



PRESS RELEASE

CONSUMER PRICE INDEX: September 2020, annual inflation -2.0%

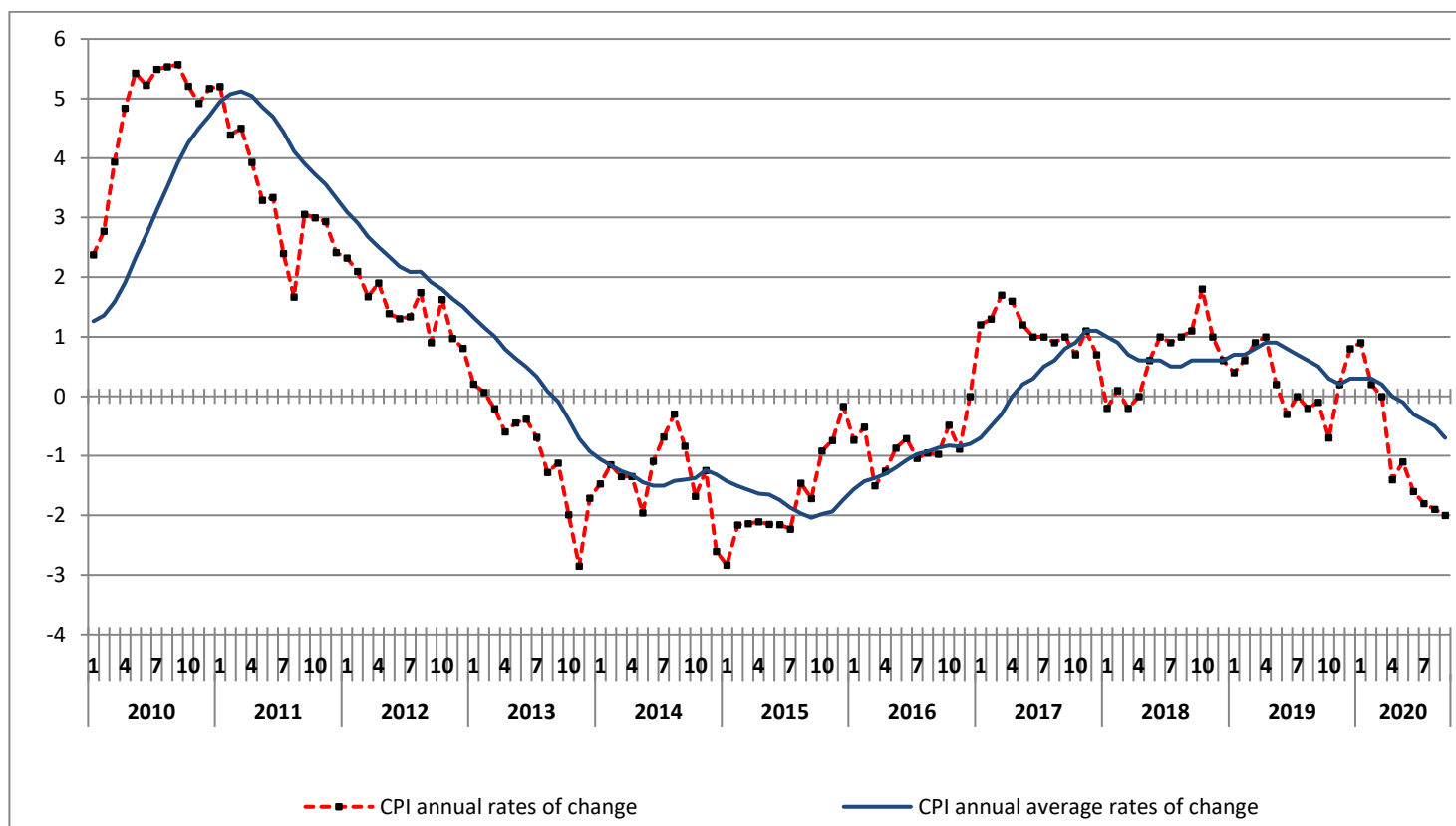
The evolution of the Consumer Price Index (CPI) of September 2020 (reference year 2009=100.0) is depicted as follows:

The CPI in September 2020 compared with September 2019, decreased by 2.0%. In September 2019, the annual rate of change of the CPI was -0.1% (Table 2).

The CPI in September 2020 compared with August 2020, increased by 2.0%. In September 2019, the monthly rate of change of the CPI was 2.1% (Table 1).

The average CPI for the twelve - month period from October 2019 to September 2020, compared with the corresponding index for the period October 2018 to September 2019 decreased by 0.7%. The annual rate of change of the average CPI between the twelve - month period October 2018 to September 2019 in comparison to the period October 2017 to September 2018 was 0.5% (Table 3).

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



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Analysis of changes of the CPI: September 2020

I. Monthly rates of change: September 2020 compared with August 2020 (Tables 1, 4)

The 2.0 % increase of the Overall CPI in September 2020, compared with the corresponding index in August 2020 is, mainly, due to the changes in the groups of goods and services as follows:

2. An increase of:

- 1.1% in the group Food and non-alcoholic beverages due to the increase, mainly, in the prices of: *bread and cereals, lamb and goat, poultry, fresh fish, cheese, oils and fats, fresh fruits, fresh vegetables*. This increase was partly offset by the decrease, mainly, in the prices of: *beef, fresh whole milk*.
- 37.3% in the group Clothing and footwear, due to the recovery of prices up to normal levels as before the summer sales period.
- 0.1% in the group Housing, due to the increase, mainly, in the prices of *natural gas*.
- 1.1% in the group Household equipment, due to the recovery of prices up to normal levels as before the summer sales period.
- 0.5% in the group Miscellaneous goods and services, due to the increase, mainly, in the prices of *other appliances and articles for personal care* and the recovery of *other personal effects* prices up to normal levels as before the summer sales period.

2. A decrease of:

- 0.3% in the group Health, due to the decrease, mainly, in the prices of *pharmaceutical products*.
- 0.8% in the group Transport, due to the decrease, mainly, in the prices of *tickets for passenger transport by air, fuels and lubricants*. This decrease was partly offset by the increase, mainly, in the prices of *new motorcars*.
- 0.2% in the group Communication, due to the decrease, mainly, in the prices of *telephone services*.

II. Annual rates of change: September 2020 compared with September 2019 (Tables 2, 5)

The 2.0 % decrease of the Overall CPI in September 2020, compared with the corresponding index in September 2019 is, mainly, due to the changes in the groups of goods and services as follows:

1. A decrease of:

- 6.0 % in the group Housing, due to the decrease, mainly, in the prices of: *heating oil, electricity, solid fuels, natural gas*.
- 1.0% in the group Household equipment, due to the decrease, mainly, in the prices of *household textiles, household appliances and repair*.
- 1.2% in the group Health, due to the decrease, mainly, in the prices of *pharmaceutical products*. This decrease was partly offset by the increase, mainly, in the prices of *medical, dental and paramedical services*.
- 7.9% in the group Transport, due to the decrease, mainly, in the prices of: *fuels and lubricants, tickets for passenger transport by air, tickets for passenger transport by railway, tickets of passenger transport by road, tickets of combined passenger transport*. This decrease was partly offset by the increase, mainly, in the prices of *new motorcars*.
- 2.4% in the group Communication, due to the decrease, mainly, in the prices of *telephone services*.
- 1.2% in the group Recreation and culture, due to the decrease, mainly, in the prices of: *audiovisual and information processing equipment, small recreational items-flowers-pets*.
- 1.0% in the group Hotel-Cafés-Restaurants, due to the decrease, mainly, in the prices of *hotels-motels-inns*. This decrease was partly offset by the increase, mainly, in the prices of *restaurants-confectioneries-cafés-buffets*.
- 1.5% in the group Miscellaneous goods and services, due to the decrease, mainly, in the prices of: *other appliances and articles for personal care, other personal effects*.

2. An increase of:

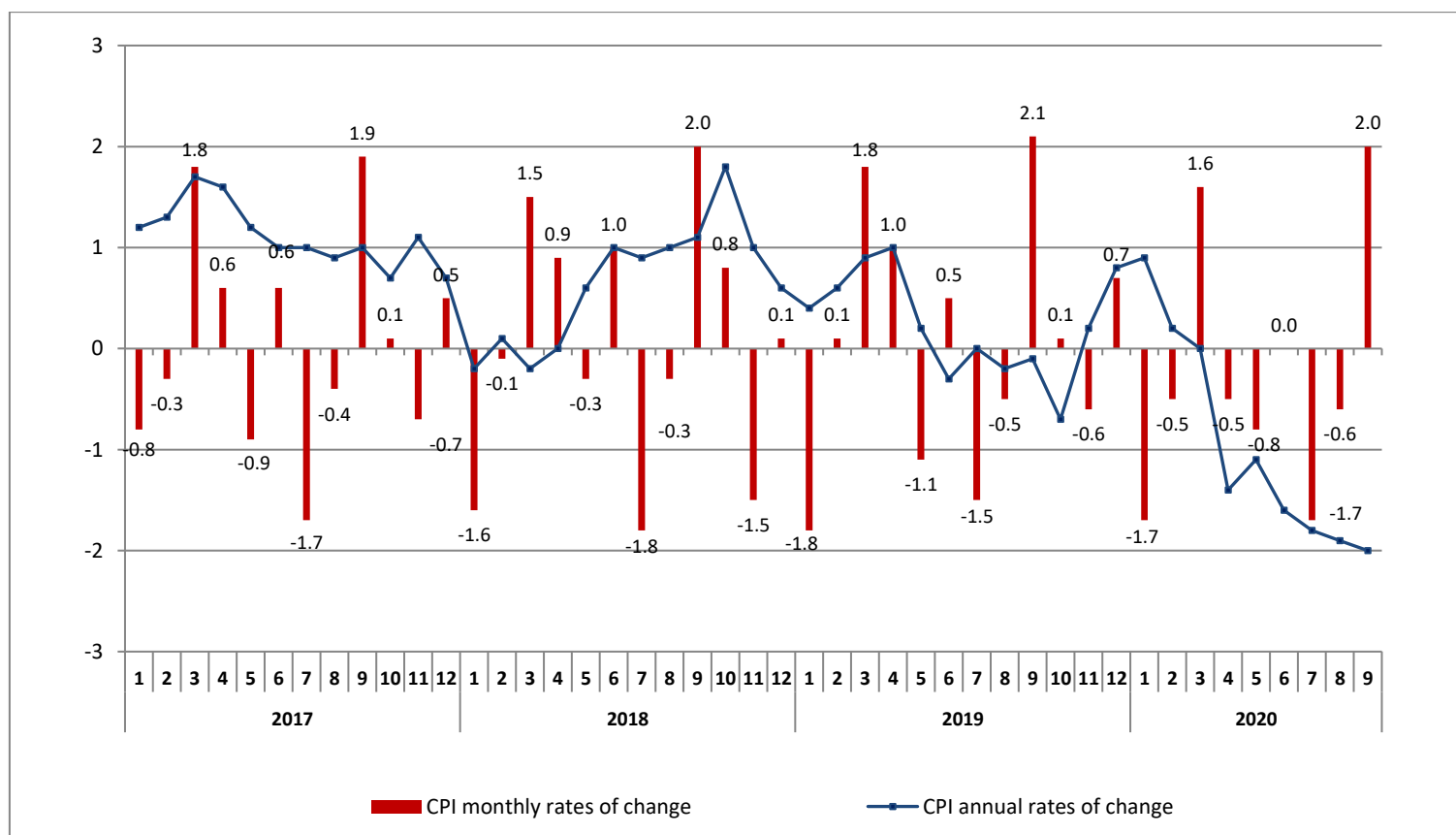
- 2.4% in the group Food and non-alcoholic beverages due to the increase, mainly, in the prices of: *bread and cereals, beef, pork, lamb and goat, dried salted or smoked meat, fresh fish, fresh whole milk, cheese, other edible oils, fresh fruits, fresh vegetables, preserved or processed vegetables, sugar - chocolates - sweets - ice-creams, coffee - cocoa - tea*. This increase was partly offset by the decrease, mainly, in the prices of: *poultry, olive oil, potatoes, soft drinks*.
- 0.6% in the group Education, due to the increase, mainly, in the prices of: *fees of pre-primary and primary education, fees of secondary education*.

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

Main groups of goods and services	Weights HBS 2018 (%)	2020	2020	Rate of change %	2019	2019	Rate of change %
		September	August		September	August	
1. Food & non-alcoholic beverages	202.67	106.48	105.28	1.1	103.94	103.33	0.6
2. Alcoholic beverages and tobacco	37.07	148.92	149.09	-0.1	148.80	148.61	0.1
3. Clothing and footwear	65.92	102.47	74.62	37.3	102.49	72.56	41.3
4. Housing	141.50	113.34	113.26	0.1	120.58	118.63	1.6
5. Household equipment	43.08	85.95	85.03	1.1	86.85	86.17	0.8
6. Health	76.74	97.84	98.09	-0.3	99.07	99.12	0.0
7. Transport	144.01	116.51	117.44	-0.8	126.52	128.38	-1.4
8. Communication	42.41	105.04	105.30	-0.2	107.63	107.54	0.1
9. Recreation and culture	39.38	86.23	86.19	0.1	87.30	87.21	0.1
10. Education	32.24	88.91	88.98	-0.1	88.41	88.50	-0.1
11. Hotels-Cafés-Restaurants	109.23	108.92	108.92	0.0	109.98	109.77	0.2
12. Miscellaneous goods and services	65.75	89.76	89.33	0.5	91.16	91.05	0.1
Overall Index	1000.00	105.40	103.30	2.0	107.53	105.31	2.1

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: September 2020/2019

Main groups of goods and services	September		Rate of change (%)	Impact
	2020	2019		
1. Food and non-alcoholic beverages	106.48	103.94	2.4	0.4938
2. Alcoholic beverages and tobacco	148.92	148.80	0.1	0.0018
3. Clothing and footwear	102.47	102.49	0.0	-0.0031
4. Housing	113.34	120.58	-6.0	-0.8519
5. Household equipment	85.95	86.85	-1.0	-0.0449
6. Health	97.84	99.07	-1.2	-0.0951
7. Transport	116.51	126.52	-7.9	-1.1431
8. Communication	105.04	107.63	-2.4	-0.1040
9. Recreation and culture	86.23	87.30	-1.2	-0.0481
10. Education	88.91	88.41	0.6	0.0183
11. Hotels-Cafés-Restaurants	108.92	109.98	-1.0	-0.1045
12. Miscellaneous goods and services	89.76	91.16	-1.5	-0.1013
Overall Index	105.40	107.53	-2.0	

II: September 2019/2018

Main groups of goods and services	September		Rate of change (%)	Impact
	2019	2018		
1. Food and non-alcoholic beverages	103.94	106.18	-2.1	-0.4381
2. Alcoholic beverages and tobacco	148.80	147.94	0.6	0.0230
3. Clothing and footwear	102.49	102.50	0.0	-0.0005
4. Housing	120.58	119.65	0.8	0.1061
5. Household equipment	86.85	88.85	-2.3	-0.0977
6. Health	99.07	97.30	1.8	0.1338
7. Transport	126.52	125.27	1.0	0.1372
8. Communication	107.63	104.72	2.8	0.1199
9. Recreation and culture	87.30	88.81	-1.7	-0.0674
10. Education	88.41	88.62	-0.2	-0.0076
11. Hotels-Cafés-Restaurants	109.98	109.65	0.3	0.0396
12. Miscellaneous goods and services	91.16	91.48	-0.3	-0.0228
Overall Index	107.53	107.61	-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 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
6	105.77	0.0	-1.6	106.48	-0.3
7	103.97	-1.7	-1.8	106.32	-0.4
8	103.30	-0.6	-1.9	106.15	-0.5
9	105.40	2.0	-2.0	105.97	-0.7

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

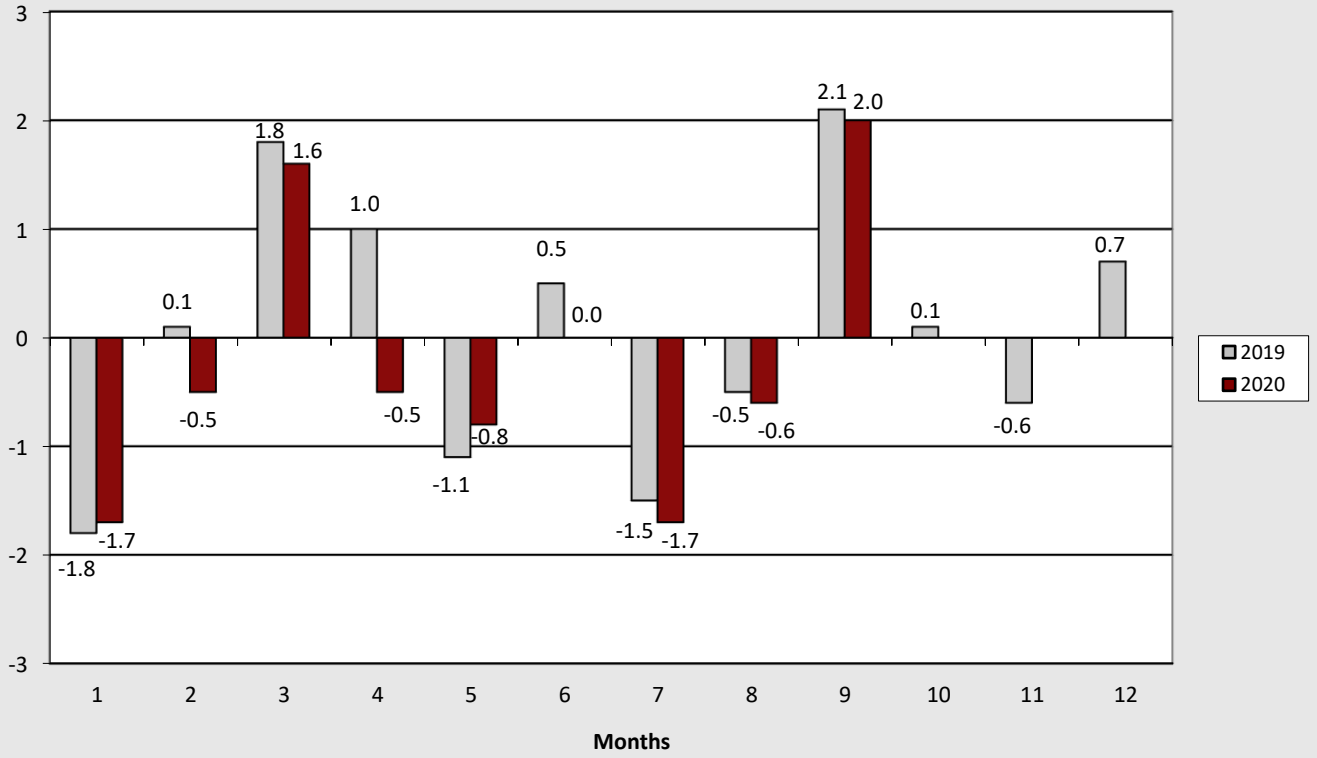
**Table 4. Major price changes from index comparison between
September 2020 and August 2020 and their impact
on the Overall CPI**

Goods and services	Rate of change (%)	Impact
Bread and cereals	0.7	0.02
Lamb and goat	2.5	0.01
Poultry	1.7	0.02
Fresh fish	2.2	0.02
Cheese	0.8	0.01
Oils and fats	1.4	0.01
Fresh fruits	5.3	0.08
Fresh vegetables	7.2	0.09
Beef	-0.5	-0.01
Fresh whole milk	-1.8	-0.01
Natural gas	3.4	0.01
Pharmaceutical products	-0.7	-0.02
Passenger transport by air	-8.2	-0.11
Fuels and lubricants	-0.2	-0.01
New motorcars	0.9	0.02
Telephone services	-0.2	-0.01
Other appliances and articles for personal care	0.7	0.02
Recovery of prices up to normal levels as before the summer sales period	-	1.91

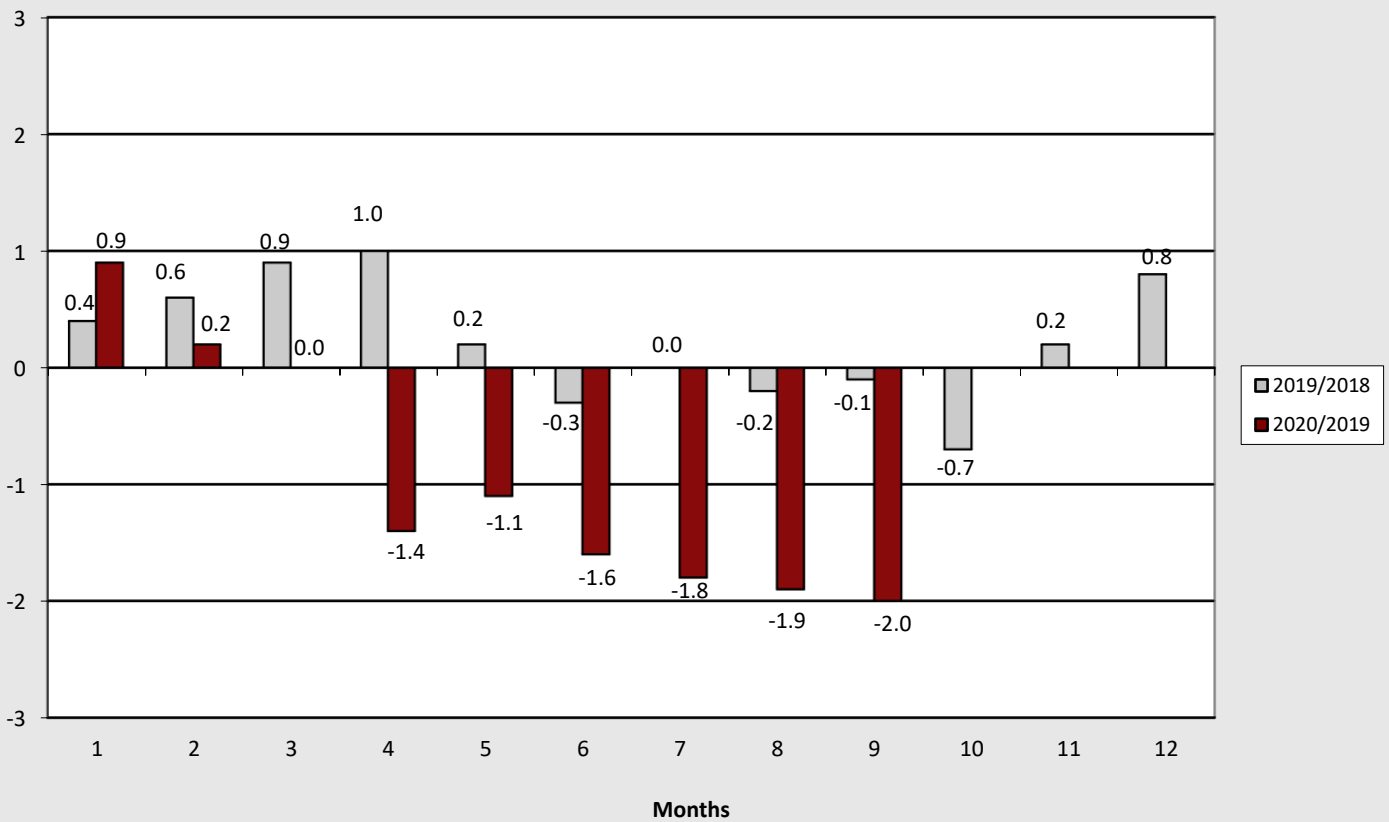
**Table 5. Major price changes from index comparison between
September 2020 and September 2019 and their impact
on the Overall CPI**

Goods and services	Rate of change (%)	Impact
Bread and cereals	1.1	0.03
Beef	0.6	0.01
Pork	4.6	0.04
Lamb and goat	4.5	0.02
Dried salted or smoked meat	6.8	0.03
Fresh fish	2.0	0.02
Fresh whole milk	2.2	0.02
Cheese	2.3	0.04
Other edible fats	12.3	0.01
Fresh fruits	21.5	0.28
Fresh vegetables	3.2	0.04
Preserved or processed vegetables	2.5	0.02
Sugar – chocolates – sweets – ice-creams	1.7	0.02
Coffee - cocoa - tea	2.2	0.01
Poultry	-3.4	-0.03
Olive oil	-4.6	-0.04
Potatoes	-4.7	-0.02
Soft drinks	-6.0	-0.01
Heating oil	-30.6	-0.68
Natural gas	-32.1	-0.11
Electricity	-1.6	-0.06
Solid fuels	-3.0	-0.02
Household textiles	-4.1	-0.02
Household appliances and repair	-3.3	-0.02
Pharmaceutical products	-4.0	-0.10
Medical, dental and paramedical services	0.5	0.01
Fuels and lubricants	-10.9	-0.63
Passenger transport by air	-26.9	-0.45
Passenger transport by railway	-12.3	-0.02
Passenger transport by road	-8.8	-0.05
Combined passenger transport	-12.4	-0.04
New motorcars	2.4	0.04
Telephone services	-2.7	-0.11
Audiovisual and information processing equipment	-4.4	-0.03
Small recreational items-flowers-pets	-1.6	-0.01
Pre-primary and primary education	1.9	0.01
Secondary education	0.6	0.01
Hotels-motels-inns	-18.2	-0.14
Restaurants-confectioneries-cafes-buffets	0.3	0.03
Other appliances and articles for personal care	-4.2	-0.11
Other personal effects	-2.9	-0.01

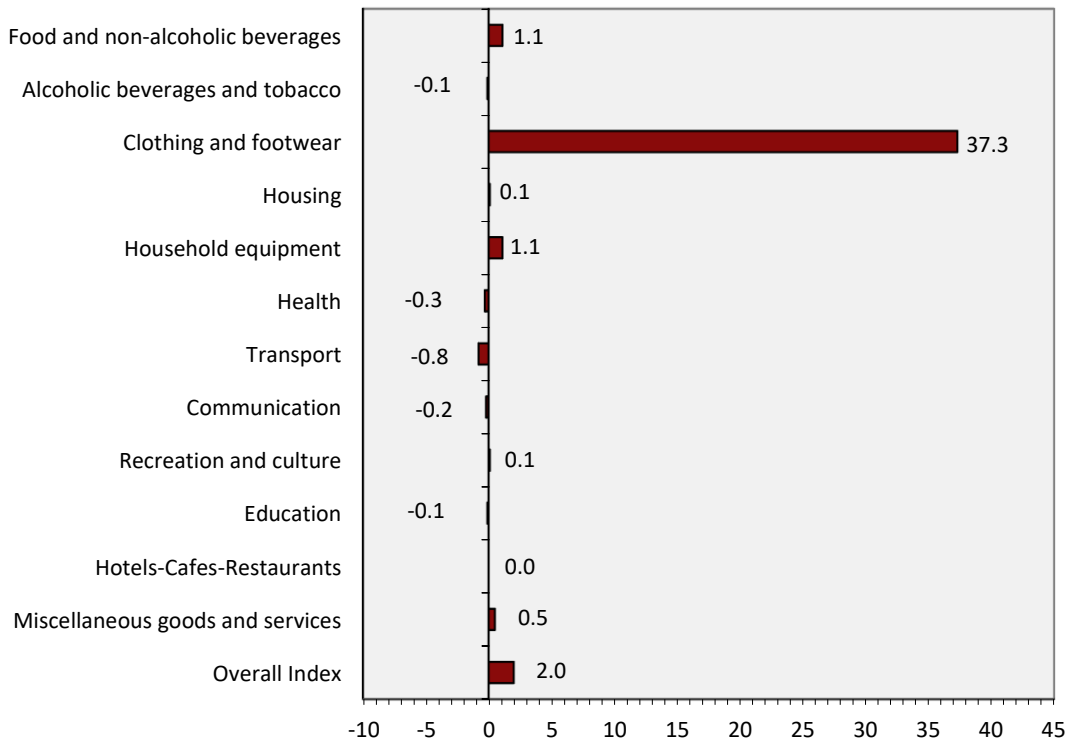
Graph 3. Monthly rates of change (%) of the overall CPI, 2019 and 2020



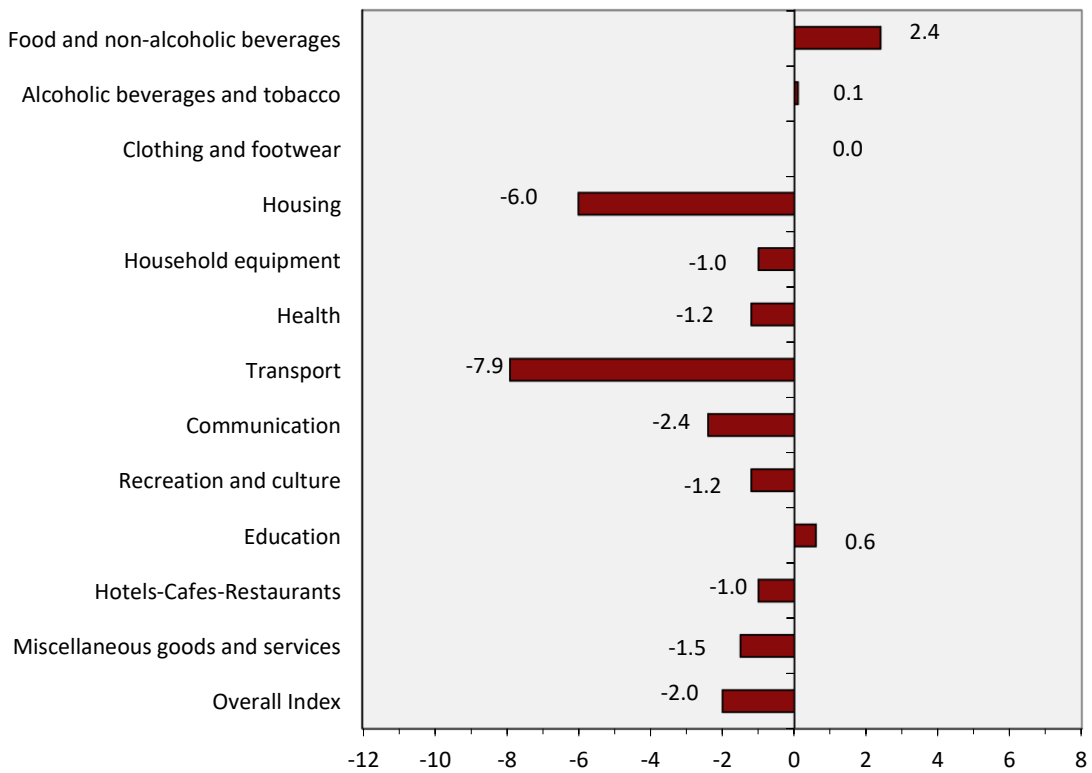
Graph 4. Annual rates of change (%) of the overall CPI, 2019 and 2020



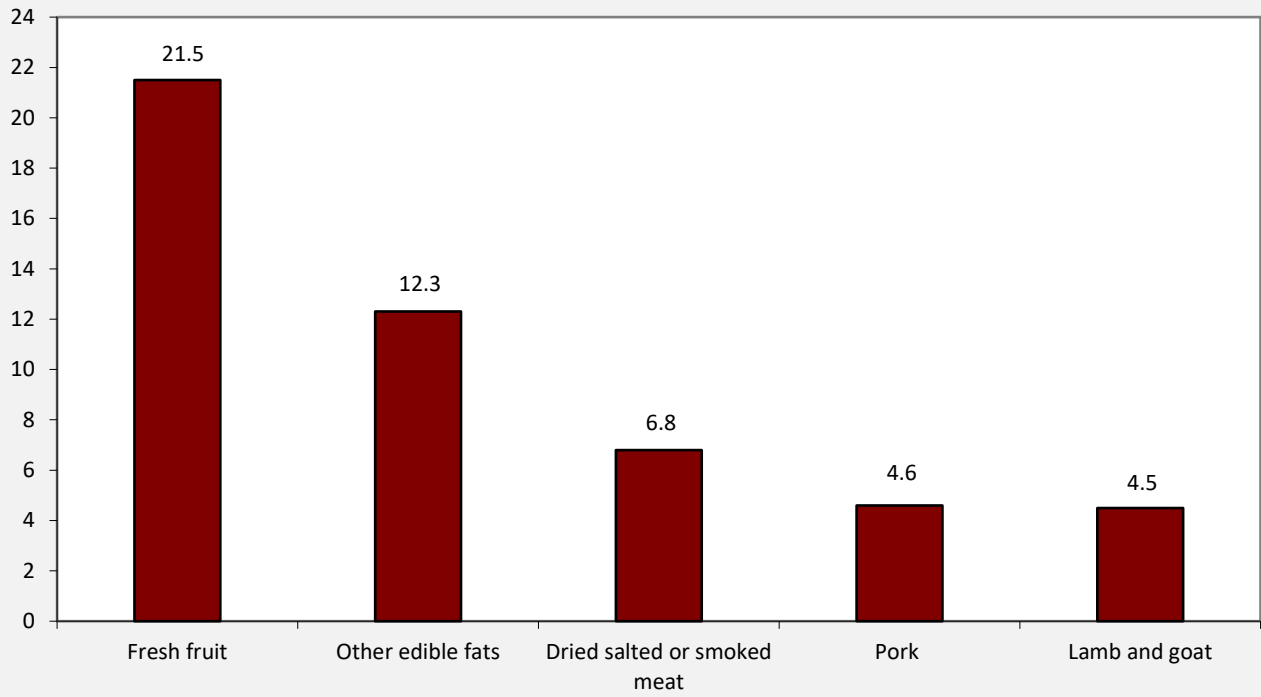
Graph 5. Monthly rates of change (%) of CPI between September 2020 and August 2020



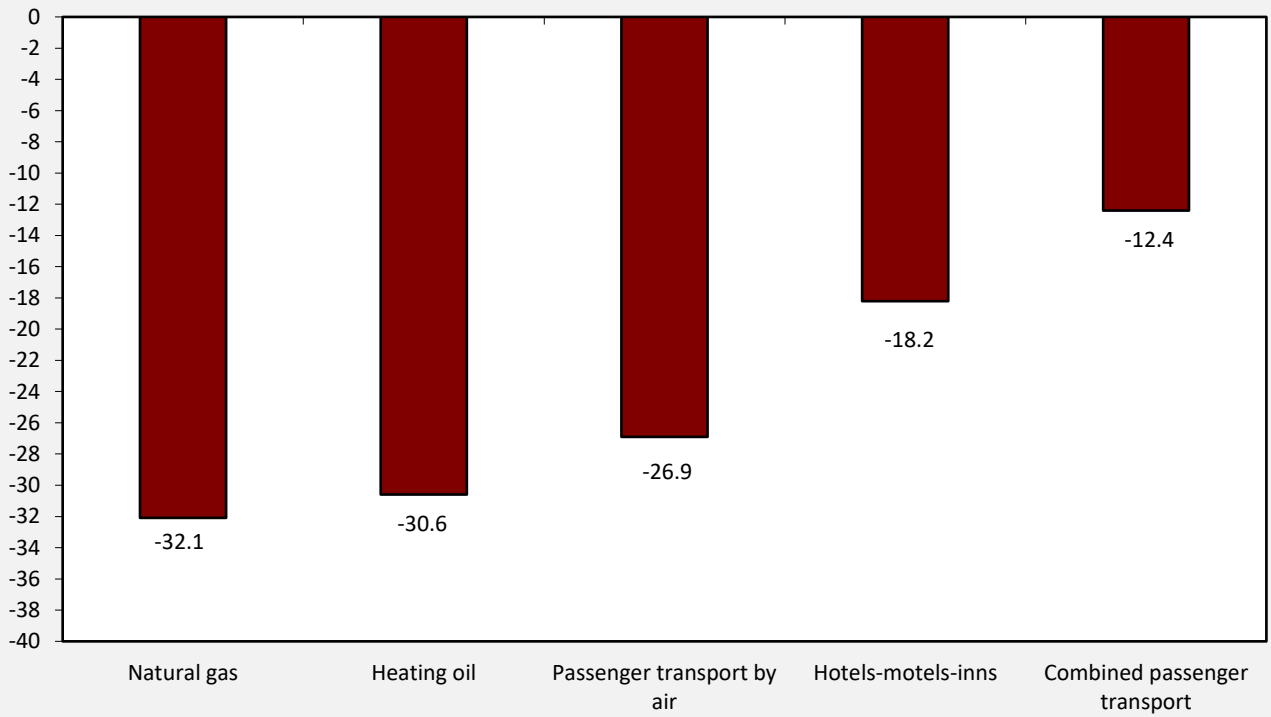
Graph 6. Annual rates of change (%) of CPI between September 2020 and September 2019



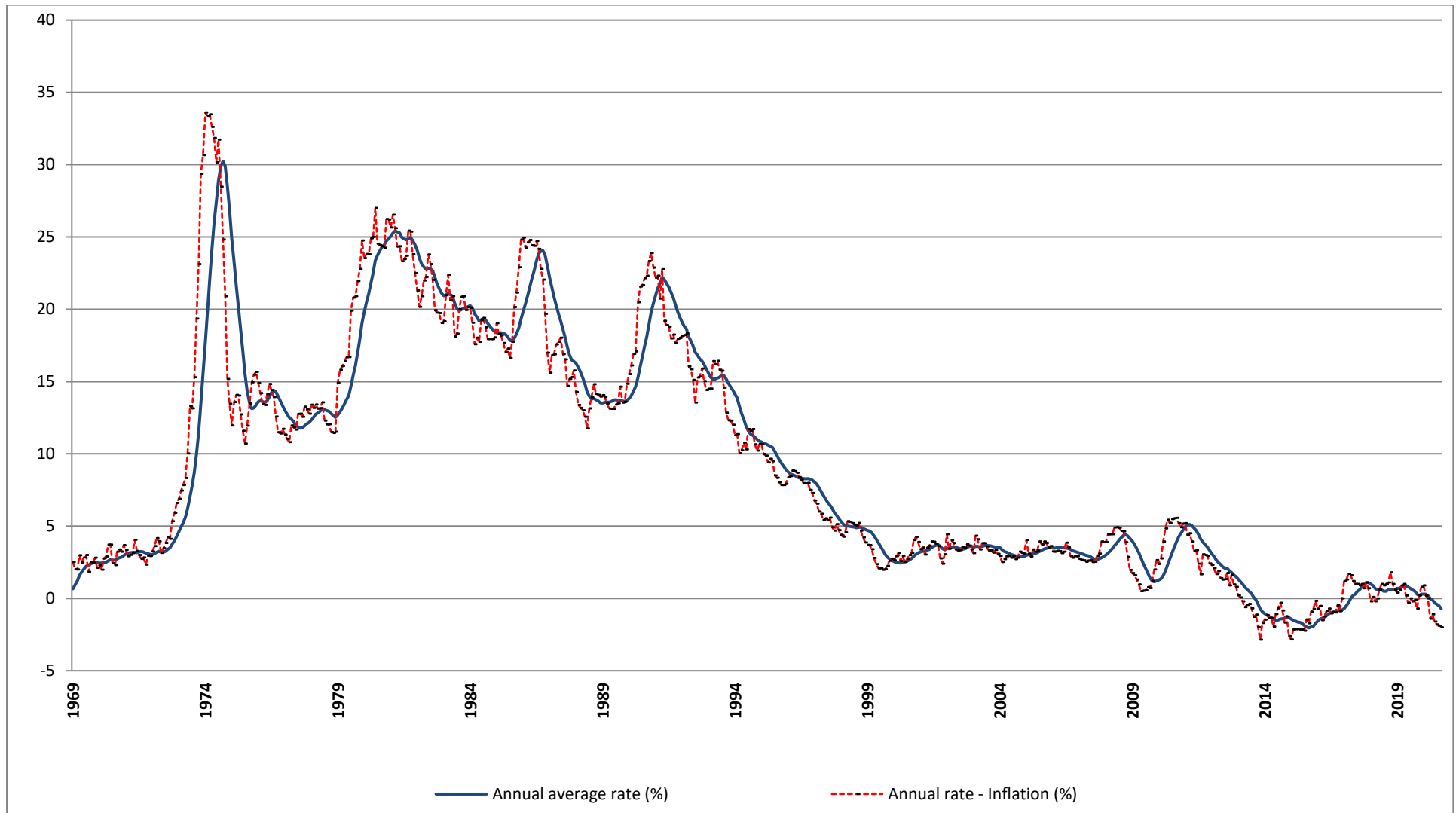
Graph 7. CPI highest annual increases (%)



Graph 8. CPI highest annual decreases (%)



Graph 9. Historical evolution of CPI, 1969 – 2020



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 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 \(SIMS\)](#).