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# **Consumer Price Index**

### February, 2014

**Tirana, on March 10, 2014:** Consumer Price Index in February 2014 result 118.7 % considerate December 2007 as base period.

**In February 2014 the annual rate of consumer price is 1.9 %**. A year before the annual rate was 2.5 Compared to February 2013, prices increased the most in the group "Alcoholic drinks and tobacco" by 6.3 %, followed by "Goods and different service " group by 5.6 %, "Food and non-alcoholic beverage" group by 2.9 %, "House" water, fuel and power" group by 2.0 %, "Hotel, coffee house and restaurant" by 1.9 % etc. On the other hand goods and service prices are lower in the "Clothing and footwear" by 2.7 %, followed by "Communication" group by 2.8 %, "Health" group by 1.3 % etc.

Annual growth rate in February was push up mainly from "Food and non-alcoholic beverage" by 1.14 p.p. In this group prices of "fruits" subgroup are increased by 17.5 % and price of "vegetables" subgroup are increased by 12.7 %. Meanwhile prices of "oil and feat" subgroup are decrease by 4.4 % followed by "sugar and desert" by 3.8 %, "coffee and tea" by 1.6 %, "milk, cheese and eggs" by 0.6 %, etc. Higher prices of "Alcoholic beverages and tobacco" contributed by 0.23 p.p. in annual rate. Compared with one year before, price of tobacco is increased by 11.6 %. Prices of "Housing, water, fuel and power" group contributed also by 0.33 p.p. In this group prices of materials for maintenance of house are increased by 2.6 % and prices of drinking water by 0.7 %.

Low prices of "Clothing and footwear" group contributed by - 0.18 p.p. in annual rate. "Communication" and "Furniture and household goods" groups contributed by -0.07 p.p.

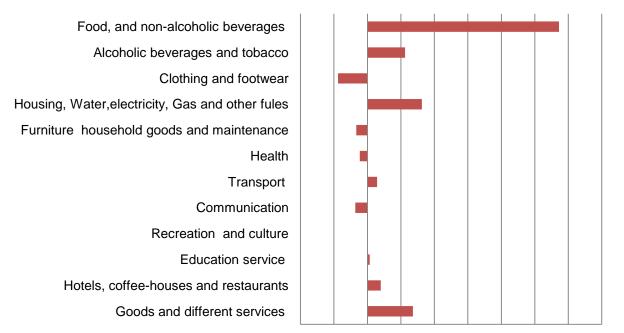
**In February monthly rate of consumer price is 1.4 %.** Monthly rate of prices was push up mainly by "Food and non-alcoholic beverage" by 1.13 p.p. Prices of vegetables are increased by 17.4 % and fruits by 1.9 %. Higher prices of "Goods and different services" contributed by 0.2 p.p. in monthly rate. In this group, tariffs of car insurance are increase by 27.6 %.

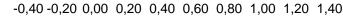
Prices "Transport" group contributed by 0.02 p.p. in monthly rate. Prices of diesel and petrol are increase by 0.5 %.

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Fig. 2 Contribute of main groups in annual rate





#### Tab. 1 Consumer Price Index

Decem	December 2007=100 %														
Code	Groups	Weights	02-13	03-13	04-13	05-13	06-13	07-13	08-13	09-13	10-13	11-13	12-13	01-14	02-14
	Total	100.0	116.5	116.8	116.6	115.5	114.8	113.8	113.7	114.6	114.8	114.2	116.2	117.1	118.7
1	Food, and non-alcoholic beverages	39.3	127.0	128.6	128.1	124.9	123.1	121.1	120.7	122.6	122.4	120.7	125.3	127.1	130.7
2	Alcoholic beverages and tobacco	3.6	129.2	129.1	129.0	129.7	129.5	129.5	129.3	129.4	129.8	132.6	134.4	138.2	137.3
3	Clothing and footwear	5.1	87.3	87.1	87.0	86.7	85.6	85.0	84.9	85.1	85.5	85.5	85.6	85.5	84.3
4	Housing, Water, electricity, Gas and other fuels	16.3	112.7	112.6	112.5	112.4	112.9	112.7	112.8	113.9	114.0	114.3	115.2	115.0	115.0
5	Furniture household goods and maintenance	10.0	104.1	104.1	104.2	104.1	104.0	103.9	104.0	103.7	103.4	103.6	103.4	103.3	103.4
6	Health	3.4	123.6	123.6	123.6	123.6	123.4	122.3	121.7	121.9	121.9	121.9	121.7	122.0	122.0
7	Transport	6.1	118.5	118.4	118.9	119.1	118.8	118.7	119.2	118.5	118.3	118.0	117.9	119.3	119.6
8	Communication	2.6	82.3	82.3	82.3	82.2	82.2	82.2	82.2	82.3	79.9	79.9	79.9	80.0	80.0
9	Recreation and culture	3.1	114.6	114.4	114.4	114.4	114.5	114.6	115.0	115.3	115.0	114.8	114.7	114.5	114.7
10	Education service	1.4	108.9	108.9	108.9	108.9	109.3	109.3	109.3	109.1	109.0	109.0	109.0	109.3	110.0
11	Hotels, coffee-houses and restaurants	4.2	109.0	108.9	109.0	109.1	109.5	109.6	110.2	110.8	110.9	110.9	110.9	110.8	111.0
12	Goods and different services	4.9	110.7	105.6	105.6	108.4	107.9	107.1	107.5	107.0	112.2	111.9	112.2	112.4	116.9

## Tab. 2 Monthly rate of CPI

														%
Code	Groups	02-13	03-13	04-13	05-13	06-13	07-13	08-13	09-13	10-13	11-13	1213	01-14	02-14
	Total	1.1	0,3	-0.1	-1.0	-0.6	-0.8	-0.1	0.8	0.1	-0.5	1.7	0.8	1.4
1	Food. and non-alcoholic beverages	2.6	1.2	-0.4	-2.5	-1.4	-1.7	-0.4	1.6	-0.1	-1.4	3.8	1.4	2.9
2	Alcoholic beverages and tobacco	0.3	0.0	-0.1	0.6	-0.2	0.0	-0.2	0.1	0.3	2.2	1.3	2.9	-0.7
3	Clothing and footwear	-0.6	-0.3	-0.1	-0.4	-1.2	-0.9	-0.2	0.3	0.4	0.0	0.2	-0.1	-1.4
4	Housing. Water. electricity. Gas and other fuels	0.0	-0.2	0.0	-0.1	0.4	-0.1	0.1	0.9	0.2	0.3	0.8	-0.1	-0.1
5	Furniture household goods and maintenance	0.1	0.0	0.1	0.0	-0.1	-0.1	0.1	-0.3	-0.2	0.1	-0.1	-0.1	0.1
6	Health	0.0	0.0	0.0	0.0	-0.1	-1.0	-0.4	0.1	0.0	0.0	-0.1	0.2	0.0
7	Transport	-0.1	-0.1	0.4	0.1	-0.3	-0.1	0.5	-0.6	-0.1	-0.2	-0.1	1.2	0.2
8	Communication	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	-2.9	0.0	0.0	0.1	0.0
9	Recreation and culture	-0.1	-0.2	0.0	0.1	0.0	0.1	0.3	0.3	-0.3	-0.2	-0.1	-0.2	0.2
10	Education service	0.0	0.0	0.0	0.0	0.3	0.0	0.0	-0.2	0.0	0.0	0.0	0.2	0.7
11	Hotels. coffee-houses and restaurants	0.1	0.0	0.1	0.1	0.4	0.0	0.6	0.5	0.1	0.0	0.0	0.0	0.2
12	Goods and different services	0.1	-4.6	0.0	2.6	-0.4	-0.8	0.4	-0.5	4.9	-0.2	0.2	0.2	4.0

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### Tab. 3 Annual rate of CPI

														%
Code	Groups	02-13/02-12	03-13/03-12	04-13/04-12	05-13/05-12	06-13/06-12	07-13/07-12	08-13/08-12	09-13/09-12	10-13/10-12	11-13/11-12	12-13/12-12	01-14/01-13	02-14/02-13
	Total	2.5	2.4	2.3	2.1	2.3	1.6	1.2	1.7	1.7	1.0	1.9	1.7	1.9
1	Food. and non-alcoholic beverages	4.9	5.6	5.7	4.9	5.4	4.0	2.8	3.9	3.5	2.1	3.5	2.7	2.9
2	Alcoholic beverages and tobacco	3.9	3.6	3.5	4.3	4.1	4.1	3.9	2.4	1.2	3.2	4.2	7.3	6.3
3	Clothing and footwear	-3.2	-3.4	-3.4	-3.6	-4.5	-4.4	-3.8	-3.7	-3.8	-3.7	-3.4	-2.7	-3.4
4	Housing. Water. electricity. Gas and other fuels	-0.1	-0.5	-0.9	-1.0	-0.5	-0.5	-0.5	1.5	1.6	1.5	2.3	2.0	2.0
5	Furniture household goods and maintenance	1.4	1.3	1.2	0.7	0.5	0.4	0.5	0.2	-0.1	-0.1	-0.5	-0.7	-0.7
6	Health	1.1	1.1	0.1	0.1	-0.1	-1.0	-1.5	-1.4	-1.5	-1.6	-1.5	-1.3	-1.3
7	Transport	0.6	-0.7	-0.3	0.5	1.1	0.5	0.3	-0.9	-1.0	-1.0	-1.2	0.6	0.9
8	Communication	1.3	1.3	1.3	1.3	1.3	1.2	1.3	1.3	-1.4	-1.4	-2.9	-2.8	-2.8
9	Recreation and culture	1.5	0.8	0.3	0.4	0.4	0.9	0.8	0.6	0.4	0.1	-0.2	-0.2	0.1
10	Education service	1.8	1.8	1.8	1.8	2.2	2.2	2.2	2.0	0.1	0.1	0.1	0.3	1.0
11	Hotels. coffee-houses and restaurants	1.9	1.7	1.8	1.5	1.9	2.1	2.7	3.1	3.0	2.5	1.9	1.8	1.9
12	Goods and different services	1.4	-3.5	-3.6	-1.0	-1.6	-2.4	-2.0	-3.0	1.8	-1.2	3.3	1.6	5.6

# 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 budges 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 to the previous product basket and it will continue to be used with the new product basket. The index will cover 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 were 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:

$$I_{0,i}^{t} = \sum_{i} w_{i} * \begin{pmatrix} p_{i}^{t} \\ p_{i}^{0} \end{pmatrix}$$

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

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

Monthly chaining gives the price relative from the base period:

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

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:

$$I_{0,i}^{t} = \sum_{j} r_{ij} * PR_{0,ij}^{t}$$
 Where:  $\sum_{j} r_{ij} = 1$  :  $\forall_{i}$  (for all cases)

Aggregation over items then gives the CPI of Albania:

$$CPI_{0}^{t} = \sum_{i} w_{i.} * I_{0,i}^{t}$$
 Where:  $\sum_{i} w_{i.} = 1$ 

Acronyms

Р	price
PR	price relative
	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 upto-date it can be affected by seasonal and other effects.

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