HELLENIC REPUBLIC HELLENIC STATISTICAL AUTHORITY

PRESS RELEASE

## CONSUMER PRICE INDEX: May 2020, annual inflation -1.1%

The evolution of the Consumer Price Index (CPI) of May 2020 (reference year 2009=100.0) is depicted as follows:

The CPI in May 2020 compared with May 2019, decreased by 1.1%. In May 2019, the annual rate of change of the CPI was 0.2% (Table 2).

The CPI in May 2020 compared with April 2020, decreased by 0.8%. In May 2019, the monthly rate of change of the CPI was -1.1% (Table 1).

The average CPI for the twelve - month period from June 2019 to May 2020, compared with the corresponding index for the period June 2018 to May 2019 decreased by 0.1%. The annual rate of change of the average CPI between the twelve - month period June 2018 to May 2019 in comparison to the period June 2017 to May 2018 was 0.9% (Table 3).

Graph 1. Annual and annual average rates of change (%) of CPI
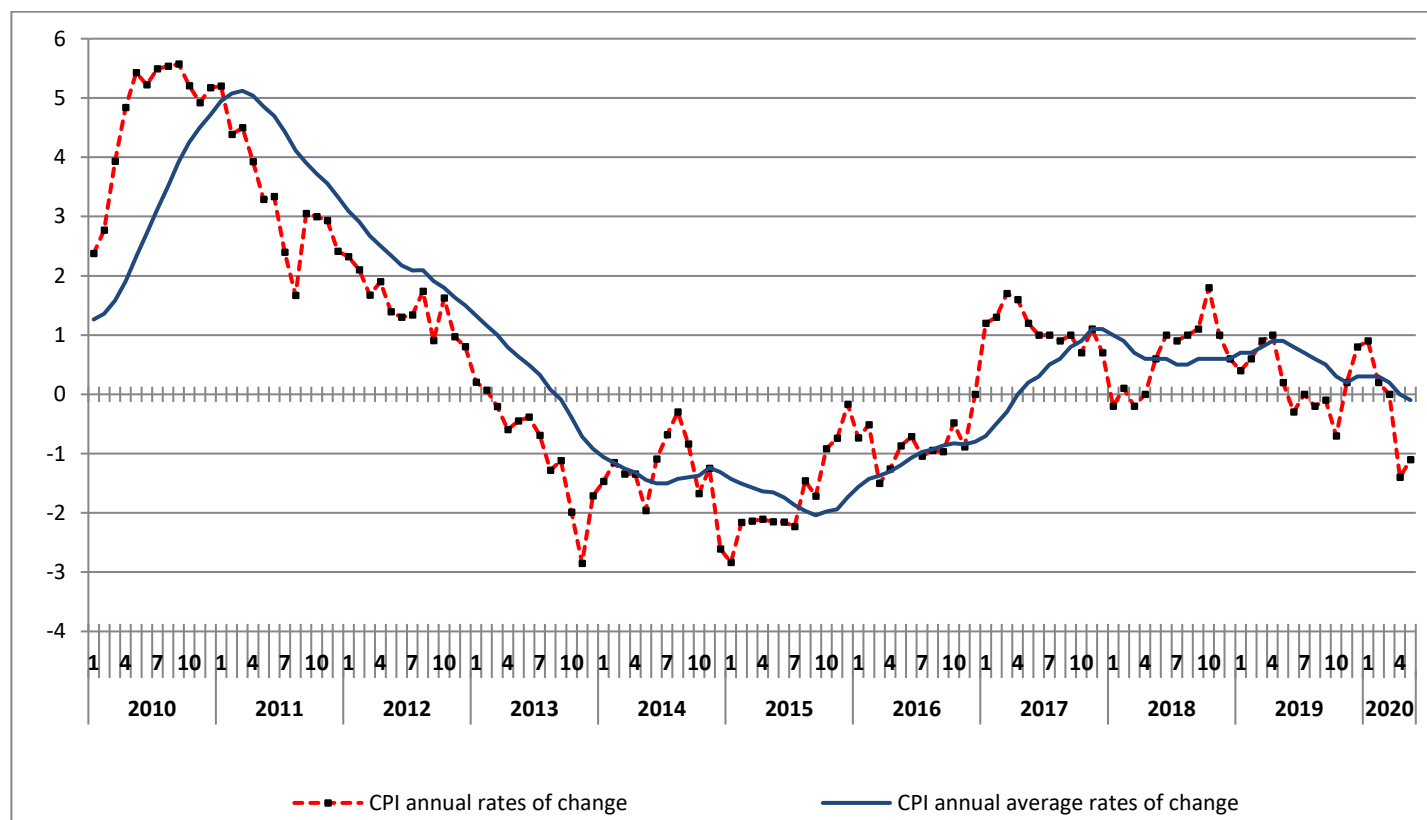
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Analysis of changes of the CPI: May 2020

The 0.8% decrease of the Overall CPI in May 2020, compared with the corresponding index in April 2020 is, mainly, due to the changes in the groups of goods and services as follows:

1. **A decrease of:**

- 0.5% in the group <u>Food and non-alcoholic beverages</u>, due to the decrease, mainly, in the prices of: *pork, poultry, fresh fish, olive oil, fresh vegetables, potatoes.* This decrease was partly offset by the increase, mainly, in the prices of: *cheese, fresh fruit.*
- 6.7% in <u>Clothing and footwear</u>, due to the 10-day period of summer sales.
- 1.1% in the group <u>Housing</u>, due to the decrease, mainly, in the prices of: *heating oil, natural gas.*
- 1.6% in the group <u>Transport</u>, due to the decrease, mainly, in the prices of: *fuels and lubricants, tickets for passenger transport by air.*

2. **An increase of:**

- 0.5% in the group <u>Alcoholic beverages and tobacco</u>, due to the increase, mainly, in the prices of *alcoholic beverages (not served).*
- 0.8% in the group <u>Hotel-Cafés-Restaurants</u>, due to the increase, mainly, in the prices of *hotels-motels-inns.*

The 1.1% decrease of the Overall CPI in May 2020, compared with the corresponding index in May 2019 is, mainly, due to the changes in the groups of goods and services as follows:

1. A decrease of:

- 3.9% in the group <u>Housing</u>, due to the decrease, mainly, in the prices of: *heating oil, natural gas.* This decrease was partly offset by the increase, mainly, in the prices of *electricity*.
- 0.8% in the group <u>Household equipment</u>, due to the decrease, mainly, in the prices of: *household textiles, household appliances and repair, non-durable household articles.*
- 7.0% in the group <u>Transport</u>, due to the decrease, mainly, in the prices of *fuels and lubricants.* This decrease was partly offset by the increase, mainly, in the prices of: *new motorcars, tickets for passenger transport by air.*
- 2.2% in the group <u>Communication</u>, due to the decrease, mainly, in the prices of *telephone services*.
- 0.9% in the group <u>Recreation and culture</u>, due to the decrease, mainly, in the prices of: *audiovisual and information processing equipment, cultural services.*
- 0.8% in the group <u>Miscellaneous goods and services</u>, due to the decrease, mainly, in the prices of *other appliances and articles for personal care*. This decrease was partly offset by the increase, mainly, in the prices of *motor vehicle insurance*.

2. An increase of:

- 1.5% in the group <u>Food and non-alcoholic beverages</u> due to the increase, mainly, in the prices of: *rice, pasta, pork, lamb and goat, dried salted or smoked meat, fresh whole milk, yoghurt, fresh fruit, fresh vegetables*. This increase was partly offset by the decrease, mainly, in the prices of: *bread*, *other bakery products, fish, olive oil, potatoes, sugar-chocolates-sweets-ice creams, other food, coffee-cocoa-tea, fruit juices.*
- 0.2% in the group <u>Alcoholic beverages and tobacco</u>, due to the increase, mainly, in the prices of *alcoholic beverages (not served)*.
- 3.4% in <u>Clothing and footwear</u>, due to the increase in the prices of articles of clothing and footwear.
- 1.4% in the group <u>Health</u>, due to the increase, mainly, in the prices of *pharmaceutical products.*
- 0.5% in the group <u>Education</u>, due to the increase, mainly, in the prices of *fees of pre-primary and primary education*.
- 0.2% in the group <u>Hotel-Cafés-Restaurants</u>, due to the increase, mainly, in the prices of *restaurants-confectioneries-cafés-buffets.*

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

Main groups of goods and services	Weights HBS 2018 (‰)	2020 May	2020 April	Rate of change %	2019 May	2019 April	Rate of change %
1. Food & non-alcoholic beverages	202.67	106.95	107.50	-0.5	105.39	106.45	-1.0
2. Alcoholic beverages and tobacco	37.07	148.99	148.18	0.5	148.69	148.14	0.4
3. Clothing and footwear	65.92	96.38	103.34	-6.7	93.18	103.06	-9.6
4. Housing	141.50	113.90	115.14	-1.1	118.53	120.81	-1.9
5. Household equipment	43.08	86.56	86.47	0.1	87.23	87.87	-0.7
6. Health	76.74	98.90	98.88	0.0	97.51	97.51	0.0
7. Transport	144.01	118.33	120.24	-1.6	127.22	128.06	-0.7
8. Communication	42.41	104.91	104.79	0.1	107.31	107.26	0.0
9. Recreation and culture	39.38	86.64	86.70	-0.1	87.39	87.86	-0.5
10. Education	32.24	88.98	88.98	0.0	88.51	88.51	0.0
11. Hotels-Cafés-Restaurants	109.23	110.26	109.42	0.8	110.05	108.89	1.1
12. Miscellaneous goods and services	65.75	90.61	90.70	-0.1	91.34	91.40	-0.1
Overall Index	**1000.00**	**105.73**	**106.59**	**-0.8**	**106.95**	**108.14**	**-1.1**

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

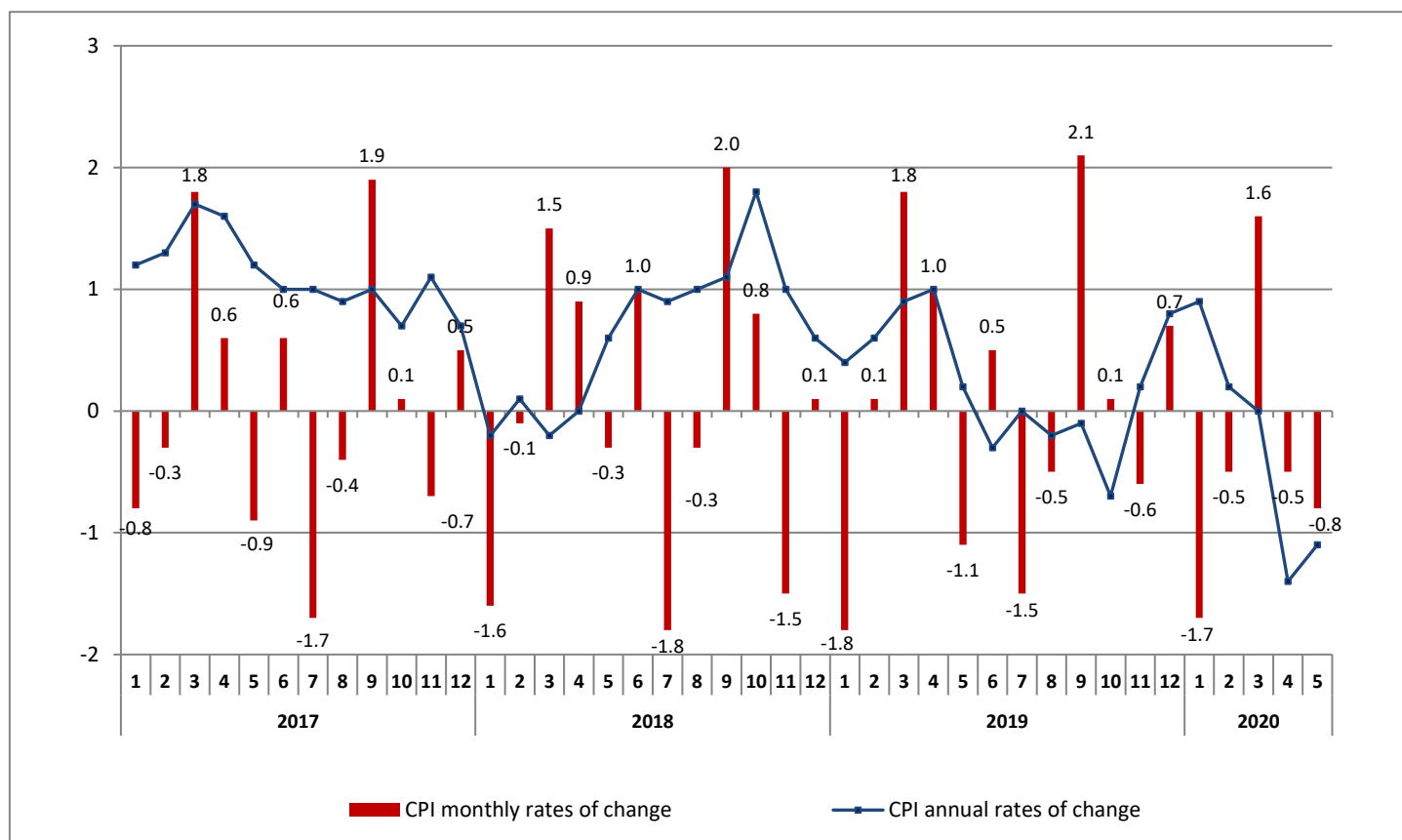## Graph 2. Annual and monthly rates of change (%) of CPI

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

I: May 2020/2019

Main groups of goods and services	May		Rate of change (%)	Impact
	2020	2019		
1. Food and non-alcoholic beverages	106.95	105.39	1.5	0.3023
2. Alcoholic beverages and tobacco	148.99	148.69	0.2	0.0064
3. Clothing and footwear	96.38	93.18	3.4	0.1919
4. Housing	113.90	118.53	-3.9	-0.5500
5. Household equipment	86.56	87.23	-0.8	-0.0329
6. Health	98.90	97.51	1.4	0.1054
7. Transport	118.33	127.22	-7.0	-1.0227
8. Communication	104.91	107.31	-2.2	-0.0965
9. Recreation and culture	86.64	87.39	-0.9	-0.0341
10. Education	88.98	88.51	0.5	0.0175
11. Hotels-Cafés-Restaurants	110.26	110.05	0.2	0.0236
12. Miscellaneous goods and services	90.61	91.34	-0.8	-0.0529
Overall Index	**105.73**	**106.95**	**-1.1**	

II: May 2019/2018

Main groups of goods and services	May		Rate of change (%)	Impact
	2019	2018		
1. Food and non-alcoholic beverages	105.39	104.92	0.5	-0.2046
2. Alcoholic beverages and tobacco	148.69	147.23	1.0	0.0145
3. Clothing and footwear	93.18	92.68	0.5	-0.6137
4. Housing	118.53	119.34	-0.7	-0.2642
5. Household equipment	87.23	88.95	-1.9	-0.0312
6. Health	97.51	96.80	0.7	0.0000
7. Transport	127.22	125.80	1.1	-0.0970
8. Communication	107.31	103.76	3.4	0.0020
9. Recreation and culture	87.39	88.97	-1.8	-0.0208
10. Education	88.51	89.22	-0.8	0.0000
11. Hotels-Cafés-Restaurants	110.05	109.30	0.7	0.1127
12. Miscellaneous goods and services	91.34	92.68	-1.4	-0.0043
Overall Index	**106.95**	**106.70**	**0.2**	

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 %
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
4	107.05	0.9	0.0	105.80	0.6
5	106.70	-0.3	0.6	105.85	0.6
6	107.76	1.0	1.0	105.94	0.6
7	105.84	-1.8	0.9	106.01	0.5
8	105.49	-0.3	1.0	106.09	0.5
9	107.61	2.0	1.1	106.19	0.6
10	108.44	0.8	1.8	106.35	0.6
11	106.81	-1.5	1.0	106.43	0.6
12	106.92	0.1	0.6	106.48	0.6
Annual average	***106.48***	-	-	***106.48***	***0.6***
2019: 1	105.04	-1.8	0.4	106.52	0.7
2	105.17	0.1	0.6	106.58	0.7
3	107.08	1.8	0.9	106.66	0.8
4	108.14	1.0	1.0	106.75	0.9
5	106.95	-1.1	0.2	106.77	0.9
6	107.46	0.5	-0.3	106.75	0.8
7	105.89	-1.5	0.0	106.75	0.7
8	105.31	-0.5	-0.2	106.74	0.6
9	107.53	2.1	-0.1	106.73	0.5
10	107.67	0.1	-0.7	106.66	0.3
11	107.05	-0.6	0.2	106.68	0.2
12	107.76	0.7	0.8	106.75	0.3
Annual average	***106.75***	-	-	***106.75***	***0.3***
2020: 1	105.94	-1.7	0.9	106.83	0.3
2	105.41	-0.5	0.2	106.85	0.3
3	107.08	1.6	0.0	106.85	0.2
4	106.59	-0.5	-1.4	106.72	0.0
5	105.73	-0.8	-1.1	106.62	-0.1

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 between May 2020 and April 2020 and their impact on the Overall CPI

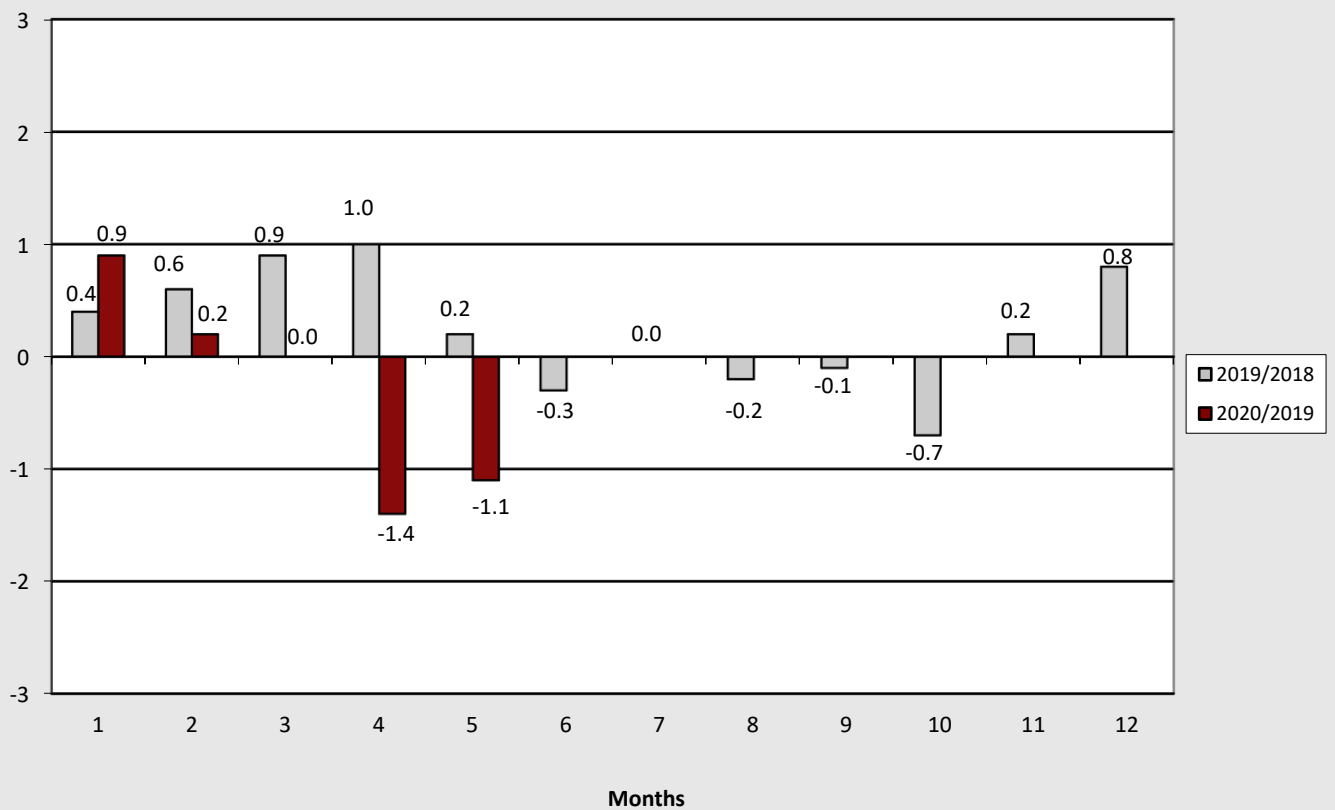| Goods and services	Rate of change (%)	Impact
Olive oil	-1.8	-0.01
Fresh fish	-3.0	-0.03
Fresh fruit	3.3	0.05
Fresh vegetables	-7.4	-0.11
Potatoes	-4.2	-0.02
Pork	-1.4	-0.01
Poultry	-1.2	-0.01
Cheese	0.8	0.01
Alcoholic beverages (not served)	1.8	0.02
Natural gas	-8.7	-0.02
Heating oil	-7.3	-0.12
Fuels and lubricants	-2.4	-0.12
Passenger transport by air	-6.1	-0.11
Hotels-motels-inns	13.5	0.09
10-day summer sales	-	-0.45

Table 5. Major price changes from index comparison between May 2020 and May 2019 and their impact on the Overall CPI

Goods and services	Rate of change (%)	Impact
Olive oil	-5.7	-0.05
Fresh whole milk	3.8	0.03
Fresh fruit	28.6	0.36
Fresh vegetables	4.0	0.05
Yoghurt	6.9	0.03
Sugar-chocolates-sweets-ice creams	-2.9	-0.03
Other food	-2.6	-0.01
Coffee-cocoa-tea	-6.4	-0.03
Fruit juices	-5.3	-0.01
Fish	-2.2	-0.03
Potatoes	-15.8	-0.08
Rice	10.0	0.02
Pasta	5.0	0.02
Bread	-1.2	-0.02
Other bakery products	-4.0	-0.02
Lamb and goat	3.2	0.01
Pork	4.3	0.04
Dried salted or smoked meat	6.4	0.03
Clothing and footwear	3.4	0.19
Heating oil	-30.6	-0.68
Electricity	6.2	0.22
Natural gas	-30.0	-0.10
Non-durable household articles	-0.6	-0.01
Household textiles	-2.1	-0.01
Household appliances and repair	-1.9	-0.01
Pharmaceutical products	4.0	0.10
Fuels and lubricants	-18.4	-1.11
New motorcars	1.4	0.02
Passenger transport by air	3.3	0.06
Telephone services	-2.2	-0.09
Audiovisual and information processing equipment	-3.6	-0.02
Cultural services	-1.5	-0.01
Pre-primary and primary education	2.2	0.02
Restaurants-confectioneries-cafes-buffets	0.2	0.02
Other appliances and articles for personal care	-2.6	-0.07
Motor vehicle insurance	1.1	0.02

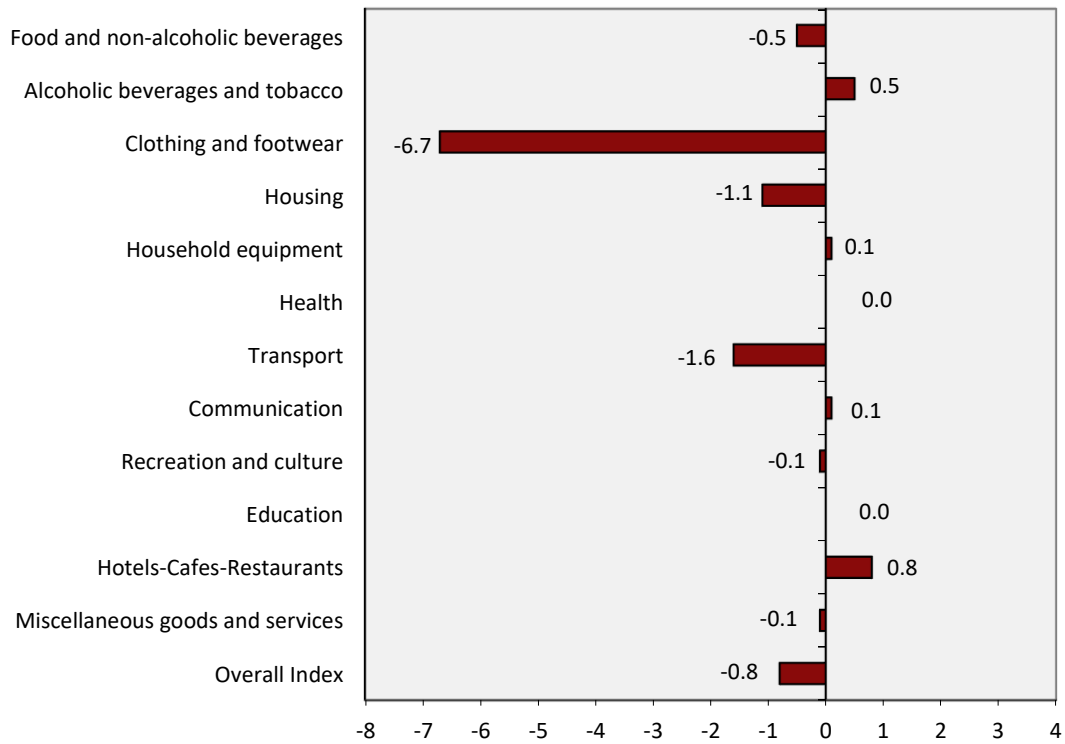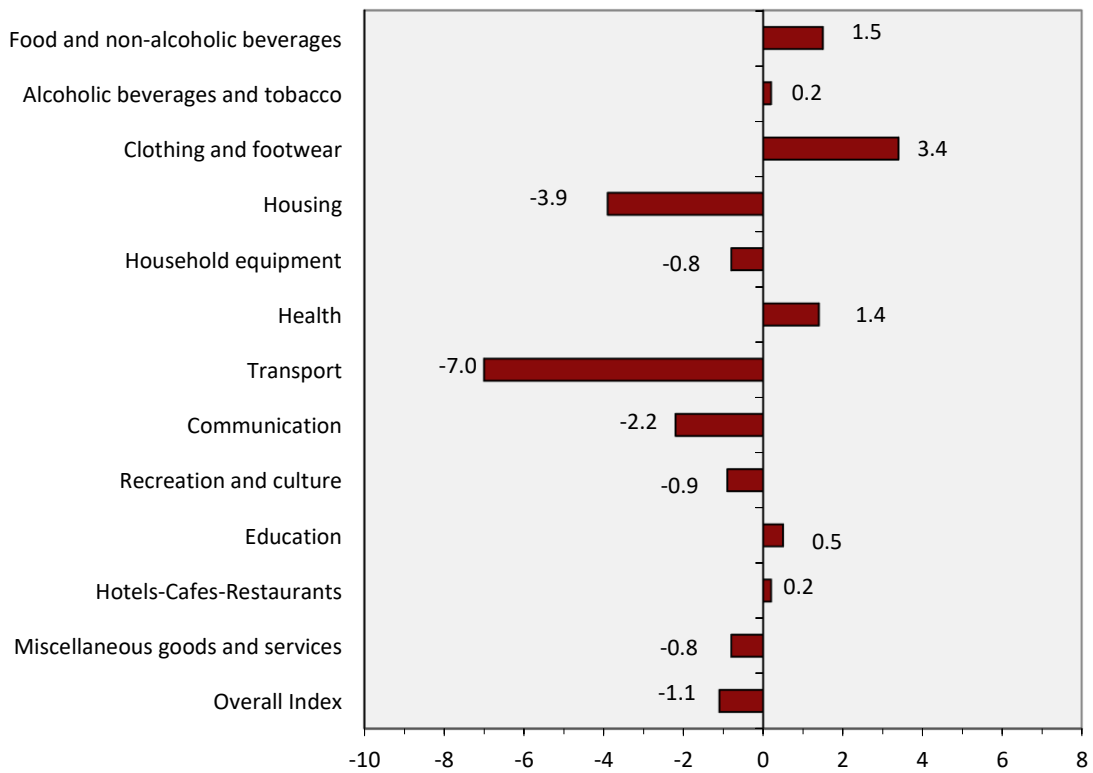**Graph 3. Monthly rates of change (%) of the overall CPI, 2019 and 2020**
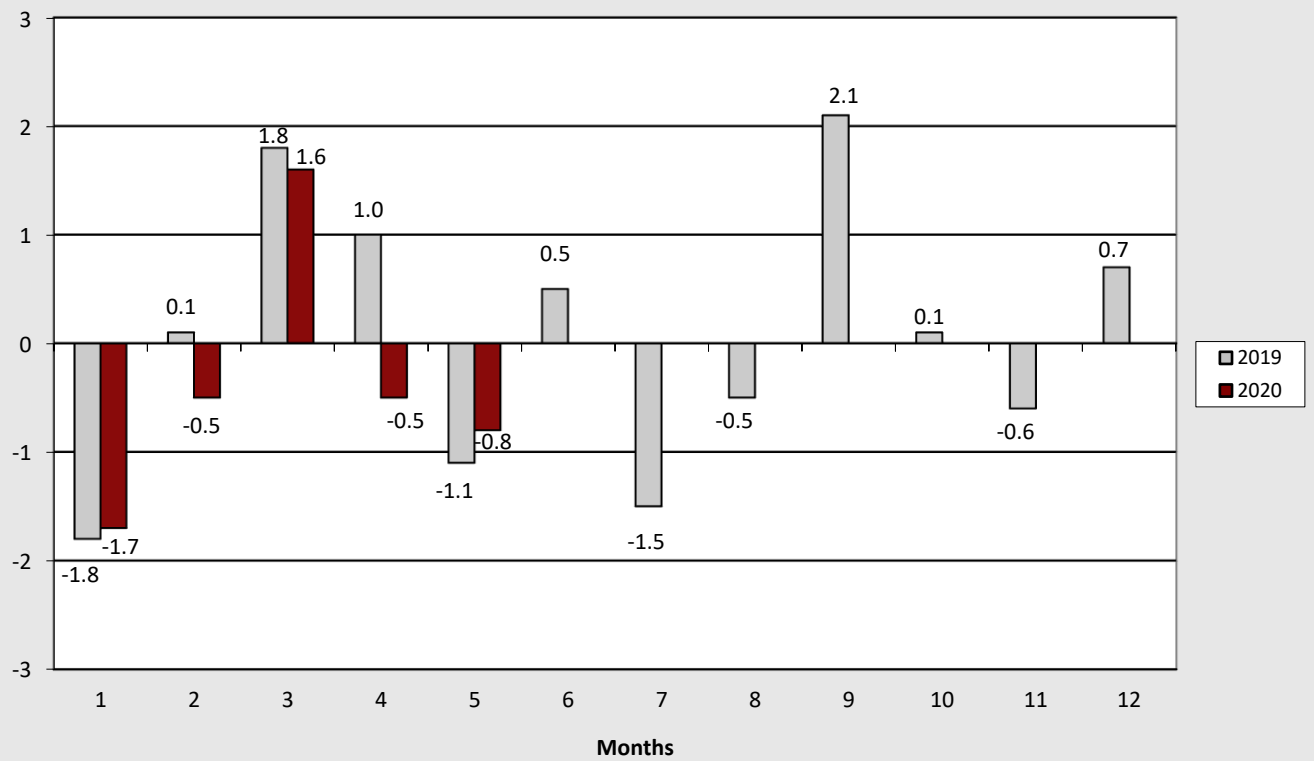
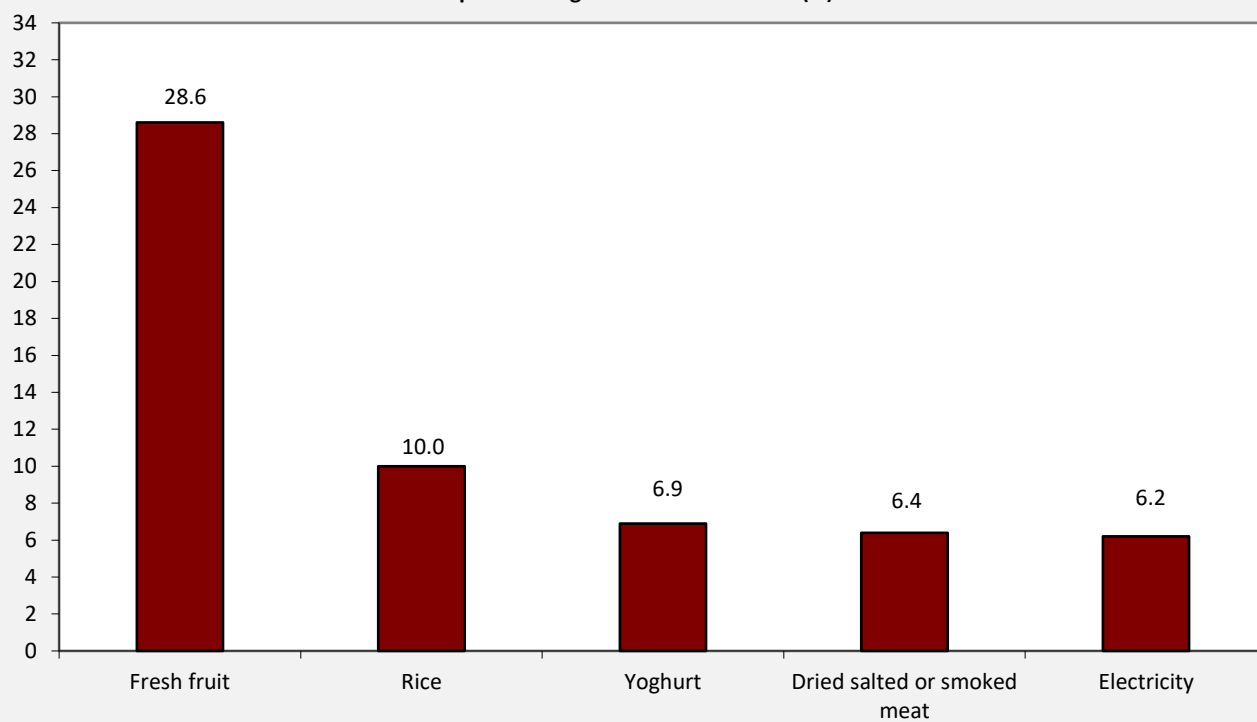**Graph 4. Annual rates of change (%) of the overall CPI, 2019 and 2020**

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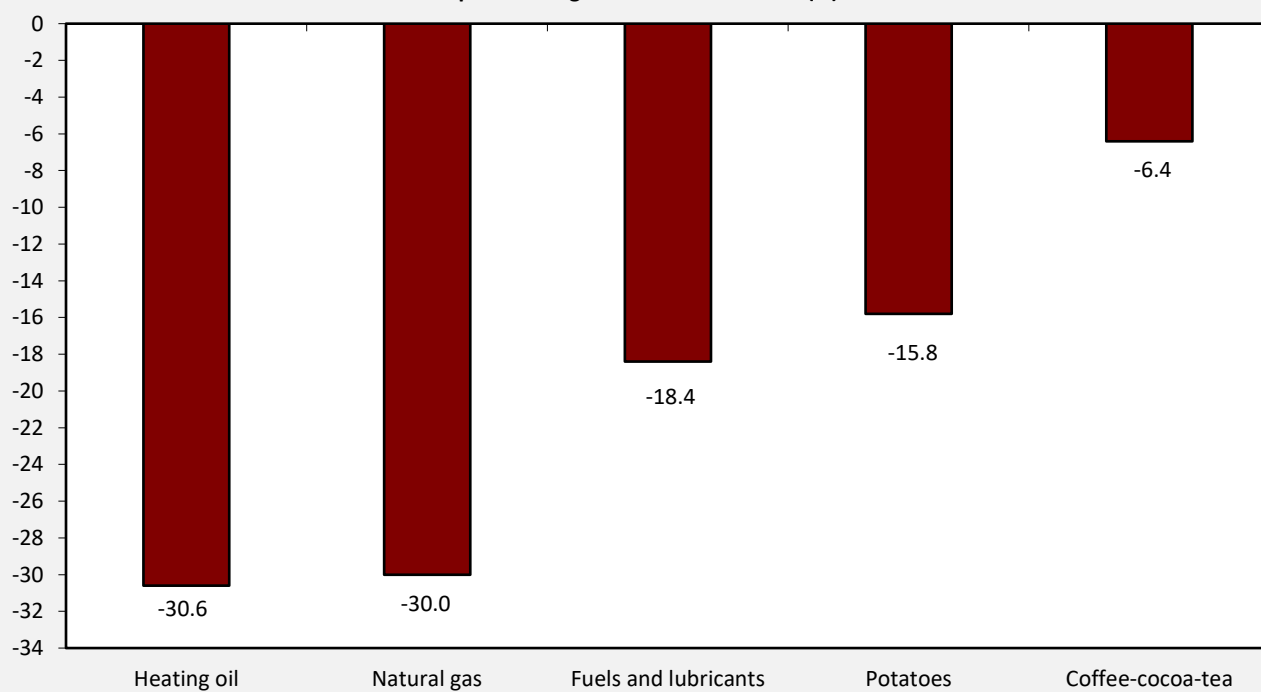**Graph 5. Monthly rates of change (%) of CPI between May 2020 and April 2020**

Category	Value
Food and non-alcoholic beverages	-0.5
Alcoholic beverages and tobacco	0.5
Clothing and footwear	-6.7
Housing	-1.1
Household equipment	0.1
Health	0.0
Transport	-1.6
Communication	0.1
Recreation and culture	-0.1
Education	0.0
Hotels-Cafes-Restaurants	0.8
Miscellaneous goods and services	-0.1
Overall Index	-0.8

Graph 6. Annual rates of change (%) of CPI between May 2020 and May 2019

Category	Value
Food and non-alcoholic beverages	1.5
Alcoholic beverages and tobacco	0.2
Clothing and footwear	3.4
Housing	-3.9
Household equipment	-0.8
Health	1.4
Transport	-7.0
Communication	-2.2
Recreation and culture	-0.9
Education	0.5
Hotels-Cafes-Restaurants	0.2
Miscellaneous goods and services	-0.8
Overall Index	-1.1

Graph 7. CPI highest annual increases (%)

Category	Value
Fresh fruit	28.6
Rice	10.0
Yoghurt	6.9
Dried salted or smoked meat	6.4
Electricity	6.2

Graph 8. CPI highest annual decreases (%)

Category	Value
Heating oil	-30.6
Natural gas	-30.0
Fuels and lubricants	-18.4
Potatoes	-15.8
Coffee-cocoa-tea	-6.4

Graph 9. Historical evolution of CPI, 1969 – 2020

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 the 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).