HELLENIC REPUBLIC
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PRESS RELEASE

CONSUMER PRICE INDEX: March 2018, annual inflation -0.2%

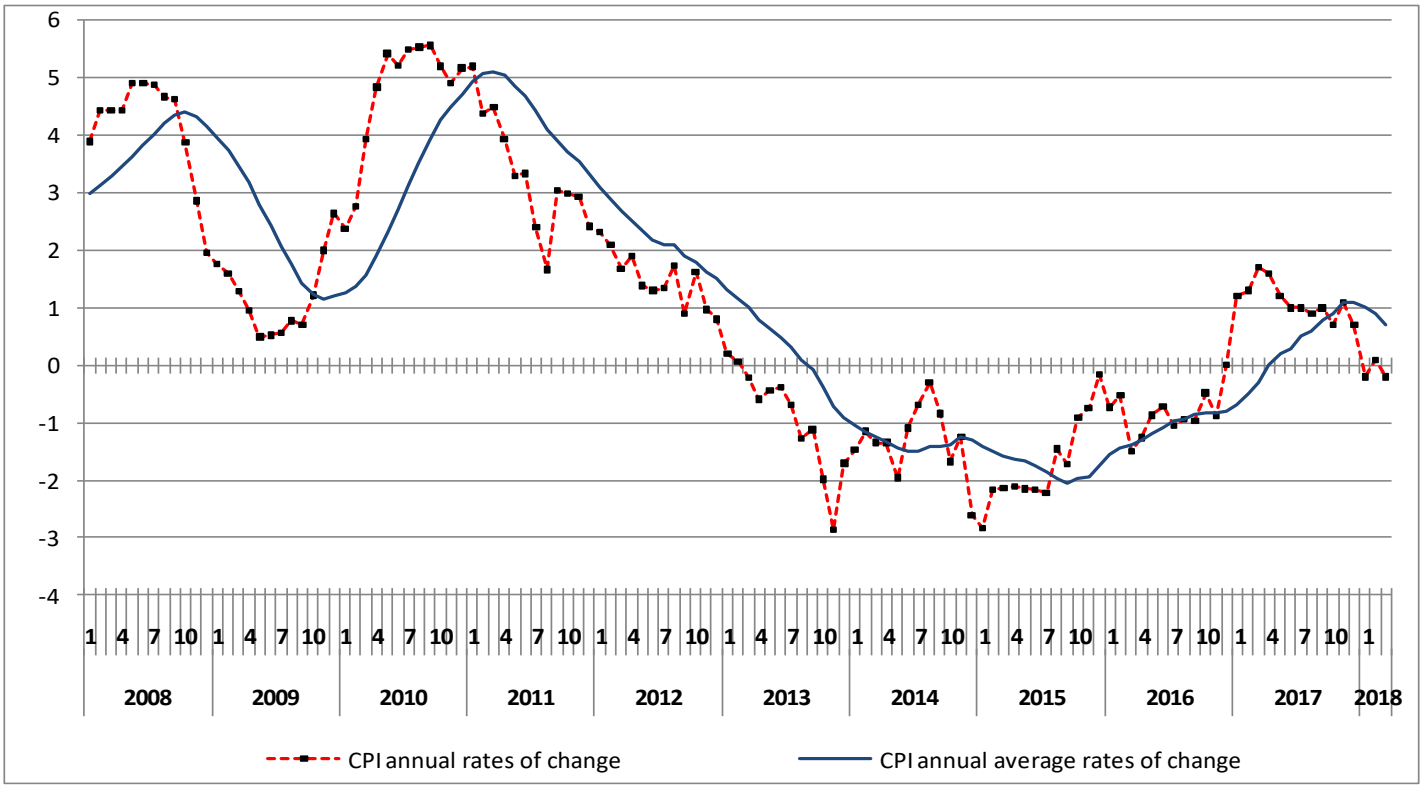
The evolution of the Consumer Price Index (CPI) of March 2018 (reference year 2009=100.0) is depicted as follows:

The CPI in March 2018 compared with March 2017 decreased by 0.2%. In March 2017, the annual rate of change of the CPI was 1.7% (Table 2).

The CPI in March 2018 compared with February 2018, increased by 1.5%. In March 2017, the monthly rate of change of the CPI was 1.8% (Table 1).

The average CPI for the twelve - month period from April 2017 to March 2018, compared with the corresponding index for the period April 2016 to March 2017 increased by 0.7%. The annual rate of change of the average CPI between the twelve - month period April 2016 to March 2017 in comparison to the period April 2015 to March 2016 was -0.3% (Table 3).

Graph 1. Annual and annual average rates of change (%) of CPI



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Analysis of changes of the CPI: March 2018

I. Monthly rates of change: March 2018 compared with February 2018 (Tables 1, 4)

The 1.5% increase of the Overall CPI in March 2018, compared with the corresponding index in February 2018 is, mainly, on account of the changes in the main groups of goods and services as follows:

1. An increase of*:*

- 29.5% in Clothing and footwear, due to the recovery, partly, of prices up to normal levels before the winter sales period.
- 1.1% in Household equipment, due to the recovery of prices up to normal levels before the winter sales period. This increase was partly offset by the decrease, mainly, in the prices of *non-durable household articles*.
- 0.5% in Transport, due to the increase, mainly, in the prices of *tickets for passenger transport by air*. This increase was partly offset, mainly, by the decrease of *petrol*.
- 0.3% in Hotel - Cafés - Restaurants, due to the increase, mainly, in the prices of: *restaurants-confectioneries-cafés-buffets, hotels-motels-inns.*

2. A decrease of:

- 0.2% in Housing, due to the decrease, mainly, in the prices of *heating oil*.
- 0.5% in Health, due to the decrease, mainly, in the prices of *pharmaceutical products.*

II. Annual rates of change: March 2018 compared with March 2017 (Tables 2, 5)

The decrease of 0.2% of the Overall CPI in March 2018, compared with the corresponding index in March 2017 is, mainly, on account of the changes in the main groups of goods and services as follows:

1. A decrease of:

- 0.8% in Food and non-alcoholic beverages due to the decrease, mainly, in the prices of: *bread and cereals*, *lamb and goat*, *poultry, fresh fish, fresh fruit, fresh vegetables, potatoes.* This decrease was partly offset by the increase, mainly, in the prices of*: olive oil, coffee, cheese, milk whole fresh.*
- 1.7% in Housing, due to the decrease, mainly, in the prices of: *actual rentals paid by tenants, electricity, natural gas.* This decrease was partly offset by the increase, mainly, in the prices of *heating oil*.
- 0.3% in Clothing and footwear, due to the decrease, mainly, in the prices of articles of clothing and footwear.
- 2.1% in Household equipment, due to the decrease, mainly, in the prices of: *furniture and furnishings*, *household textiles, non-durable household articles.*
- 0.3% in Health, due to the decrease, mainly, in the prices of: *pharmaceutical products*, *dental services.* This decrease was partly offset by the increase, mainly in the prices of *hospital and clinic services.*
- 0.1% in Communication, due to the decrease, mainly, in the prices of *telephone and telefax equipment*.
- 1.3% in Recreation and culture, due to the decrease, mainly, in the prices of: *audiovisual and information processing equipment, major durables for recreation and culture*.
- 2.2% in Miscellaneous goods and services, due to the decrease, mainly, in the prices of: *other appliances and articles for personal care, motor vehicle insurance*.

2. An increase of:

- 6.1 % in Alcoholic beverages and tobacco, due to the increase, mainly, in the prices of *tobacco*.
- 0.8% in Transport, due to the increase, mainly, in the prices of: *tickets for passenger transport by air, petrol.* This increase was partly offset by the decrease, mainly, in the prices of *maintenance and repair of personal transport equipment.*
- 0.2% in Education, due to the increase, mainly, in the prices of fees of *secondary education*.
- 1.3% in Hotel - Cafés - Restaurants, due to the increase, mainly, in the prices of: *restaurants-confectioneries-cafés-buffets, hotels-motels-inns.*

Table 1. Monthly rates of change of CPI
(Reference year: 2009=100.0)

Main groups of goods and services	Weights HBS 2016 (‰)	2018 March	2018 February	Rate of change %	2017 March	2017 February	Rate of change %
1. Food & non-alcoholic beverages	206.21	105.23	105.22	0.0	106.06	106.28	-0.2
2. Alcoholic beverages and tobacco	43.55	146.67	146.75	-0.1	138.20	138.15	0.0
3. Clothing and footwear	64.99	94.97	73.35	29.5	95.24	72.40	31.5
4. Housing	136.71	118.71	118.92	-0.2	120.80	120.96	-0.1
5. Household equipment	45.23	89.36	88.41	1.1	91.27	90.25	1.1
6. Health	74.02	96.47	96.94	-0.5	96.74	96.84	-0.1
7. Transport	146.20	122.62	121.97	0.5	121.64	118.62	2.5
8. Communication	41.89	100.37	100.37	0.0	100.47	100.49	0.0
9. Recreation and culture	41.00	89.28	89.19	0.1	90.42	90.45	0.0
10. Education	32.54	89.22	89.22	0.0	89.03	89.03	0.0
11. Hotels - Cafés - Restaurants	101.33	107.85	107.52	0.3	106.43	106.35	0.1
12. Miscellaneous goods and services	66.34	91.99	91.95	0.0	94.10	94.10	0.0
Overall Index	**1000.00**	**106.08**	**104.52**	**1.5**	**106.33**	**104.46**	**1.8**

Note: The indices are rounded up to two decimal figures when published and percentage changes up to one decimal figure when published.

Graph 2. Annual and monthly rates of change (%) of CPI

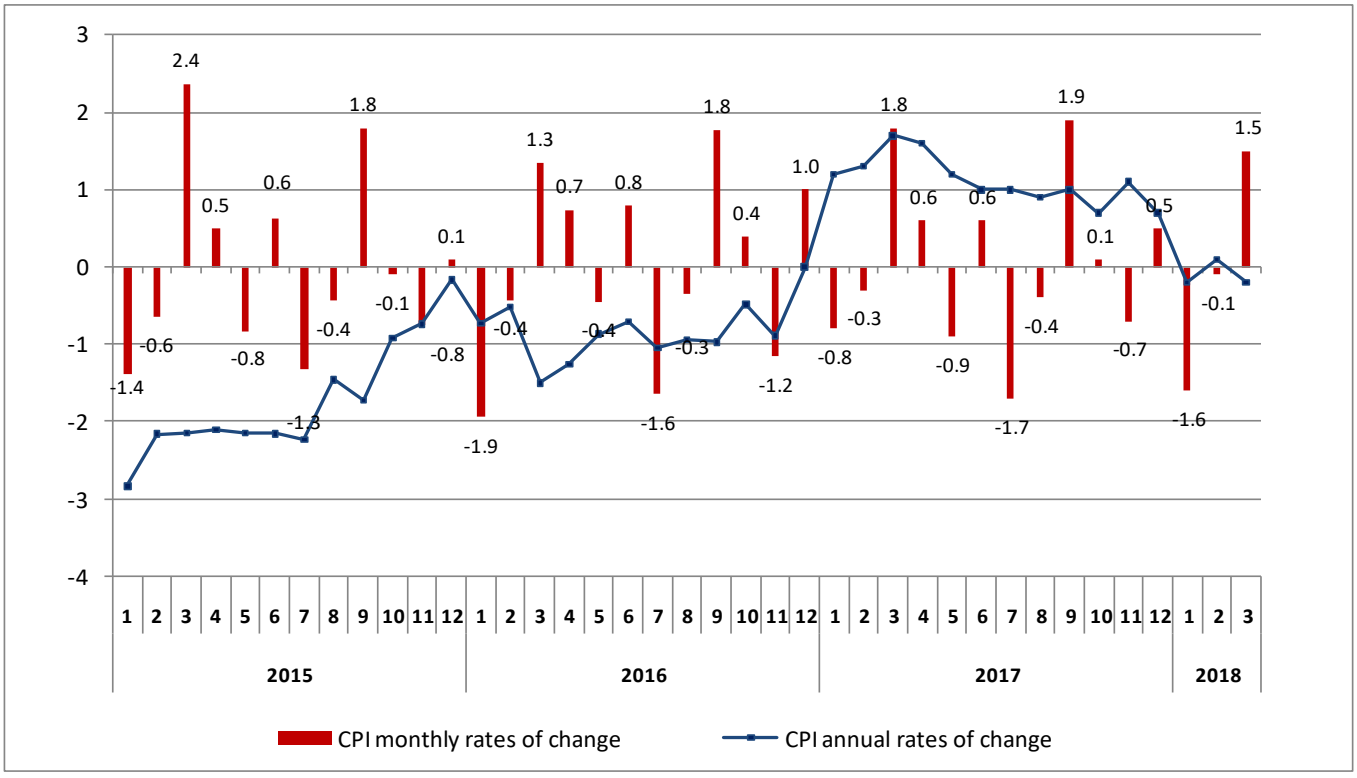


Table 2. Inflation - Annual rates of change of CPI
(Reference year: 2009=100.0)

I: March 2018/2017

	Main groups of goods and services	March		Rate of change (%)	Effect
		2018	2017		
1.	Food and non alcoholic beverages	105.23	106.06	-0.8	-0.1634
2.	Alcoholic beverages and tobacco	146.67	138.20	6.1	0.2559
3.	Clothing and footwear	94.97	95.24	-0.3	-0.0315
4.	Housing	118.71	120.80	-1.7	-0.2330
5.	Household equipment	89.36	91.27	-2.1	-0.0960
6.	Health	96.47	96.74	-0.3	-0.0207
7.	Transport	122.62	121.64	0.8	0.1175
8.	Communication	100.37	100.47	-0.1	-0.0042
9.	Recreation and culture	89.28	90.42	-1.3	-0.0511
10.	Education	89.22	89.03	0.2	0.0067
11.	Hotels - Cafés - Restaurants	107.85	106.43	1.3	0.1363
12.	Miscellaneous goods and services	91.99	94.10	-2.2	-0.1503
	Overall Index	**106.08**	**106.33**	**-0.2**	

II: March 2017/2016

	Main groups of goods and services	March		Rate of change (%)	Effect
		2017	2016		
1.	Food and non alcoholic beverages	106.06	104.43	1.6	0.3219
2.	Alcoholic beverages and tobacco	138.20	134.41	2.8	0.1514
3.	Clothing and footwear	95.24	95.15	0.1	0.0054
4.	Housing	120.80	116.59	3.6	0.5383
5.	Household equipment	91.27	94.43	-3.3	-0.1405
6.	Health	96.74	99.43	-2.7	-0.1984
7.	Transport	121.64	111.99	8.6	1.3303
8.	Communication	100.47	98.39	2.1	0.0832
9.	Recreation and culture	90.42	91.52	-1.2	-0.0433
10.	Education	89.03	89.27	-0.3	-0.0073
11.	Hotels - Cafés - Restaurants	106.43	104.69	1.7	0.1710
12.	Miscellaneous goods and services	94.10	96.01	-2.0	-0.1227
	Overall Index	**106.33**	**104.51**	**1.7**	

Note: The indices are rounded up to two decimal figures when published and percentage changes up to one decimal figure when published.

Table 3. Comparisons of the overall CPI
(Reference year: 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 %
2015: 1	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
Annual average	***105.52***	-	-	***105.52***	***-1.7***
2016: 1	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
12	105.64	1.0	0.0	104.65	-0.8
Annual average	***104.65***	-	-	***104.65***	***-0.8***
2017: 1	104.76	-0.8	1.2	104.75	-0.7
2	104.46	-0.3	1.3	104.86	-0.5
3	106.33	1.8	1.7	105.01	-0.3
4	107.01	0.6	1.6	105.16	0.0
5	106.06	-0.9	1.2	105.26	0.2
6	106.72	0.6	1.0	105.35	0.3
7	104.94	-1.7	1.0	105.44	0.5
8	104.48	-0.4	0.9	105.51	0.6
9	106.45	1.9	1.0	105.60	0.8
10	106.56	0.1	0.7	105.67	0.9
11	105.77	-0.7	1.1	105.77	1.1
12	106.33	0.5	0.7	105.82	1.1
Annual average	***105.82***	-	-	***105.82***	***1.1***
2018: 1	104.58	-1.6	-0.2	105.81	1.0
2	104.52	-0.1	0.1	105.81	0.9
3	106.08	1.5	-0.2	105.79	0.7

Note: The indices are rounded up to two decimal figures when published and percentage changes up to one decimal figure when published.

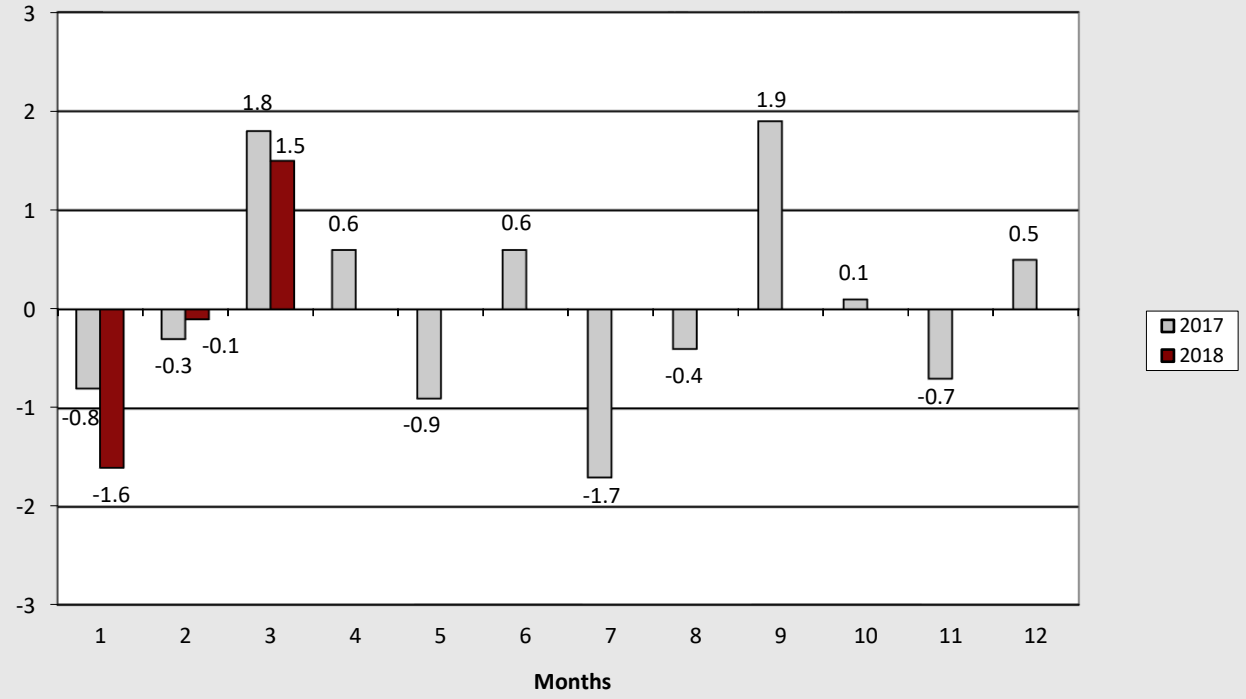
Table 4. Major price changes from index comparison March 2018 with February 2018 and their impact in the Overall CPI

Goods and services	Rate of change (%)	Impact
Fresh vegetables	-1.4	-0.02
Pork	-1.7	-0.01
Poultry	-2.2	-0.02
Fresh fish	-1.9	-0.02
Cheese	2.7	0.04
Heating oil	-0.9	-0.03
Non-durable household articles	-1.3	-0.02
Pharmaceutical products	-1.4	-0.03
Petrol	-0.7	-0.04
Passenger transport by air	6.9	0.13
Restaurants - confectioneries – cafes - buffets	0.2	0.02
Hotels - motels - inns	1.5	0.01
Other appliances and articles for personal care	-0.7	-0.02
Personal effects	2.5	0.02
Recovery of prices up to normal levels before the winter sales period	-	1.46

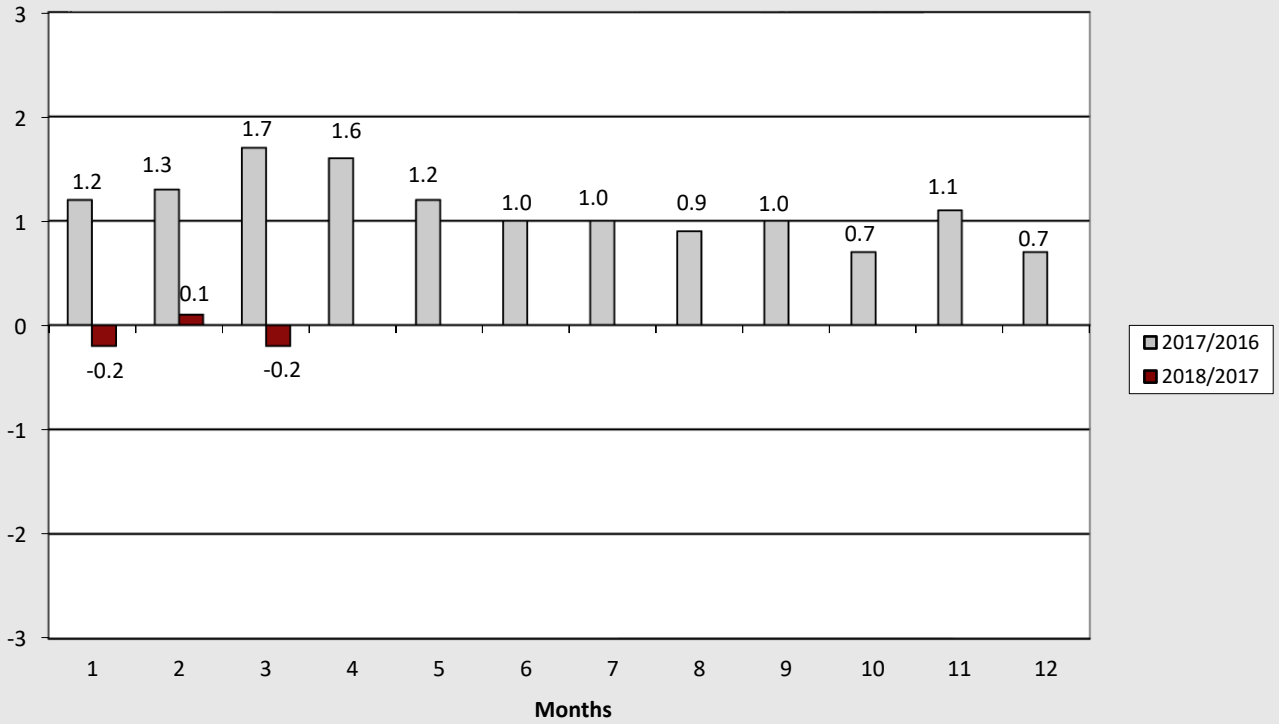
Table 5. Major price changes from index comparison March 2018 with March 2017 and their impact in the Overall CPI

Goods and services	Rate of change (%)	Impact
Bread and cereals	-0.6	-0.02
Fresh fish	-2.3	-0.02
Fresh vegetables	-8.7	-0.11
Fresh fruit	-1.8	-0.02
Cheese	1.4	0.02
Olive oil	5.0	0.06
Potatoes	-16.3	-0.07
Coffee	4.9	0.02
Milk whole fresh	1.7	0.01
Lamb and goat	-2.9	-0.01
Poultry	-2.8	-0.02
Tobacco	8.9	0.26
Clothing and footwear	-0.3	-0.03
Actual rentals paid by tenants	-4.7	-0.15
Electricity	-2.1	-0.07
Natural gas	-15.8	-0.06
Heating oil	1.5	0.04
Furniture and furnishings	-2.6	-0.01
Household textiles	-3.0	-0.02
Non-durable household articles	-2.5	-0.04
Pharmaceutical products	-0.5	-0.01
Dental services	-1.2	-0.01
Hospital and clinic services	0.7	0.02
Petrol	0.2	0.01
Maintenance and repair of personal transport equipment	-1.8	-0.01
Passenger transport by air	7.6	0.12
Telephone and telefax equipment	-7.9	0.00
Audiovisual and information processing equipment	-3.4	-0.02
Major durables for recreation and culture	-3.0	-0.01
Secondary education	0.6	0.01
Restaurants - confectioneries - cafes - buffets	0.9	0.08
Hotels - motels - inns	8.6	0.05
Other appliances and articles for personal care	-3.9	-0.10
Motor vehicle insurance	-2.9	-0.05

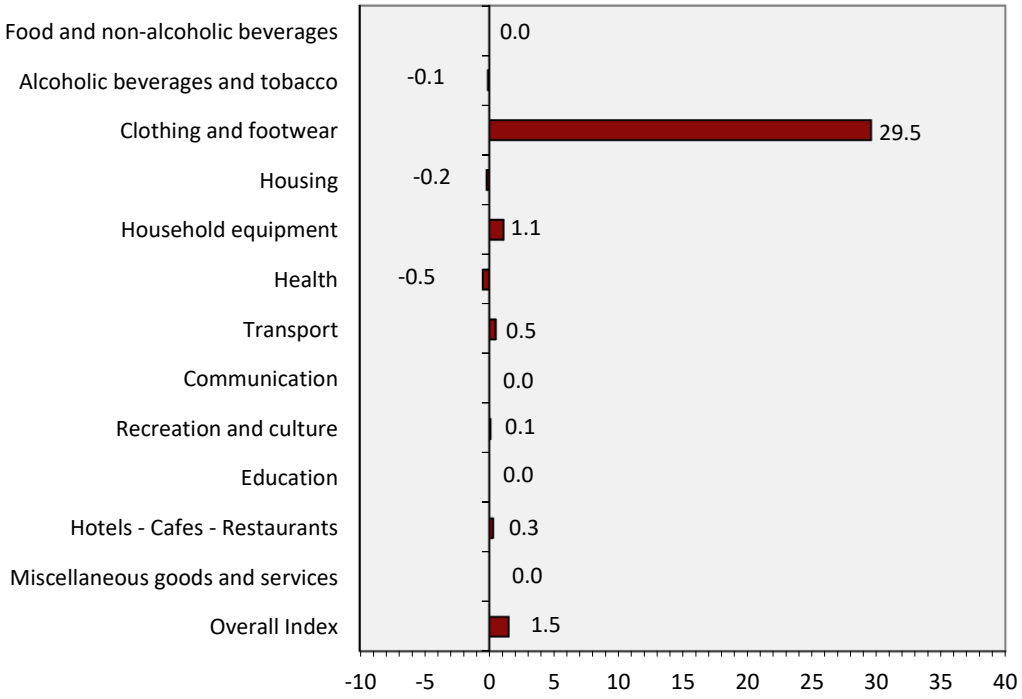
Graph 3. Monthly rates of change (%) of the overall CPI, 2017 and 2018



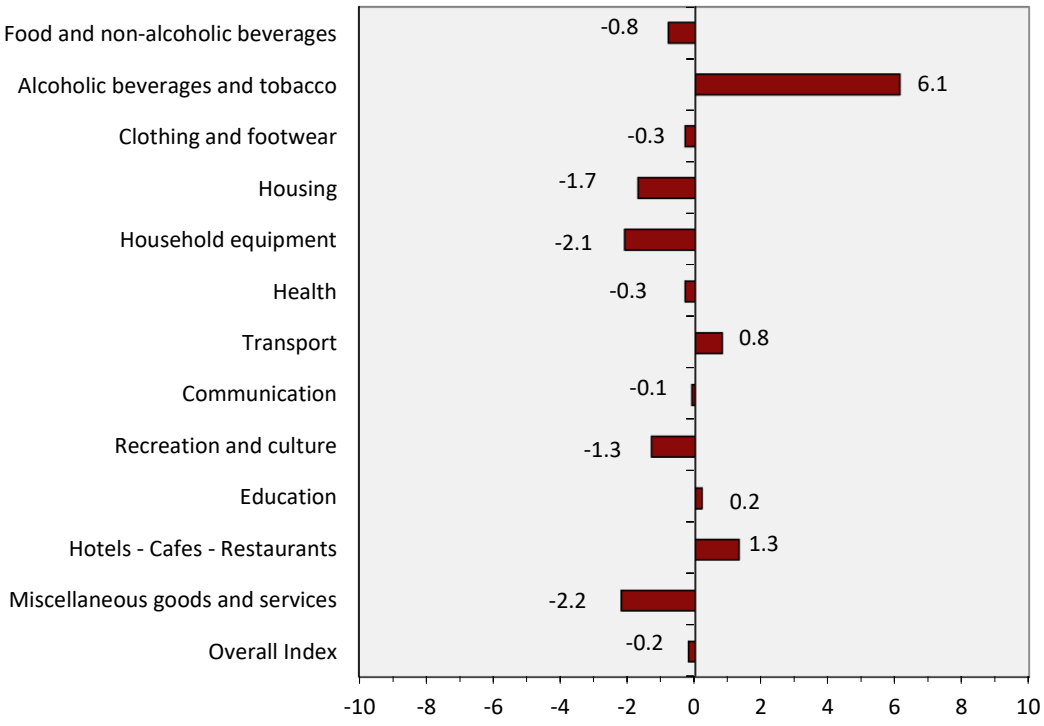
Graph 4. Annual rates of change (%) of the overall CPI, 2017 and 2018



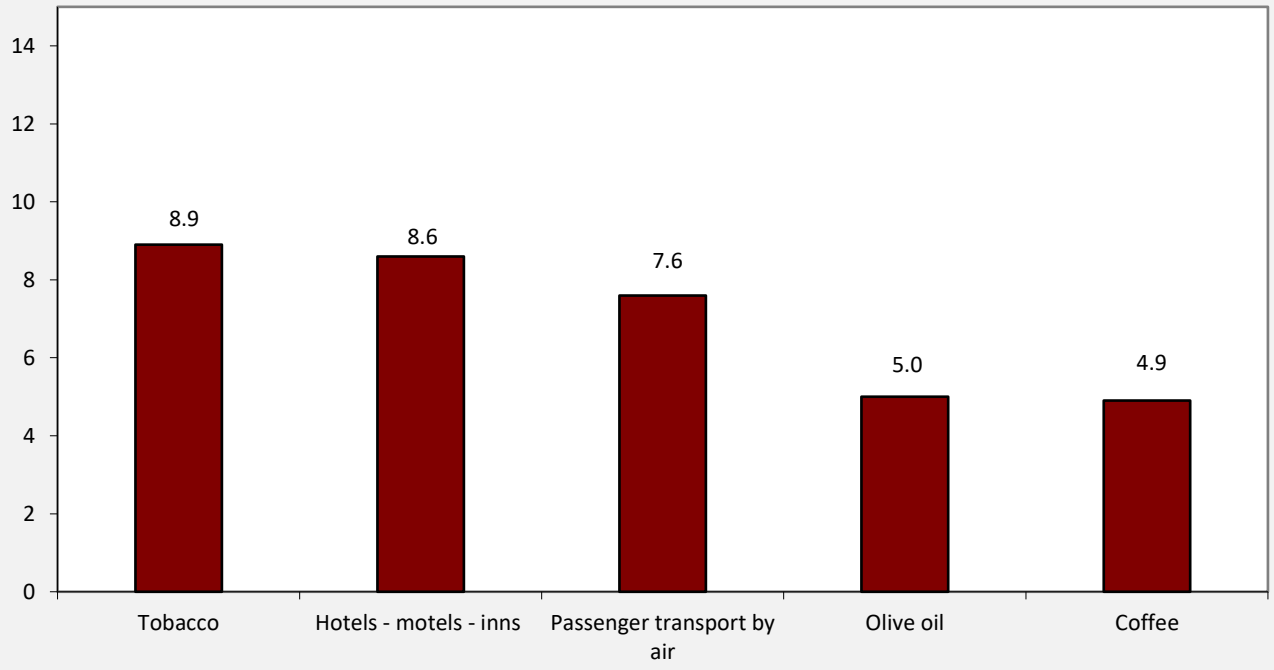
Graph 5. Monthly rates of change (%) of CPI between March 2018 and February 2018



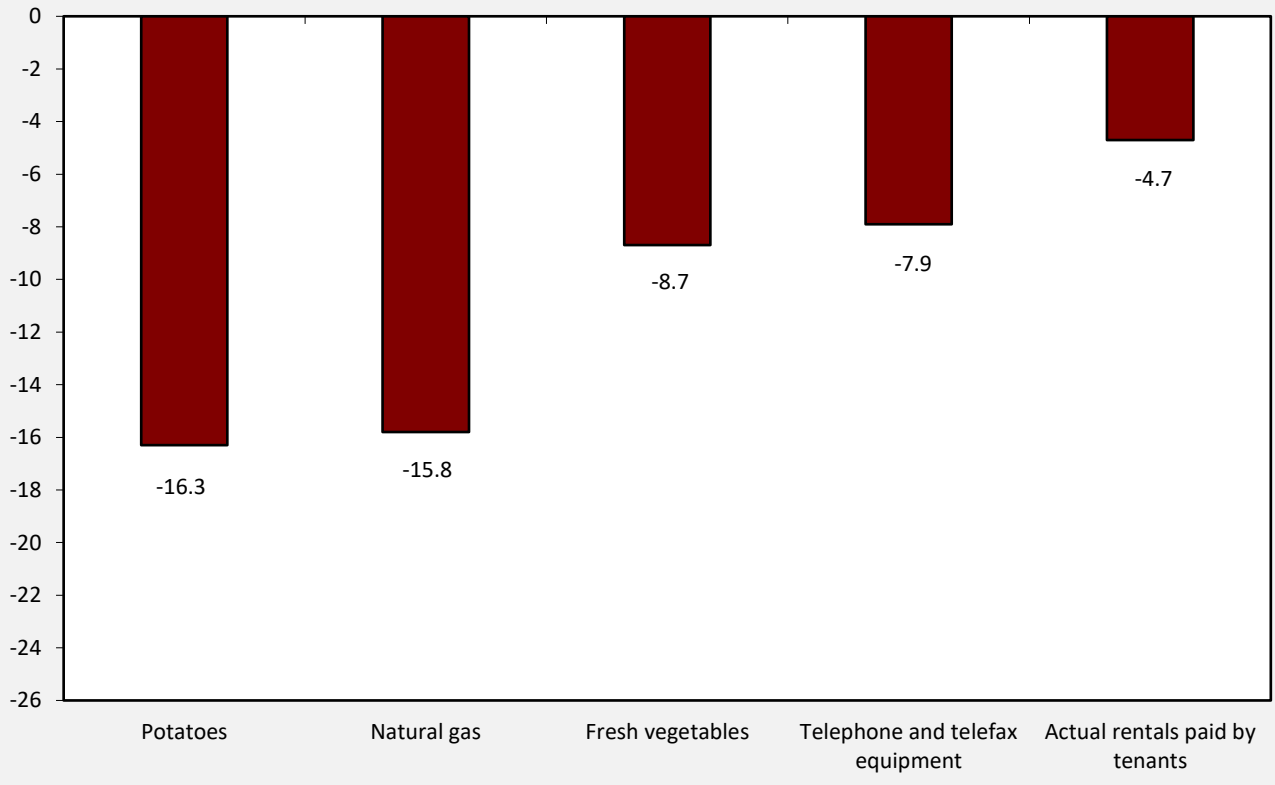
Graph 6. Annual rates of change (%) of CPI between March 2018 and March 2017



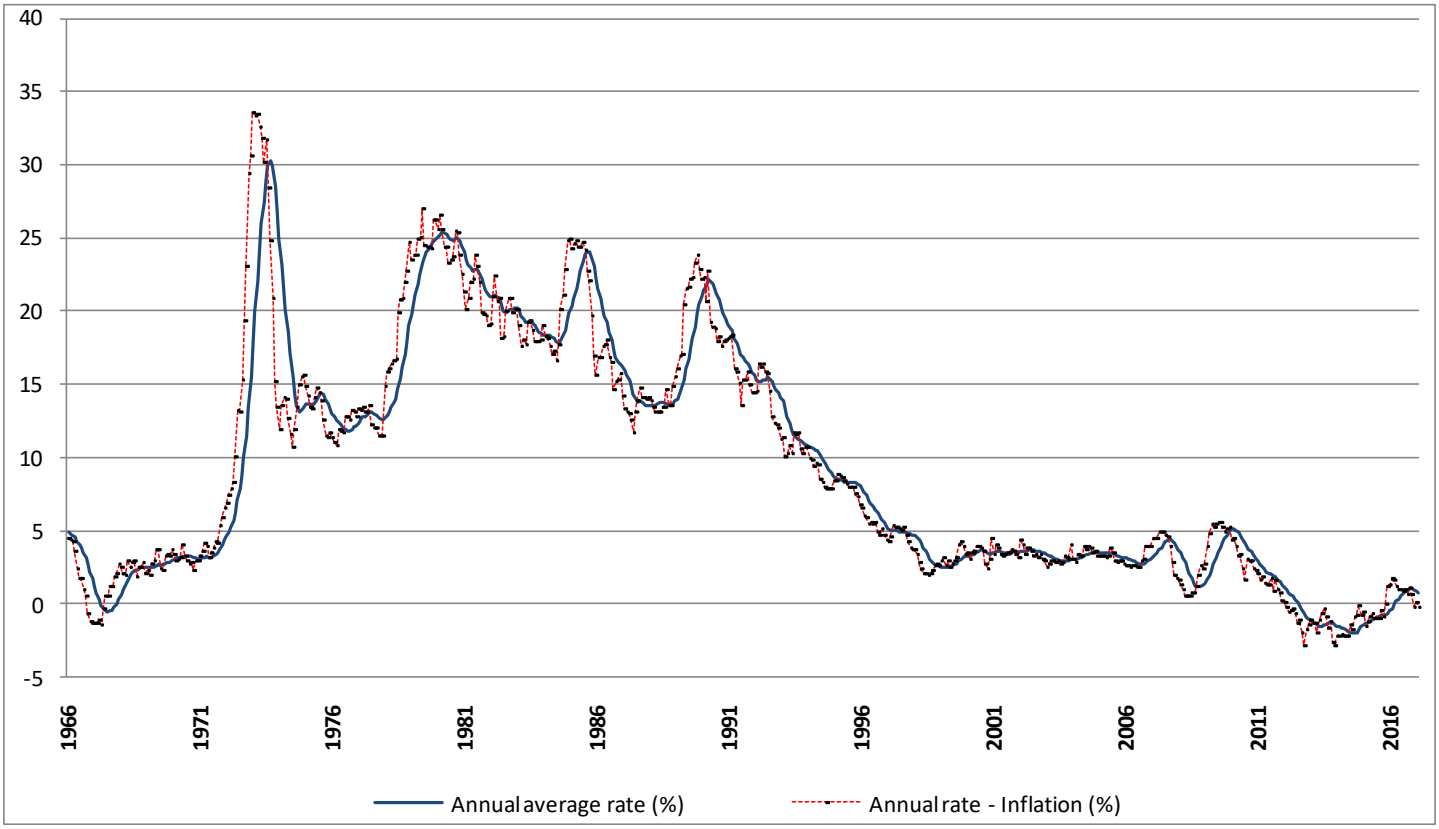
Graph 7. CPI highest annual increases (%)



Graph 8. CPI highest annual decreases (%)



Graph 9. Historical evolution of CPI, 1967 - 2018



METHODOLOGICAL NOTES

Generally The Consumer Price Index (CPI) is compiled by the Hellenic Statistical Authority (ELSTAT) since 1959. Until 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.

Purpose of the index The purpose of the CPI is to measure the general level of prices of goods and services purchased by the average Greek household.

Legal basis Law 3832/2010.

Reference period Month.

Base December of the previous year.

Reference year 2009=100.0.

Chain linking Index 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.

Geographical and population coverage of the CPI The CPI refers to the whole country and covers the resident households of the territory excluding collective households (hospitals, homes for the elderly, boarding houses, prisons, etc.) and non-resident households (tourists) in the country.

Classification of items 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.

Weights of items 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.

Price collection Cities 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.

Population weights 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.

Selection of items The composition of the "household basket" 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.

Price collection-Outlets 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 by external price collectors, hired on a temporary basis. They pay a visit to the selected outlets within a specific time period of a month (monthly prices) or on a specific day of the week (weekly prices). The collected prices correspond to the prices actually faced by the consumer.

Specification-Substitution of items 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 good products (such as brand, weight, package etc), in order to avoid any price variations attributable to differences in the specification. Once a specified item (good or service) is no longer available in the market or has ceased to be important, as regards consumption, it is substituted by a newly specified item, which has taken its place in the market.

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 following formula:

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

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 published CPI time series (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).