

# Consumer Price Index

## November, 2014

**Tirana, on December 09, 2014:** Consumer Price Index in November 116.1 % considerate December 2007 as base period.

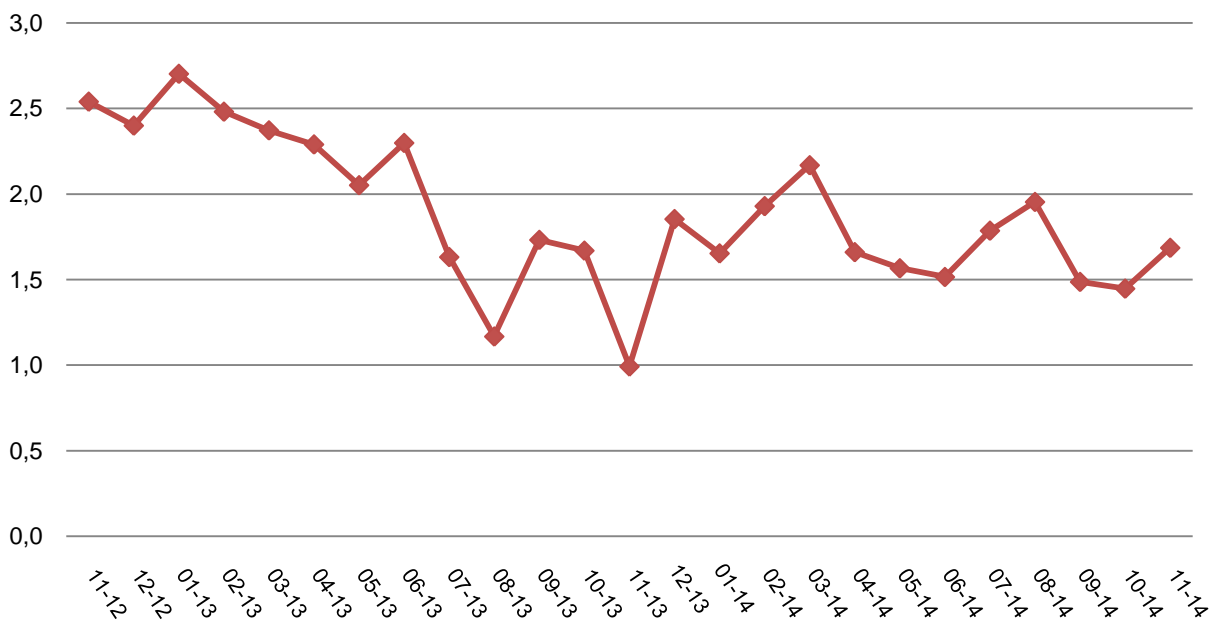
**In November 2014 the annual rate of consumer price is 1.7 %.** A year before the annual rate was 1.0 %.

**Contribution of main groups in yearly changes of CPI:** Annual growth rate in November was push up mainly from "Food and non-alcoholic beverage" by +0.84 p.p.. Higher prices of "Alcoholic beverages and tobacco" contributed by + 0.28 p.p. in annual rate. Prices of "Goods and different services" group contributed by + 0.18 p.p.. Prices of "Education service" and "House, water, electricity, gas and other fuel" groups contributed respectively by +0.16 p.p. and +0.15 p.p.. Low prices of "Health" group contributed by - 0.18 p.p. in annual rate. (see Fig. 2, pg 2)

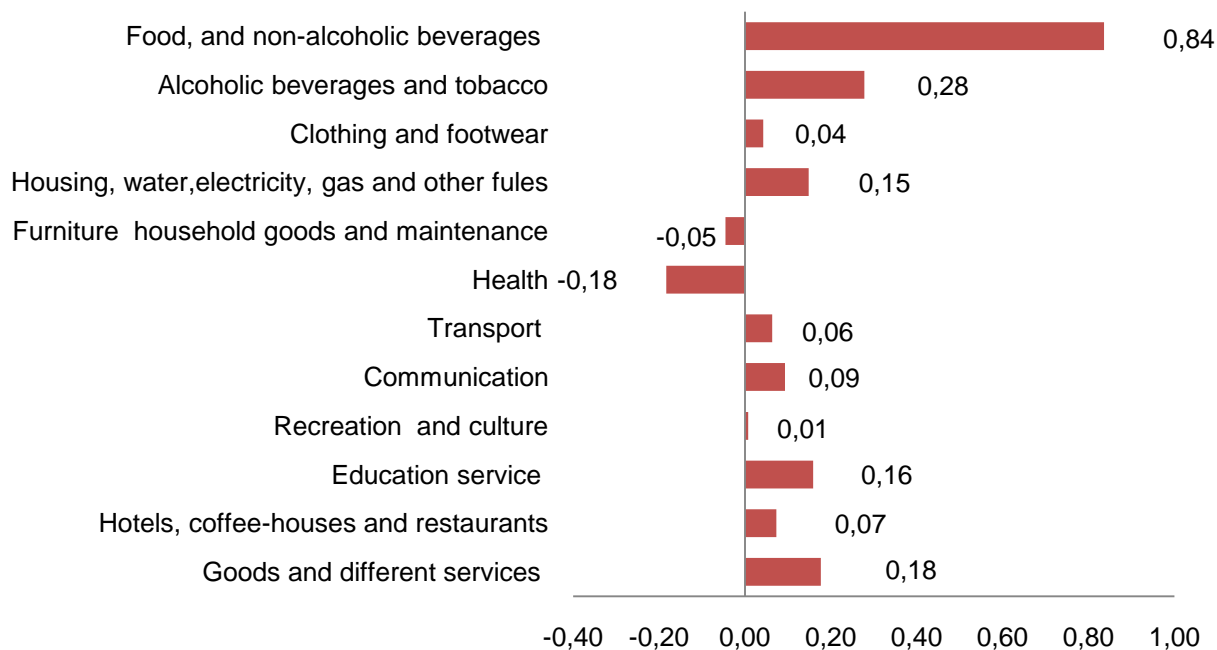
**Yearly rate of main groups:** Compared to November 2013, prices increased the most in the group "Education service" group by 11.2 %, followed by "Alcoholic drinks and tobacco" by 7.7 %. Prices of "goods and different services" and "Communication" group are increase by 3.6 %. Prices in "Food and non-alcoholic beverage" group are increased by 2.1 %. In this group prices of "vegetables include potatoes" subgroup are increased by 10.0 %, followed by "fruits" subgroup by 8.4 %, "milk, cheese and eggs" subgroup by 3.2 %, "fish" subgroup by 2.3 %, etc. Meanwhile prices of "oil and feat" are decreased by 7.4 %, followed by "coffee and tea "subgroup by 3.3 %, "sugar and desert" by 1.9 %, etc. On the other hand prices decreased the most in the "Health" group by 5.3 %.

**Monthly rate of consumer price is - 0.2 %.** Compared to October 2014 prices increased the most in the group "Alcoholic drinks and tobacco" group by 2.5 % where can be mentioned the increase price of tobacco by 4.1 %. Prices are decreased the most on the "Food and non-alcoholic beverage" group by 0.9 %. In November prices of "Transport group" was decrease by 0.4 %. Within this group price of diesel and petrol was decrease respectably by 1.5 % and 2.1 %

**Fig. 1 Annual rate of consumer price index**



**Fig. 2 Contribute of main groups in annual rate**



**Notice:** Contribution measure the impact of each expenditure main groups on the total yearly changes of the consumer price index in percent point. The total contribution is equal with yearly changes. For example yearly changes of "Food and non-alcoholic beverage" group in November 2014 is 2.1 %, their contribution on the yearly changes by 1.4 % is 0.84 p.p..

**Tab. 1 Consumer Price Index**

December 2007=100 %

Code	Groups	Weights	11-13	12-13	01-14	02-14	03-14	04-14	05-14	06-14	07-14	08-13	09-14	10-14	11-14
	<b>Total</b>	<b>100.0</b>	<b>114.2</b>	<b>116.2</b>	<b>117.1</b>	<b>118.7</b>	<b>119.3</b>	<b>118.6</b>	<b>117.3</b>	<b>116.5</b>	<b>115.9</b>	<b>116.0</b>	<b>116.3</b>	<b>116.4</b>	<b>116.1</b>
1	Food, and non-alcoholic beverages	39.3	120.7	125.3	127.1	130.7	132.2	130.4	127.5	125.8	124.3	124.5	125.1	124.4	123.3
2	Alcoholic beverages and tobacco	3.6	132.6	134.4	138.2	137.3	137.9	138.3	138.2	138.3	138.5	138.5	138.3	139.4	142.9
3	Clothing and footwear	5.1	85.5	85.6	85.5	84.3	84.3	84.6	84.2	83.9	83.1	83.0	83.5	85.5	86.2
4	Housing, water, electricity, gas and other fuels	16.3	114.3	115.2	115.0	115.0	114.9	114.7	114.4	114.2	114.2	114.1	114.1	115.1	115.4
5	Furniture household goods and maintenance	10.0	103.6	103.4	103.3	103.4	103.1	103.4	103.3	103.2	103.3	103.4	103.5	103.3	103.1
6	Health	3.4	121.9	121.7	122.0	122.0	121.9	118.8	117.0	115.6	114.8	114.9	114.9	114.9	115.4
7	Transport	6.1	118.0	117.9	119.3	119.6	119.5	119.6	119.7	119.9	120.1	120.5	120.2	119.7	119.3
8	Communication	2.6	79.9	79.9	80.0	80.0	80.0	81.1	81.2	81.2	81.6	81.6	82.1	82.1	82.8
9	Recreation and culture	3.1	114.8	114.7	114.5	114.7	114.8	114.8	114.9	114.9	114.7	114.8	115.6	115.2	115.1
10	Education service	1.4	109.0	109.0	109.3	110.0	109.9	110.2	110.2	110.2	110.2	110.2	110.7	121.2	121.2
11	Hotels, coffee-houses and restaurants	4.2	110.9	110.9	110.8	111.0	111.8	111.8	112.0	112.2	112.3	112.3	112.8	113.0	112.8
12	Goods and different services	4.9	111.9	112.2	112.4	116.9	117.2	117.0	117.1	116.8	116.1	115.9	116.3	116.4	116.0

**Tab. 2 Monthly rate of CPI**

%

Code	Groups	11-13	12-13	01-14	02-14	03-14	04-14	05-14	06-14	07-14	08-13	09-14	10-14	11-14
	<b>Total</b>	<b>-0.5</b>	<b>1.7</b>	<b>0.8</b>	<b>1.4</b>	<b>0.5</b>	<b>-0.6</b>	<b>-1.1</b>	<b>-0.7</b>	<b>-0.6</b>	<b>0.1</b>	<b>0.3</b>	<b>0.1</b>	<b>-0.2</b>
1	Food, and non-alcoholic beverages	-1.4	3.8	1.4	2.9	1.1	-1.4	-2.3	-1.3	-1.2	0.2	0.5	-0.6	-0.9
2	Alcoholic beverages and tobacco	2.2	1.3	2.9	-0.7	0.4	0.3	-0.1	0.1	0.1	0.0	-0.1	0.8	2.5
3	Clothing and footwear	0.0	0.2	-0.1	-1.4	-0.1	0.3	-0.4	-0.4	-0.9	-0.2	0.6	2.4	0.9
4	Housing, water, Electricity, gas and other fuels	0.3	0.8	-0.1	-0.1	-0.1	-0.1	-0.3	-0.2	0.0	-0.1	0.0	0.9	0.2
5	Furniture household goods and maintenance	0.1	-0.1	-0.1	0.1	-0.3	0.3	-0.1	-0.1	0.1	0.2	0.1	-0.2	-0.3
6	Health	0.0	-0.1	0.2	0.0	-0.1	-2.6	-1.5	-1.2	-0.7	0.1	0.0	0.0	0.4
7	Transport	-0.2	-0.1	1.2	0.2	-0.1	0.1	0.2	0.2	0.1	0.3	-0.2	-0.5	-0.4
8	Communication	0.0	0.0	0.1	0.0	0.0	1.4	0.1	0.0	0.5	0.0	0.6	0.0	0.9
9	Recreation and culture	-0.2	-0.1	-0.2	0.2	0.0	2.6	0.1	0.0	-0.1	0.1	0.8	-0.4	-0.1
10	Education service	0.0	0.0	0.2	0.7	-0.1	0.2	0.0	0.0	0.0	0.0	0.4	9.6	0.0
11	Hotels, coffee-houses and restaurants	0.0	0.0	0.0	0.2	0.7	0.0	0.2	0.1	0.0	0.0	0.5	0.2	-0.2
12	Goods and different services	-0.2	0.2	0.2	4.0	0.3	-0.1	0.0	-0.3	-0.5	-0.2	0.3	0.1	-0.4

Tab. 3 Annual rate of CPI

Code	Groups	11-13/11-12	12-13/12-12	01-14/01-13	02-14/02-13	03-14/03-13	04-14/04-13	05-14/05-13	06-14/06-13	07-14/07-13	08-13/08-12	09-14/09-13	10-14/10-13	11-14/11-13	%
	<b>Total</b>	<b>1.0</b>	<b>1.9</b>	<b>1.7</b>	<b>1.9</b>	<b>2.2</b>	<b>1.7</b>	<b>1.6</b>	<b>1.5</b>	<b>1.8</b>	<b>2.0</b>	<b>1.5</b>	<b>1.4</b>	<b>1.7</b>	
1	Food, and non-alcoholic beverages	2.1	3.5	2.7	2.9	2.8	1.8	2.1	2.1	2.6	3.2	2.1	1.6	2.1	
2	Alcoholic beverages and tobacco	3.2	4.2	7.3	6.3	6.8	7.2	6.6	6.9	6.9	7.1	6.8	7.4	7.7	
3	Clothing and footwear	-3.7	-3.4	-2.7	-3.4	-3.2	-2.8	-2.8	-2.0	-2.2	-2.3	-1.9	0.0	0.8	
4	Housing, water, Electricity, gas and other fuels	1.5	2.3	2.0	2.0	2.1	2.0	1.8	1.2	1.3	1.1	0.2	1.0	0.9	
5	Furniture household goods and maintenance	-0.1	-0.5	-0.7	-0.7	-1.0	-0.8	-0.8	-0.8	-0.6	-0.5	-0.1	-0.1	-0.5	
6	Health	-1.6	-1.5	-1.3	-1.3	-1.4	-3.9	-5.3	-6.3	-6.1	-5.6	-5.7	-5.7	-5.3	
7	Transport	-1.0	-1.2	0.6	0.9	0.9	0.5	0.6	1.0	1.2	1.0	1.5	1.2	1.0	
8	Communication	-1.4	-2.9	-2.8	-2.8	-2.8	-1.4	-1.2	-1.3	-0.7	-0.8	-0.3	2.7	3.6	
9	Recreation and culture	0.1	-0.2	-0.2	0.1	0.3	0.3	0.4	0.3	0.0	-0.2	0.3	0.2	0.3	
10	Education service	0.1	0.1	0.3	1.0	0.9	1.1	1.1	0.8	0.8	0.8	1.5	11.2	11.2	
11	Hotels, coffee-houses and restaurants	2.5	1.9	1.8	1.9	2.7	2.6	2.7	2.4	2.5	1.9	1.8	1.9	1.7	
12	Goods and different services	-1.2	3.3	1.6	5.6	11.0	10.8	8.0	8.2	8.5	7.8	8.7	3.8	3.6	

# Methodology

Consumer Price Index (CPI) is calculated with a new basket of product from December 2007. Weights are based on the results of the Household Budget Survey, carried out during October 2006 – September 2007. December 2007 is considered as the base period (December 2007 = 100). Previous change of the product basket was from January 2002, where the number of the products was increased from 221 to 262 products. In the new basket the number of product is 272. The international classification COICOP with 12 main groups was introduced which is totally comparable with the expenditure classification used by EUROSTAT.

The weights are calculated based on the urban and rural household expenditure. The index covers all Albanian (rural and urban) territory. The previous index covered only the urban area. The product weights will be different for each region. Prices are collected in main cities of 11 prefectures where Kukës is within the prefecture of Dibër.

The Consumer Price Index of Albania is a Laspeyres type index:

$$I_{0,i}^t = \frac{\sum_i P_i^t * Q_i^0}{\sum_i P_i^0 * Q_i^0}$$

With weights ( $w = P*Q$ ) from base period this is approximated to:

$$I_{0,i}^t = \sum_i w_i * \left( \frac{P_i^t}{P_i^0} \right)$$

In more detail, a price relative is calculated for each item and region with geometrical mean on the sample of outlets:

$$PR_{t-1,ij}^t = \prod_{k=1}^n \left( \frac{P_{ijk}^t}{P_{ijk}^{t-1}} \right)^{1/n}$$

Monthly chaining gives the price relative from the base period:

$$PR_{0,ij}^t = PR_{0,ij}^1 * \dots * PR_{t-1,ij}^t$$

Regional CPI is calculated:

$$RIÇKI_{i,0}^t = \sum_i r_{ij} * PR_{0,ij}^t$$

The price relatives are aggregated geographically to form product indices on items for whole Albania:

$$I_{0,i}^t = \sum_j r_{ij} * PR_{0,ij}^t \quad \text{Where: } \sum_j r_{ij} = 1 \quad : \quad \forall_i \text{ (for all cases)}$$

Aggregation over items then gives the CPI of Albania:

$$CPI_0^t = \sum_i w_i * I_{0,i}^t \quad \text{Where: } \sum_i w_i = 1$$

#### Acronyms

P	price
PR	price relative
I	index
CPI	Consumer Price Index
t	time period t
t=0	base period
r	geographical weights
w	item weights
j	numbering of regions
i	numbering of items

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

The monthly rate measures the price change between current month and previous month. Although up-to-date it can be affected by seasonal and other effects.

The 12-month average rate compares average Consumer Price Indices ant the latest 12 month to the average of the previous 12 months.