



PRESS RELEASE

CONSUMER PRICE INDEX: December 2021, annual inflation 5.1%

The evolution of the Consumer Price Index (CPI) of December 2021 (reference year 2009=100.0) is depicted as follows:

The CPI in December 2021 compared with December 2020, increased by 5.1%. In December 2020, the annual rate of change of the CPI was -2.3% (Table 2).

The CPI in December 2021 compared with November 2021, increased by 0.7%. In December 2020, the monthly rate of change of the CPI was 0.4% (Table 1).

The average CPI for the twelve - month period from January 2021 to December 2021, compared with the corresponding index for the period January 2020 to December 2020 increased by 1.2%. The annual rate of change of the average CPI between the twelve - month period January 2020 to December 2020 in comparison to the period January 2019 to December 2019 was -1.2% (Table 3).

6 5 4 3 2 1 0 -1 -2 -3 -4 2016 2011 2012 2020 2021 ---- CPI annual rates of change CPI annual average rates of change

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

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Analysis of changes of the CPI: December 2021

I. Monthly rates of change: December 2021 compared with November 2021 (Tables 1, 4)

The 0.7% increase of the Overall CPI in December 2021, compared with the corresponding index in November 2021 is, mainly, due to the changes in the groups of goods and services as follows:

1. An increase of:

- 10.3 %in the group <u>Clothing and footwear</u>, due to the recovery of part of prices up to normal levels before the 10-day period of winter sales.
- 0.8% in the group <u>Housing</u>, due to the increase, mainly, in the prices of *electricity*. This increase was partly offset by the decrease, mainly, in the prices of: *natural gas, heating oil*.
- 0.2% in the group <u>Household equipment</u>, due to the recovery of part of prices up to normal levels before the 10-day period of winter sales. This increase was partly offset by the decrease, mainly, in the prices of *non durable household articles*.
- 0.3% in the group <u>Transport</u>, due to the increase, mainly, in the prices of: *new motorcars, second hand motorcars*. This increase was partly offset by the decrease, mainly, in the prices of: *petrol, tickets for passenger transport by air*.

2. A decrease of:

- 0.5% in the group Alcoholic beverages and tobacco, due to the decrease, mainly, in the prices of spirits.
- 0.2% 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.

II. Annual rates of change: December 2021 compared with December 2020 (Tables 2, 5)

The 5.1% increase of the Overall CPI in December 2021, compared with the corresponding index in December 2020 is, mainly, due to the changes in the groups of goods and services as follows:

1. An increase of:

- 4.3% in the group Food and non-alcoholic beverages due to the increase, mainly, in the prices of: bread, other bakery products, pasta products and couscous, beef, lamb and goat, poultry, other meat preparations, fresh fish, cheese, olive oil, other edible oils, fresh fruit, fresh vegetables, preserved or processed vegetables, potatoes, chocolates-chocolate products, food n.e.c., coffee. This increase was partly offset by the decrease, mainly, in the prices of: pork, dried salted or smoked meat, fresh whole milk, jams-marmalades-honey.
- 3.0% in the group Clothing and footwear, due to the increase in the prices of clothing and footwear.
- 18.0% in the group <u>Housing</u>, due to the increase, mainly, in the prices of: *rentals for dwellings, electricity, natural gas, heating oil.*
- 2.3% in the group <u>Household equipment</u>, due to the increase, mainly, in the prices of: *furniture and furnishings, glassware-tableware and utensils of domestic use, non-durable household articles, domestic services*.
- 10.9% in the group <u>Transport</u>, due to the increase, mainly, in the prices of: *new motorcars, second hand motorcars, fuels and lubricants, tickets for passenger transport by air.*
- 0.9% in the group Education, due to the increase, mainly, in the prices of fees of secondary education.
- 1.2% in the group <u>Hotel-Cafés-Restaurants</u>, due to the increase, mainly, in the prices of: *restaurants-confectioneries-cafes*, *hotels-motels-inns*.

2. A decrease of:

- 0.1% in the group <u>Health</u>, due to the decrease, mainly, in the prices of *pharmaceutical products*. This decrease was partly offset by the increase, mainly, in the prices of *dental services*.
- 2.5% in the group Communication, due to the decrease, mainly, in the prices of telephone services.
- 0.6% in the group Recreation and culture, due to the decrease, mainly, in the prices of: audiovisual and information processing equipment, major durables for outdoor recreation. This decrease was partly offset by the increase, mainly, in the prices of small recreational items-flowers-pets.
- 0.6% 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, motor vehicle insurance.*

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

	Main groups	Weights 2021	2021	2021	Rate of change	2020	2020	Rate of change
of goods and services		(‰)	December	November	%	December	November	%
1.	Food & non-alcoholic beverages	232.58	110.70	110.74	0.0	106.12	107.00	-0.8
2.	Alcoholic beverages and tobacco	34.27	147.35	148.16	-0.5	147.31	148.31	-0.7
3.	Clothing and footwear	59.63	103.50	93.87	10.3	100.51	90.36	11.2
4.	Housing	142.22	136.11	134.99	0.8	115.39	114.70	0.6
5.	Household equipment	47.87	87.13	86.96	0.2	85.17	84.96	0.2
6.	Health	90.59	97.94	97.94	0.0	98.02	98.02	0.0
7.	Transport	124.20	129.33	128.94	0.3	116.67	117.97	-1.1
8.	Communication	44.20	101.81	101.94	-0.1	104.47	104.75	-0.3
9.	Recreation and culture	38.30	85.91	85.83	0.1	86.44	86.09	0.4
10.	Education	37.15	89.80	89.80	0.0	88.97	88.97	0.0
11.	Hotels-Cafés-Restaurants	70.17	109.65	109.72	-0.1	108.40	108.32	0.1
12.	Miscellaneous goods and services	78.84	88.24	88.43	-0.2	88.80	89.09	-0.3
	Overall Index	1000.00	110.64	109.90	0.7	105.26	104.84	0.4

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

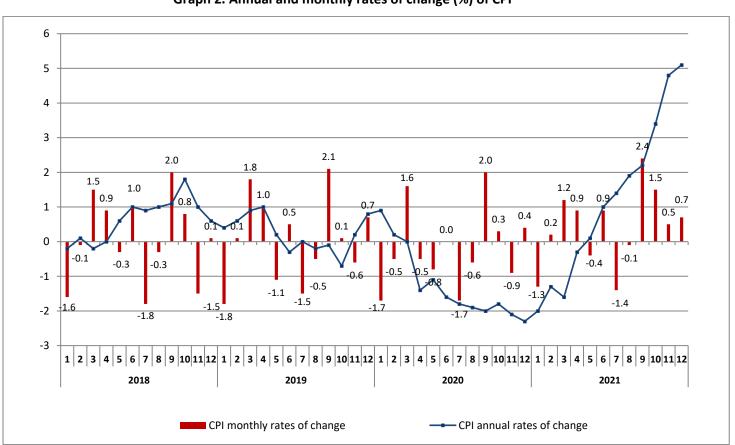


Table 2. Inflation – Annual rates of change of CPI (Reference year: 2009=100.0)

I: December 2021/2020

		December		Rate of	Impact
	Main groups of goods and services		2020	change (%)	mpace
1.	Food and non-alcoholic beverages	110.70	106.12	4.3	1.0034
2.	Alcoholic beverages and tobacco	147.35	147.31	0.0	0.0011
3.	Clothing and footwear	103.50	100.51	3.0	0.1773
4.	Housing	136.11	115.39	18.0	2.5531
5.	Household equipment	87.13	85.17	2.3	0.1104
6.	Health	97.94	98.02	-0.1	-0.0078
7.	Transport	129.33	116.67	10.9	1.3477
8.	Communication	101.81	104.47	-2.5	-0.1124
9.	Recreation and culture	85.91	86.44	-0.6	-0.0234
10.	Education	89.80	88.97	0.9	0.0348
11.	Hotels-Cafés-Restaurants	109.65	108.40	1.2	0.0812
12.	Miscellaneous goods and services	88.24	88.80	-0.6	-0.0503
	Overall Index	110.64	105.26	5.1	

II: December 2020/2019

		Dec	æmber	Rate of	Impact
	Main groups of goods and services	2020	2019	change (%)	mpact
1.	Food and non-alcoholic beverages	106.12	105.29	0.8	0.1588
2.	Alcoholic beverages and tobacco	147.31	147.87	-0.4	-0.0141
3.	Clothing and footwear	100.51	103.58	-3.0	-0.1951
4.	Housing	115.39	120.49	-4.2	-0.5980
5.	Household equipment	85.17	87.31	-2.4	-0.1055
6.	Health	98.02	99.16	-1.1	-0.0881
7.	Transport	116.67	126.45	-7.7	-1.1138
8.	Communication	104.47	106.80	-2.2	-0.0927
9.	Recreation and culture	86.44	86.80	-0.4	-0.0161
10.	Education	88.97	88.98	0.0	-0.0006
11.	Hotels-Cafés-Restaurants	108.40	109.06	-0.6	-0.0658
12.	Miscellaneous goods and services	88.80	91.44	-2.9	-0.1895
	Overall Index	105.26	107.76	-2.3	

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 %
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
10	105.77	0.3	-1.8	105.81	-0.8
11	104.84	-0.9	-2.1	105.63	-1.0
12	105.26	0.4	-2.3	105.42	-1.2
Annual average	105.42	-	-	105.42	-1.2
2021 : 1	103.86	-1.3	-2.0	105.25	-1.5
2	104.08	0.2	-1.3	105.14	-1.6
3	105.33	1.2	-1.6	104.99	-1.7
4	106.29	0.9	-0.3	104.97	-1.6
5	105.87	-0.4	0.1	104.98	-1.5
6	106.86	0.9	1.0	105.07	-1.3
7	105.38	-1.4	1.4	105.19	-1.1
8	105.24	-0.1	1.9	105.35	-0.8
9	107.73	2.4	2.2	105.54	-0.4
10	109.38	1.5	3.4	105.84	0.0
11	109.90	0.5	4.8	106.26	0.6
12	110.64	0.7	5.1	106.71	1.2
Annual average	106.71	-	-	106.71	1.2

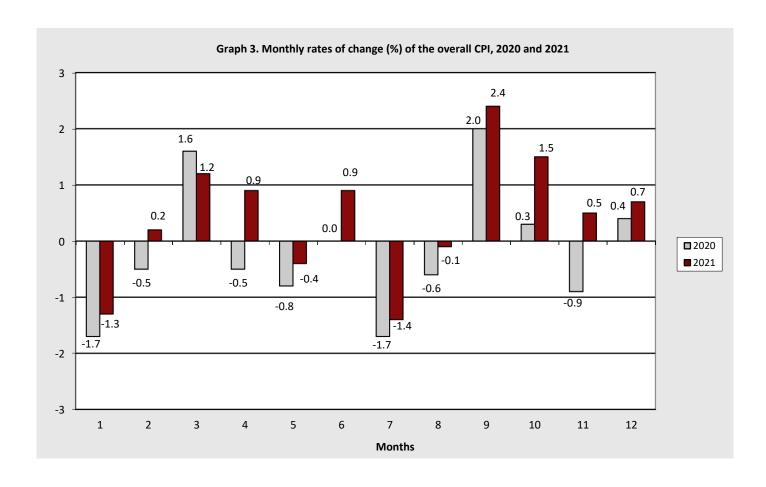
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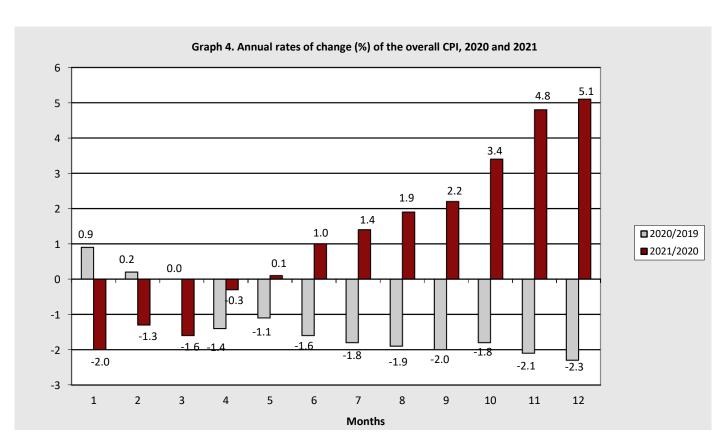
Table 4. Major price changes from index comparison between December 2021 and November 2021 and their impact on the Overall CPI

Goods and services	Rate of change (%)	Impact
Bread	0.7	0.01
Pasta products and couscous	6.6	0.03
Beef	2.3	0.05
Fresh fish	1.7	0.02
Cheese	1.6	0.03
Preserved or processed vegetables	1.5	0.01
Pork	-2.1	-0.02
Dried salted or smoked meat	-3.8	-0.02
Fresh fruit	-5.2	-0.09
Fresh vegetables	-2.1	-0.03
Frozen vegetables	-3.3	-0.01
Spirits	-2.8	-0.01
Electricity	5.2	0.27
Natural gas	-16.2	-0.09
Heating oil	-3.0	-0.06
Non-durable household articles	-1.0	-0.02
New motorcars	1.3	0.03
Second hand motorcars	11.5	0.14
Petrol	-1.5	-0.07
Passenger transport by air	-8.6	-0.05
Other appliances and articles for personal care	-0.6	-0.02
Recovery of prices up to normal levels before the 10-day period of winter sales	-	0.58

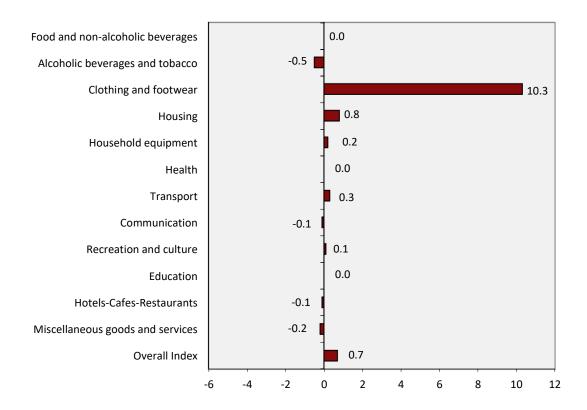
Table 5. Major price changes from index comparison between December 2021 and December 2020 and their impact on the Overall CPI

Goods and services	Rate of change (%)	Impact
Bread	4.9	0.08
Other bakery products	2.9	0.02
Pasta products and couscous	7.6	0.03
Beef	4.2	0.09
Lamb and goat	19.7	0.10
Poultry	6.6	0.07
Other meat preparations	6.6	0.01
Fresh fish	6.7	0.08
Cheese	5.5	0.10
Olive oil	17.0	0.16
Other edible oils	17.1	0.02
Fresh fruit	5.5	0.09
Fresh vegetables	5.5	0.08
Preserved or processed vegetables	1.6	0.01
Potatoes	14.2	0.05
Chocolates-chocolate products	4.0	0.01
Food n.e.c.	3.4	0.02
Coffee	3.4	0.02
Pork	-1.5	-0.01
Dried salted or smoked meat	-3.5	-0.02
Fresh whole milk	-1.4	-0.01
Jams-marmalades-honey	-2.8	-0.01
Clothing and footwear	3.0	0.18
Rentals for dwellings	0.5	0.02
Electricity	45.0	1.75
Natural gas	135.7	0.27
Heating oil	34.1	0.49
Furniture and furnishings	3.8	0.01
Glassware-tableware and utensils of domestic use	7.8	0.02
Non-durable household articles	1.0	0.02
Domestic services	5.7	0.06
Pharmaceutical products	-1.1	-0.03
Dental services	1.1	0.01
New motorcars	7.7	0.14
Second hand motorcars	11.5	0.14
Fuels and lubricants	21.7	0.95
Passenger transport by air	19.6	0.09
Telephone services	-2.5	-0.10
Audiovisual and information processing equipment	-2.1	-0.02
Major durables for outdoor recreation	-3.2	-0.02
Small recreational items-flowers-pets	1.3	0.01
Secondary education	1.4	0.03
Restaurants-confectioneries-cafes	1.1	0.07
Hotels-motels-inns	7.3	0.01
Other appliances and articles for personal care	-0.8	-0.03
Motor vehicle insurance	-1.9	-0.03

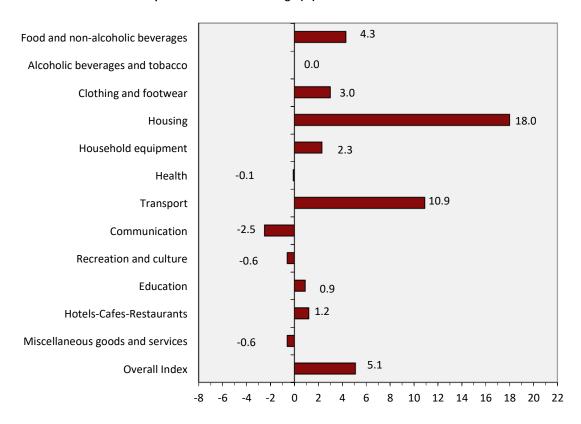


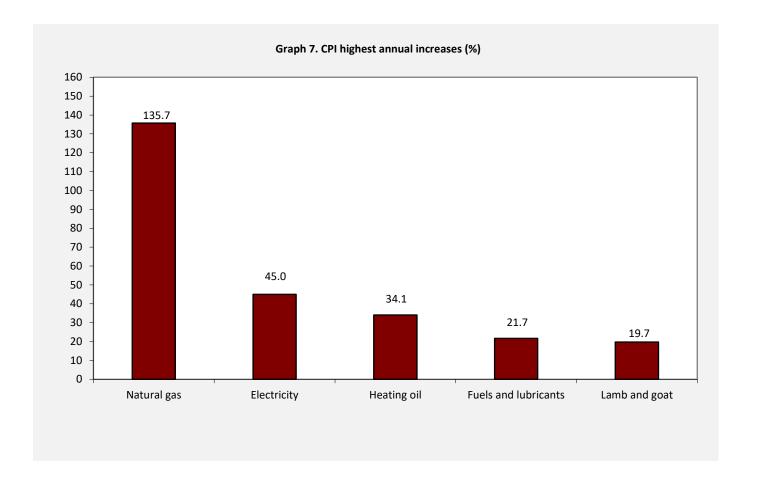


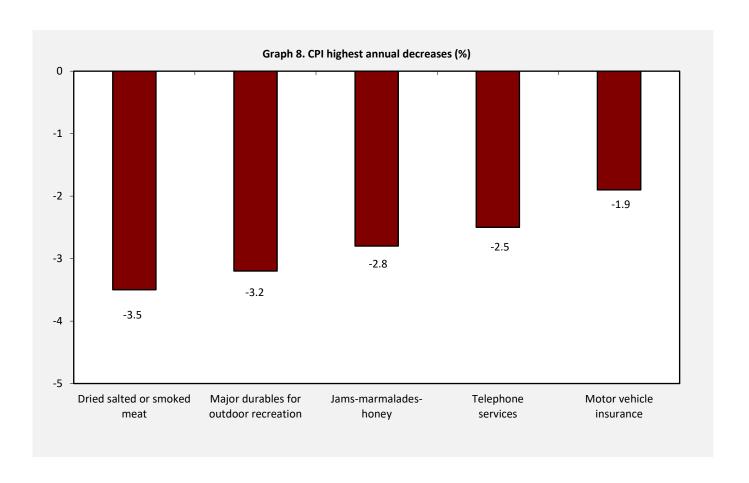
Graph 5. Monthly rates of change (%) of CPI between December 2021 and November 2021



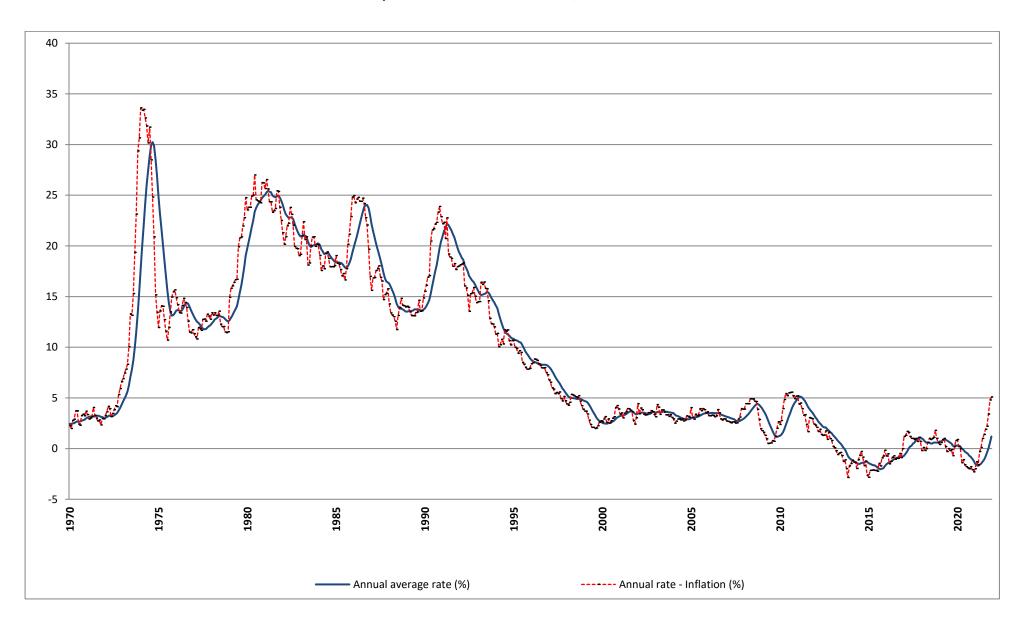
Graph 6. Annual rates of change (%) of CPI between December 2021 and December 2020







Graph 9. Historical evolution of CPI, 1970 – 2021



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:

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

 $\mathbf{W}_{:}^{\mathrm{T}}$ = the weight of the price collected item I, in year T.

 $\mathbf{R}^{t,T}$ = 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 <u>Methodological Publication CPI (2009=100.0)</u> and the <u>Single Integrated Metadata Structure (SIMS)</u>.