



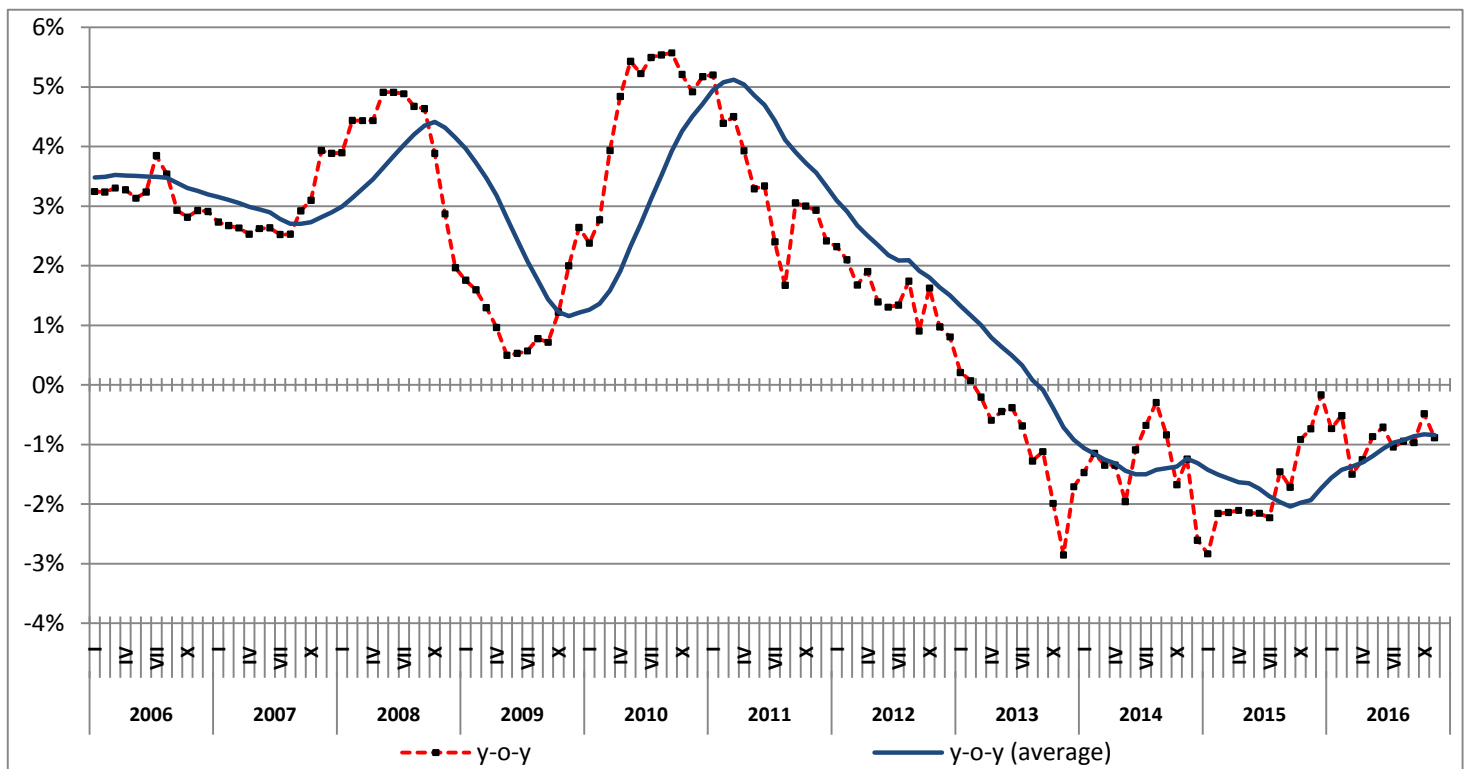
## PRESS RELEASE

### CONSUMER PRICE INDEX: November 2016, annual inflation -0.9%

The Consumer Price Index (CPI) in November 2016 compared with November 2015 decreased by 0.9%. In November 2015, the annual rate of change of the CPI was -0.7% (Table 2).

The CPI in November 2016 compared with October 2016 decreased by 1.2%. In November 2015, the monthly rate of change of the CPI was -0.8% (Table 1).

In the twelve-month period from December 2015 to November 2016, compared with the period from December 2014 to November 2015, the annual average rate of change of the CPI was -0.8%. The corresponding annual average rate of change of the CPI in the previous year (December 2014 to November 2015) was -1.9% (Table 3).



y-o-y: CPI annual rates

y-o-y (average) : CPI annual average rates

#### Information:

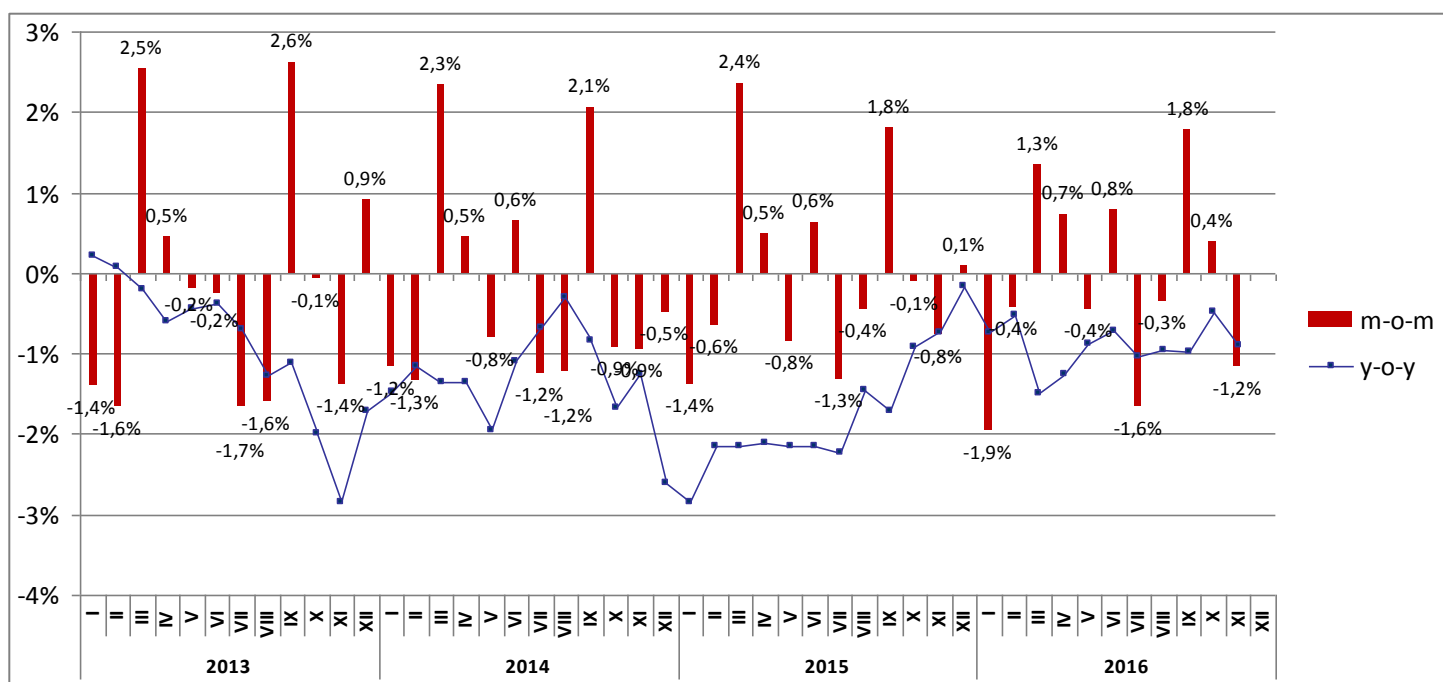
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**Table 1**  
**Monthly rates of change of the Consumer Price Index – November 2016**  
**(2009=100.0)**

Main groups of goods and services	Weights HBS 2014 (%)	2016		Rate of change %	2015		Rate of change %
		November	October		November	October	
1 Food & non-Alcoholic Beverages	218.10	103.76	104.38	-0.6	105.92	105.97	-0.1
2 Alcoholic Beverages & Tobacco	42.79	136.42	136.36	0.0	134.67	134.30	0.3
3 Clothing and Footwear	65.30	93.44	105.15	-11.1	97.47	107.50	-9.3
4 Housing	129.19	119.24	119.46	-0.2	119.15	119.47	-0.3
5 Household Equipment	51.15	91.58	92.83	-1.3	94.28	94.26	0.0
6 Health	75.42	97.77	97.88	-0.1	97.81	97.90	-0.1
7 Transport	122.40	114.71	115.64	-0.8	114.77	115.14	-0.3
8 Communication	42.74	99.10	99.10	0.0	98.42	98.39	0.0
9 Recreation and Culture	44.71	90.59	90.91	-0.4	92.19	91.95	0.3
10 Education	33.47	89.03	89.03	0.0	89.91	89.90	0.0
11 Hotels Cafés & Restaurants	103.94	105.94	106.31	-0.3	104.58	105.18	-0.6
12 Miscellaneous Goods & Services	70.79	93.86	94.73	-0.9	95.80	96.32	-0.5
<b>Overall Index</b>	<b>1000.00</b>	<b>104.57</b>	<b>105.80</b>	<b>-1.2</b>	<b>105.51</b>	<b>106.32</b>	<b>-0.8</b>

Note: 1. The indices are calculated with infinite decimal figures and rounded up to two decimal figures when published.  
 2. Percentage changes are calculated on the basis of indices with infinite decimal figures and rounded up to one decimal figure when published.

**Annual and monthly rates of change of CPI**



m-o-m: monthly rates of change

y-o-y: annual rates of change

**Table 2**  
**Inflation - Annual rates of change of the Consumer Price Index – November 2016**  
**(2009=100.0)**

**I**

Main groups of goods and services	November		Rate of change (%)	Effect
	2016	2015		
1 Food and non Alcoholic Beverages	103.76	105.92	-2.0	-0.4454
2 Alcoholic Beverages and Tobacco	136.42	134.67	1.3	0.0711
3 Clothing and Footwear	93.44	97.47	-4.1	-0.2493
4 Housing	119.24	119.15	0.1	0.0106
5 Household Equipment	91.58	94.28	-2.9	-0.1311
6 Health	97.77	97.81	0.0	-0.0027
7 Transport	114.71	114.77	-0.1	-0.0070
8 Communication	99.10	98.42	0.7	0.0276
9 Recreation and Culture	90.59	92.19	-1.7	-0.0680
10 Education	89.03	89.91	-1.0	-0.0277
11 Hotels Cafés and Restaurants	105.94	104.58	1.3	0.1348
12 Miscellaneous Goods and Services	93.86	95.80	-2.0	-0.1302
<b>Overall Index</b>	<b>104.57</b>	<b>105.51</b>	<b>-0.9</b>	

**II**

Main groups of goods and services	November		Rate of change (%)	Effect
	2015	2014		
1 Food and non Alcoholic Beverages	105.92	102.59	3.2	0.6584
2 Alcoholic Beverages and Tobacco	134.67	132.69	1.5	0.0834
3 Clothing and Footwear	97.47	100.18	-2.7	-0.1600
4 Housing	119.15	124.83	-4.5	-0.7234
5 Household Equipment	94.28	95.66	-1.4	-0.0755
6 Health	97.81	96.50	1.4	0.0925
7 Transport	114.77	120.19	-4.5	-0.6281
8 Communication	98.42	98.42	0.0	0.0001
9 Recreation and Culture	92.19	93.46	-1.4	-0.0534
10 Education	89.91	90.41	-0.6	-0.0154
11 Hotels Cafés and Restaurants	104.58	102.56	2.0	0.1869
12 Miscellaneous Goods and Services	95.80	99.24	-3.5	-0.2304
<b>Overall Index</b>	<b>105.51</b>	<b>106.30</b>	<b>-0.7</b>	

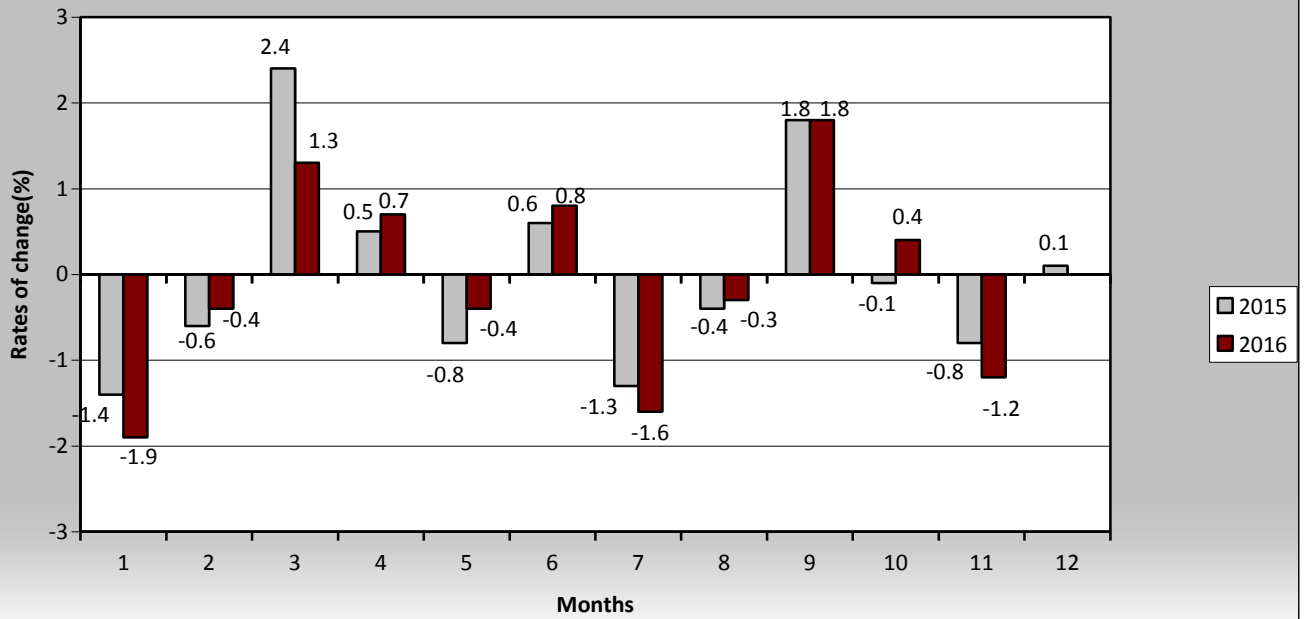
Note: 1. The indices are calculated with infinite decimal figures and rounded up to two decimal figures when published.  
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**Table 3**  
**Comparisons of the overall Consumer Price Index**  
**(2009=100.0)**

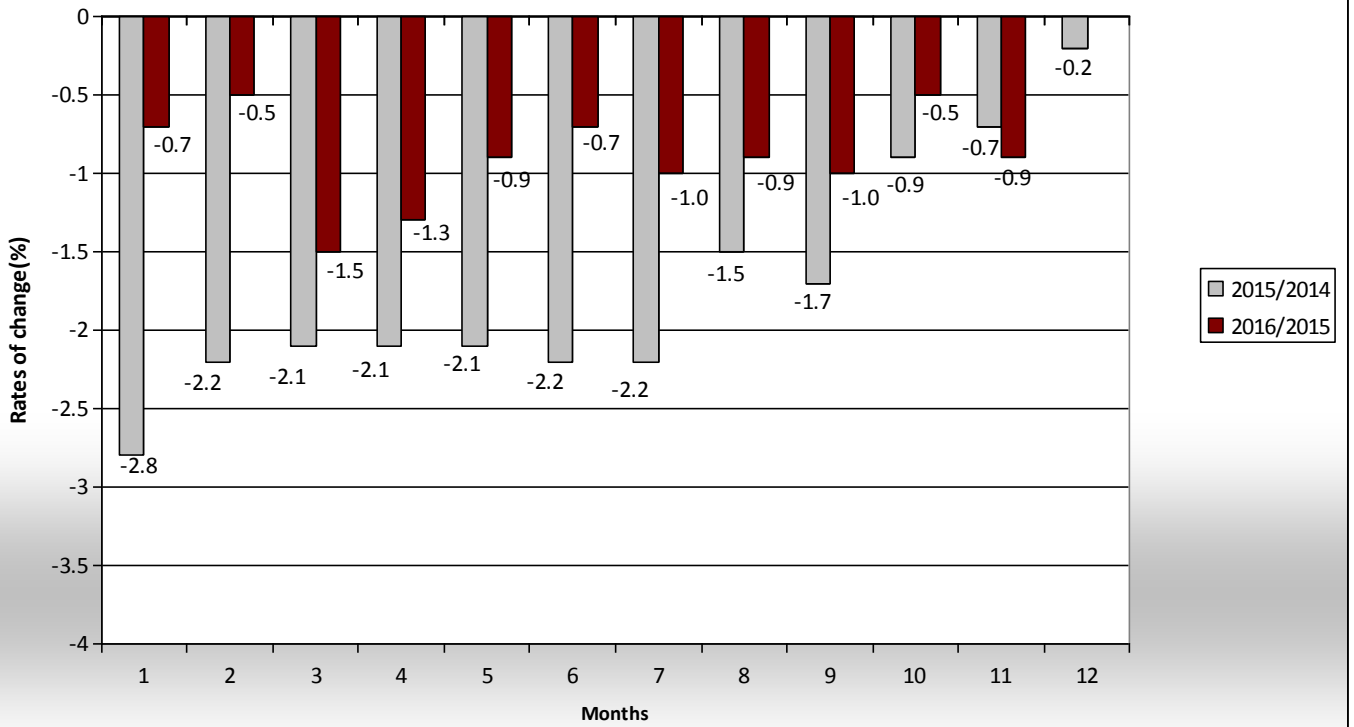
Year and month	Overall index	Monthly rates of change %	Annual rates of change Inflation %	Annual average index (moving average)	Annual average rates of change %
<b>2013 : 1</b>	108.97	-1.4	0.2	109.84	1.3
2	107.17	-1.6	0.1	109.85	1.2
3	109.90	2.5	-0.2	109.83	1.0
4	110.41	0.5	-0.6	109.78	0.8
5	110.21	-0.2	-0.4	109.73	0.6
6	109.95	-0.2	-0.4	109.70	0.5
7	108.13	-1.7	-0.7	109.64	0.3
8	106.41	-1.6	-1.3	109.52	0.1
9	109.20	2.6	-1.1	109.42	-0.1
10	109.13	-0.1	-2.0	109.23	-0.4
11	107.64	-1.4	-2.9	108.97	-0.7
12	108.62	0.9	-1.7	108.81	-0.9
<b>Annual average</b>	<b>108.81</b>	-	-	<b>108.81</b>	<b>-0.9</b>
<b>2014 : 1</b>	107.37	-1.2	-1.5	108.68	-1.1
2	105.94	-1.3	-1.1	108.58	-1.2
3	108.42	2.3	-1.3	108.45	-1.3
4	108.92	0.5	-1.3	108.33	-1.3
5	108.05	-0.8	-2.0	108.15	-1.4
6	108.75	0.6	-1.1	108.05	-1.5
7	107.40	-1.2	-0.7	107.99	-1.5
8	106.09	-1.2	-0.3	107.96	-1.4
9	108.29	2.1	-0.8	107.88	-1.4
10	107.30	-0.9	-1.7	107.73	-1.4
11	106.30	-0.9	-1.2	107.62	-1.2
12	105.79	-0.5	-2.6	107.38	-1.3
<b>Annual average</b>	<b>107.38</b>	-	-	<b>107.38</b>	<b>-1.3</b>
<b>2015 : 1</b>	104.32	-1.4	-2.8	107.13	-1.4
2	103.65	-0.6	-2.2	106.94	-1.5
3	106.10	2.4	-2.1	106.75	-1.6
4	106.63	0.5	-2.1	106.56	-1.6
5	105.73	-0.8	-2.1	106.36	-1.7
6	106.40	0.6	-2.2	106.17	-1.7
7	105.00	-1.3	-2.2	105.97	-1.9
8	104.54	-0.4	-1.5	105.84	-2.0
9	106.42	1.8	-1.7	105.68	-2.0
10	106.32	-0.1	-0.9	105.60	-2.0
11	105.51	-0.8	-0.7	105.54	-1.9
12	105.61	0.1	-0.2	105.52	-1.7
<b>Annual average</b>	<b>105.52</b>	-	-	<b>105.52</b>	<b>-1.7</b>
<b>2016 : 1</b>	103.56	-1.9	-0.7	105.46	-1.6
2	103.12	-0.4	-0.5	105.41	-1.4
3	104.51	1.3	-1.5	105.28	-1.4
4	105.28	0.7	-1.3	105.17	-1.3
5	104.81	-0.4	-0.9	105.09	-1.2
6	105.65	0.8	-0.7	105.03	-1.1
7	103.91	-1.6	-1.0	104.94	-1.0
8	103.55	-0.3	-0.9	104.85	-0.9
9	105.39	1.8	-1.0	104.77	-0.9
10	105.80	0.4	-0.5	104.73	-0.8
11	104.57	-1.2	-0.9	104.65	-0.8

Note: 1. The indices are calculated with infinite decimal figures and rounded up to two decimal figures when published.  
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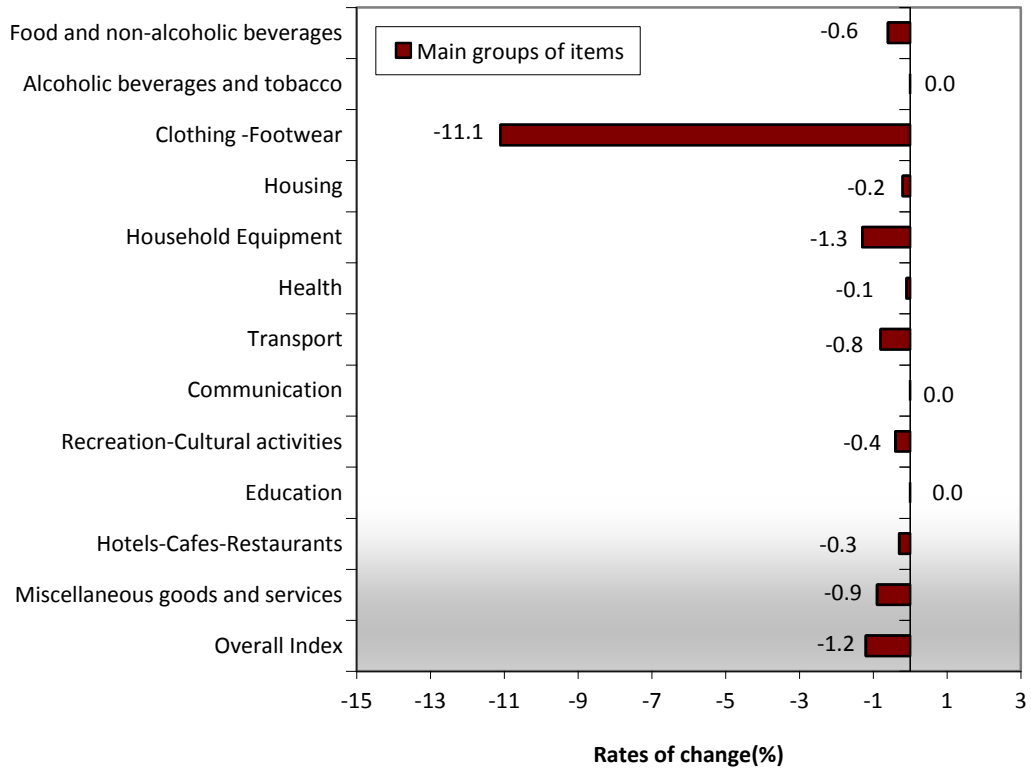
Monthly rates of change (%) of the overall Consumer Price Index during the years 2015 and 2016



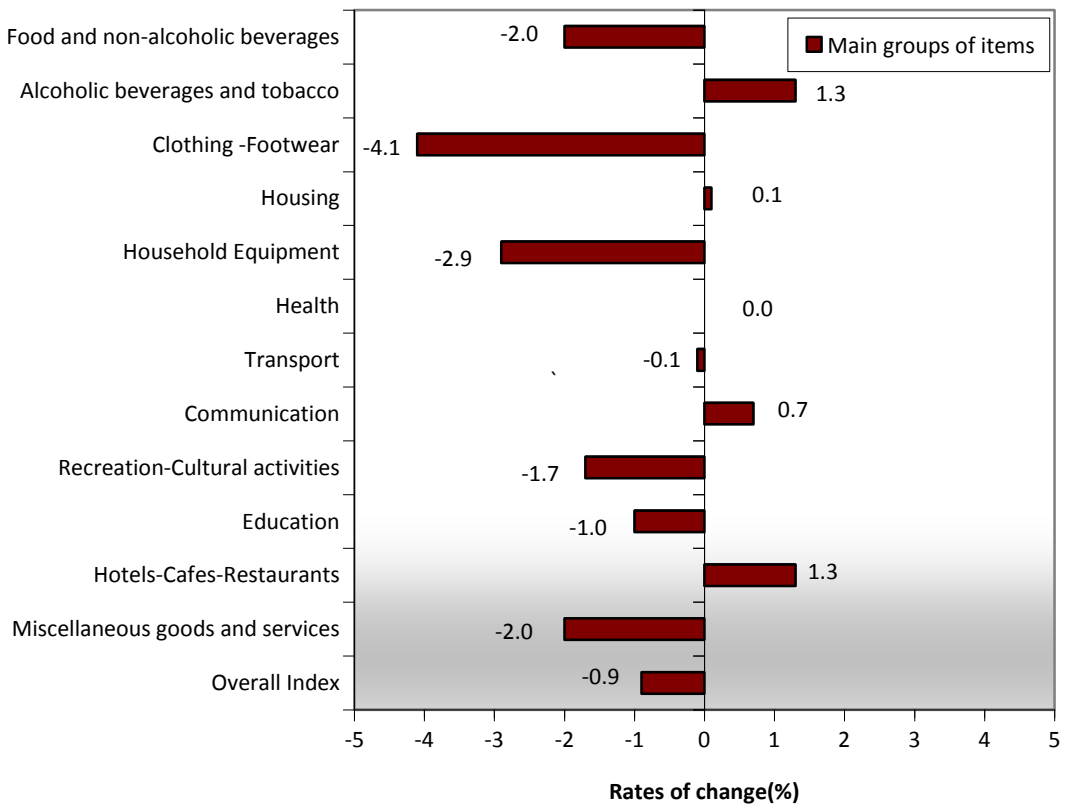
Annual rates of change (%) of the overall Consumer Price Index during the years 2015 and 2016

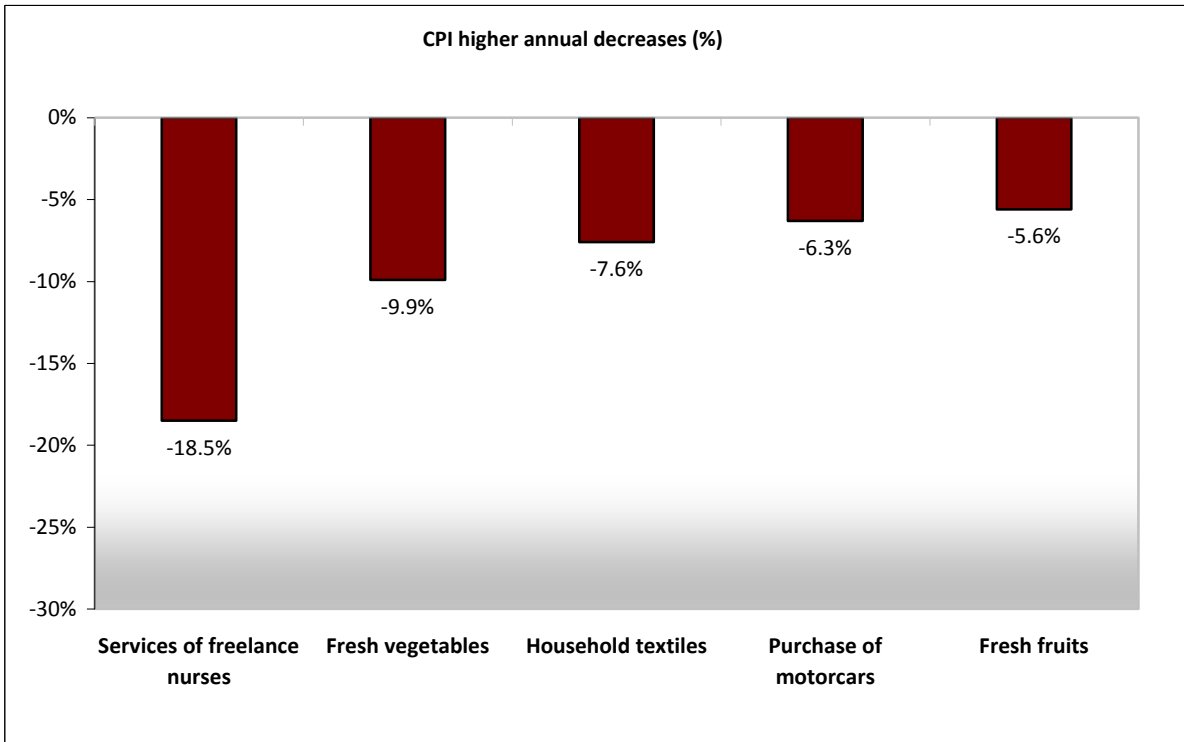
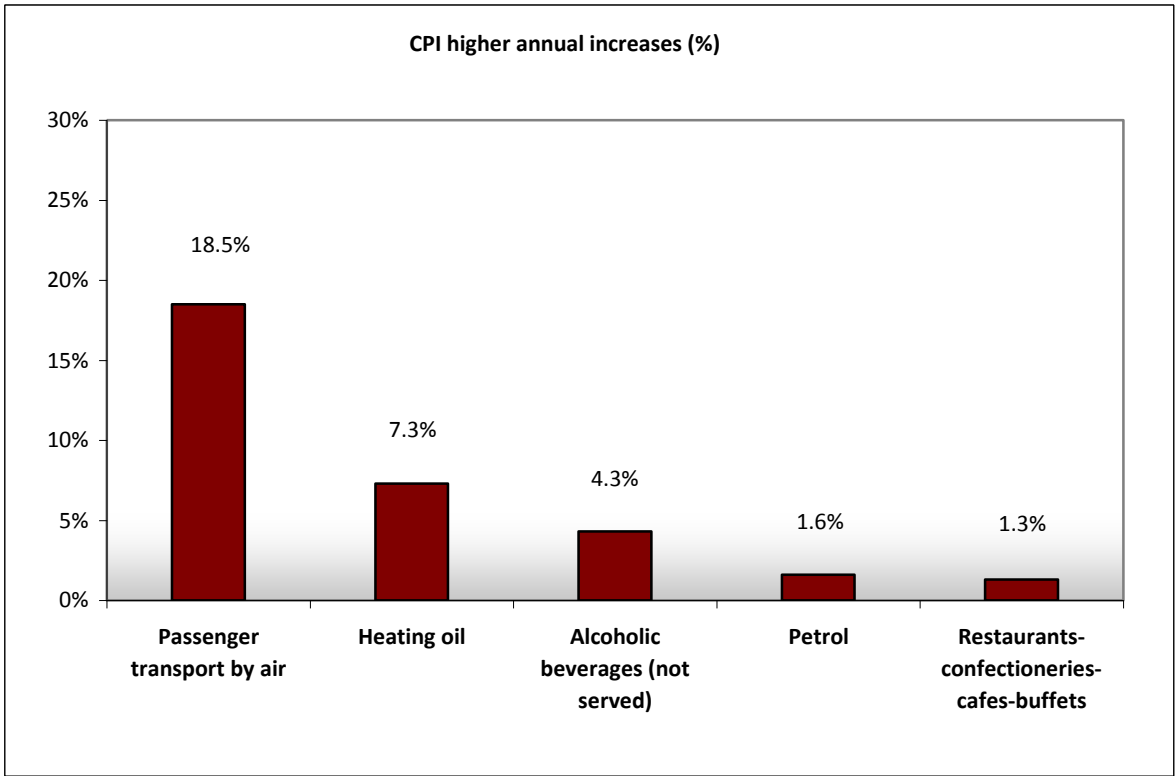


Monthly rates of change (%) of the CPI between November 2016 and October 2016

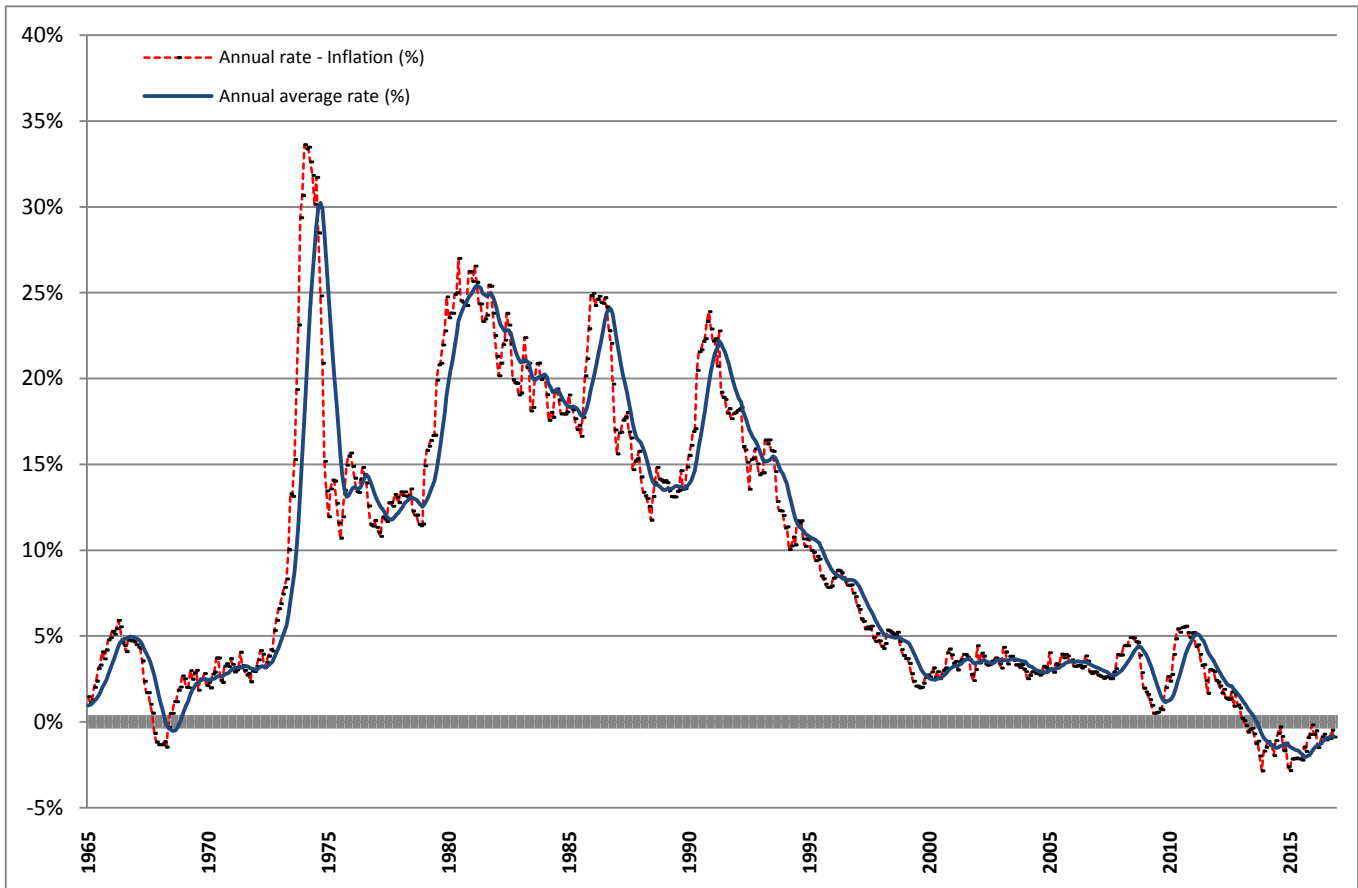


Annual rates of change (%) of the CPI between November 2016 and November 2015





## Historical evolution of CPI for the period 1965-2016





## METHODOLOGICAL NOTES

<b>Generally</b>	The Consumer Price Index (CPI) is compiled by the Hellenic Statistical Authority (ELSTAT) since 1959. Up to the year 2000, the CPI referred to the urban areas of the country, while from 2001 onwards it refers to the whole country covering urban, semi urban and rural areas.
<b>Purpose of the index</b>	The purpose of the CPI is to measure the general level of prices of goods and services purchased by the average Greek household.
<b>Legal basis</b>	<a href="#">Law 3832/2010</a> .
<b>Reference period</b>	Month.
<b>Base</b>	December of the previous year.
<b>Reference year</b>	2009=100.0.
<b>Chain linking Index</b>	The CPI index follows the chain linking method, introducing new weights annually and having as a base December of the previous year. The weights are estimated on the basis of the most recent available data of the Household Budget Survey (HBS), extrapolated to the prices of December. The CPI, adjusted on an annual basis to the most recent consumption expenditure pattern of the private households of the country, ensures the representativeness of goods and services, which compose the “basket” of purchases of the average household.
<b>Geographical and population coverage of the CPI</b>	The CPI refers to the whole country and covers the resident households of the territory excluding collective households (hospital homes for the elderly, boarding homes, prisons, etc.) and non-resident households (tourists) in the country.
<b>Classification of items</b>	The classification of the CPI items (goods and services) is based on the international classification COICOP (Classification of Individual consumption by Purpose) as this has been adapted to the needs of the HICPs of the EU Member States with the COICOP5/HICP classification.
<b>Weights of items</b>	The weights of CPI items are updated every year, on the basis of the most recent available data of HBS. The weights are calculated as the share (‰) of the expenditures for each group, subgroup and item (good or service) to the total household expenditure of the average household.
<b>Price collection Cities</b>	The CPI prices are collected in 27 cities with representative markets for the coverage of the 13 Regions of the country. The selection criteria of the price collection cities are the size and the particularities of their markets, the possibility of continuous price collection, the comparability of the index and the cost of price collection.
<b>Population weights</b>	The calculation of the population weights by regions is based on the population data of the 2011 General Population Census and the expenditure data of the latest available HBS by regions.
<b>Selection of items</b>	<a href="#">The composition of the "household basket"</a> i.e. the selection of goods and services which are included in the calculation of CPI is updated annually, using the results of the latest available HBS, other market research, etc. The chain linking methodology allows the change of items of the household basket on an annual basis, in order to ensure the representativeness of the items involved in the calculation of groups and subgroups of CPI.
<b>Price collection-Outlets</b>	The prices collection outlets are retail stores, enterprises providing services, street markets etc. which are considered representative of the branches of shops, where the households make their purchases in the 27 selected cities. The methodology allows the renewal of price collection sources, annually, in order to maintain their representativeness in the calculation of CPI. Prices are collected by employees of ELSTAT as well as private temporary hired price collectors. They visit the selected outlets within a certain time period of a month (monthly prices) or on a certain day of the week (weekly prices). The collected prices correspond to the prices actually faced by the consumer.
<b>Specification-Substitution of items</b>	All the collected items are defined by the specification, that is the particular characteristics which determine the quality, the trade show and the identity, in general, of goods (such as brand, weight, package etc), in order to avoid any price variations attributable to differences in the specification. Upon a specified item (good or service) becomes no longer available in the market or has ceased to be important, as regards consumption, its substitution by a newly specified item, which has taken its place in the market, is implemented.

## Calculation of the Consumer Price Index

The Consumer Price Index is a Laspeyres-type index and it is calculated based on December of the previous year.

### Implementation of formula in five-digit level of COICOP5

Specifically, if the five-digit item h includes q price collected items, then its index in month t of year T,  $R_h^{t,T}$ , is given by the formula below:

$$R_h^{t,T} = R_h^{12,T-1} \left[ \frac{\sum_{i=1}^q w_i^T R_i^{t,T} / R_i^{12,T-1}}{\sum_{i=1}^q w_i^T} \right],$$

where:

$R_h^{12,T-1}$  = the index of the five-digit item h, in December of year T-1.

$w_i^T$  = the weight of the price collected item i, in year T.

$R_i^{t,T}$  = the index of the price collected item i, in month t of year T.

$R_i^{12,T-1}$  = the index of the price collected item i, in December of year T-1.

A similar methodology is followed for the calculation of indices in the upper levels (two-digit, three-digit and four-digit) of COICOP5 and the calculation of the overall CPI as well.

**Publication of data** The announced CPI time series, with reference year (2009=100.0), covers the period from January 1959 onwards. The CPI data are released each month as scheduled, in accordance with the Press Releases Calendar of ELSTAT, with the [Press Release and the tables](#).

**References** Further information concerning the methodology and the compilation of the CPI is available in the [Methodological Publication CPI \(2009=100.0\)](#) and the [Single Integrated Metadata Structure \(SIMS\)](#) as well as in the [information note for CPI of January 2016](#).