>33</b>	Manufacture of medical and optical equipment	0.04	3.5	0.5
<b>D</b>	Manufacturing n.e.c	1.5	2.2	7.6
<b>36</b>	Manufacturing n.e.c	1.4	2.3	8.4
<b>37</b>	Manufacture of reclamation metallic materials	0.1	0.0	0.0
<b>E</b>	Electricity, gas and water supply	36.9	0.0	0.2
<b>40</b>	Electricity, gas, steam and hot water supply	34.5	0.0	0.0
<b>41</b>	Collection, purification and distribution of water	2.4	0.0	1.1

\* Quarterly change rate measures the price changes between the current quarter and previous quarter.

\*\* Annual rate measures the price change between the current quarter and the same quarter of previous year.

**Producer Price Index for Domestic Supply  
(By economic activity)**

2005 = 100

NACE	Description	Weights %	04- 11	05- 11	06- 11	II - 11	II - 11 I-11
<b>Total</b>		<b>100.0</b>	<b>110.5</b>	<b>110.4</b>	<b>110.5</b>	<b>110.5</b>	<b>0.2</b>
<b>C</b>	Mining and quarrying	3.1	144.0	143.6	143.6	143.7	1.8
CA	Mining and quarrying of energy producing materials	0.6	194.7	194.7	194.7	194.7	9.3
10	Mining of coal and lignite; extraction of peat	0.0	138.0	138.0	138.0	138.0	0.0
11	Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction, excluding surveying	0.6	195.1	195.1	195.1	195.1	9.3
CB	Mining and quarrying, except of energy producing materials	2.5	101.7	101.3	101.3	101.4	0.0
13	Mining of metal ores	0.5	115.2	115.2	115.2	115.2	0.0
14	Other mining and quarrying	2.1	95.0	94.5	94.5	94.7	0.0
<b>D</b>	Manufacturing	49.9	121.5	121.5	121.6	121.6	0.3
DA	Manufacture of food products, beverages and tobacco	9.5	137.2	137.2	137.7	137.4	2.0
15	Manufacture of food products and beverages	9.3	138.1	138.2	138.7	138.3	2.2
16	Manufacture of tobacco	0.2	90.2	90.2	90.2	90.2	-9.8
DB	Manufacture of textiles and textile products	0.6	117.9	117.9	117.9	117.9	0.1
17	Manufacture of textiles	0.0	116.1	116.1	116.1	116.1	-1.1
18	Manufacture of wearing apparel; dressing and dyeing of fur	0.6	116.7	116.7	116.7	116.7	0.1
DC	19 Tanning and dressing of leather, manufacture of luggage, handbags, saddlery, harness and footwear	0.4	128.6	128.7	128.7	128.7	1.7
DD	20 Manufacture of wood and wood products	0.1	107.3	107.3	107.3	107.3	2.2
DE	Manufacture of pulp, paper and paper products; publishing and printing	1.2	116.5	116.3	116.3	116.4	0.1
21	Manufacture of pulp, paper and paper products	0.1	112.7	111.4	110.9	111.7	0.5
22	Publishing, printing and reproduction of recorded media	1.1	121.1	121.1	121.1	121.1	0.1
DF	23 Manufacture of coke, refined petroleum products and nuclear fuel	17.4	175.2	175.2	175.2	175.2	0.0
DG	24 Manufacture of chemical products and man-made fibres	1.2	87.9	87.9	87.9	87.9	-6.2
DH	25 Manufacture of rubber and plastic products	0.6	107.6	107.6	107.6	107.6	0.4
DI	26 Manufacture of other non-metallic mineral products	8.3	94.0	94.0	93.9	94.0	0.4
DJ	Manufacture of basic metals and fabricated metal products	10.2	113.4	113.4	113.4	113.4	-0.1
27	Manufacture of basic metals	9.6	112.7	112.7	112.7	112.7	-0.1
28	Manufacture of fabricated metal products, except machinery and equipment	0.6	114.2	114.1	114.2	114.2	-0.3
DK	29 Manufacture of machinery and equipment n.e.c	0.1	130.3	130.3	130.3	130.3	0.9
DL	31 Manufacture of electrical machinery and apparatus n.e.c	0.1	80.6	87.7	108.3	92.2	-7.8
DN	Manufacturing n.e.c	0.3	110.2	110.2	110.1	110.2	0.6
36	Manufacturing n.e.c	0.1	114.0	114.0	113.7	113.9	1.2
37	Manufacture of reclamation metallic materials	0.1	94.9	94.9	94.9	94.9	0.0
<b>E</b>	Electricity, gas and water supply	47.0	77.0	77.0	77.0	77.0	0.0
EE	Electricity, gas, steam and hot water supply	43.9	71.9	71.9	71.9	71.9	0.0
40	Electricity, gas, steam and hot water supply	43.9	71.9	71.9	71.9	71.9	0.0
41	Collection, purification and distribution of water	3.1	116.6	116.6	116.6	116.6	0.0

**Export price Index**  
(By economic activity)

2005 = 100

NACE	Description	Weights %	04 - 11	05 - 11	06 - 11	II - 11	II - 11 I-11
<b>Total</b>		<b>100.0</b>	<b>119.5</b>	<b>120.0</b>	<b>119.8</b>	<b>119.8</b>	<b>1.6</b>
<b>C</b>	Mining and quarrying	15.1	116.4	116.4	116.3	116.4	-0.5
CA	Mining and quarrying of energy producing materials	9.1	100.0	100.0	100.0	100.0	0.0
11	Extraction of crude petroleum and natural gas; service activities incidental to oil and gas extraction, excluding surveying	9.1	100.0	100.0	100.0	100.0	0.0
CB	Mining and quarrying, except of energy producing materials	5.9	106.3	106.3	106.1	106.3	-1.3
13	Mining of metal ores	4.2	100.4	100.7	99.6	100.2	-3.4
14	Other mining and quarrying	1.7	106.9	106.3	108.4	107.2	4.2
<b>D</b>	Manufacturing	84.9	125.7	126.3	126.2	126.1	1.7
DA	Manufacture of food products, beverages and tobacco	11.5	121.9	121.9	120.1	121.3	-0.5
15	Manufacture of food products and beverages	11.5	122.3	122.3	120.4	121.6	-0.5
16	Manufacture of tobacco products	0.0	85.5	85.5	85.5	85.5	0.0
DB	Manufacture of textiles and textile products	13.0	124.9	124.8	124.7	124.8	1.2
17	Manufacture of textiles	0.9	124.0	124.0	124.0	124.0	1.8
18	Manufacture of wearing apparel; dressing and dyeing of fur	12.1	124.0	124.0	123.9	123.9	1.2
DC	19 Tanning and dressing of leather, manufacture of luggage, handbags, saddlery, harness and footwear	13.7	125.9	128.7	128.8	127.8	2.0
DD	20 Manufacture of wood and wood products	1.8	113.5	113.5	113.5	113.5	1.2
DE	Manufacture of pulp, paper and paper products; publishing and printing	1.5	109.6	109.6	109.6	109.6	4.9
21	Manufacture of pulp, paper and paper products	1.5	104.6	104.6	104.6	104.6	4.9
DG	24 Manufacture of chemical products and man-made fibres						
DH	25 Manufacture of rubber and plastic products	1.3	106.9	106.9	106.9	106.9	2.3
DI	26 Manufacture of other non-metallic mineral products	3.5	116.1	118.8	117.8	117.6	-0.1
DJ	Manufacture of basic metals and fabricated metal products	4.9	110.3	110.4	110.4	110.3	3.5
27	Manufacture of basic metals	24.0	117.6	117.6	118.1	117.8	3.4
28	Manufacture of fabricated metal products, except machinery and equipment	14.9	116.1	116.1	116.1	116.1	3.3
		9.1	117.7	117.7	119.0	118.1	3.4
DK	29 Manufacture of machinery and equipment n.e.c	1.1	136.9	141.0	137.0	138.3	2.7
DL	Manufacture of electrical and optical equipment	2.7	123.6	122.7	122.7	123.0	2.7
33	Manufacture of medical and optical equipment	2.5	129.5	128.5	128.5	128.9	2.7
31	Manufacture of electrical machinery and apparatus n.e.c	0.2	93.4	93.4	93.4	93.4	3.5
DN	36 Manufacturing n.e.c	5.8	143.8	144.2	144.3	144.1	2.4

## Method of index calculation

Producer Price Index is base index and is calculated taking into consideration year 2005 as base year. Calculation's method used in compiling of this index is chain – index. It means that each transaction will be compared with its previous year December price (y -1). These price relatives will be weighted together to give index numbers for each 6-digit product group. These index numbers are aggregated to give index numbers for the 2-digit NACE and so on to give the export, domestic and total PPI. Hence, we will end up with monthly indices having December previous year as a base. These indices will then be chained to the previous indices for each year all the way back to the base.

For 2005 and 2006 Producer Price Index for domestic suppliers and Export price index are missing. For calculation of them we have used the same indices used for calculation of Total Producer Price Index.

## Price ratio

Is calculated automatically whenever price is entered, adjusted or imputed. The price ratio is also automatically adjusted when the base price is adjusted. One price ratio is calculated for each product each month. It is the current price divided either by the actual base price or by an adjusted base price.

## Weighting

Arithmetically weighted averages of individual observations will form the index numbers. The index (short-term-link) for a 6-digit NACE is calculated by multiplying all weights by their corresponding index numbers (price ratio) then divide by the sum of the weights.

## Imputation

The imputation is done by multiplying the previous reported price by the average monthly price movement of the closest higher level of aggregation (6-digit or 2-digit).

## Index calculation

For calculation of index is used Laspeyres type and is calculated as following:

$$L(1) \quad I_0^t = \frac{\sum_i P_{t,i} Q_{0,i}}{\sum_i P_{0,i} Q_{0,i}} = \sum_i \frac{P_{0,i} Q_{0,i}}{\sum_i P_{0,i} Q_{0,i}} \times \frac{P_{t,i}}{P_{0,i}}$$

Where:

I (t) - current index

P<sub>t,i</sub> - price of item i in period t

P<sub>0,i</sub> - price of item i in period 0

Q<sub>0,i</sub> - quantity of item in period 0

## Measures of index

The annual rate measures the price change between the current quarter and the same quarter of previous year. This measures is responsive to recent changes in price levels but can be influenced by one – off effects in either quarter.

Quarterly change measures the price changes between current quarter and previous quarter.

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