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CONSUMER PRICE INDICES, OCTOBER 2023

In October 2023, compared to October 2022 (at the annual level), the prices of goods and services for personal consumption, measured by the consumer price index, increased by 5.8% on average, while compared to September 2023 (at the monthly level), they increased by 0.5% on average.

Observing the main divisions of the ECOICOP classification, at the annual level, the highest increase on average in consumer prices was recorded in the following divisions: Restaurants and hotels, of 12.1% (contribution to the growth of +0.61 percentage points), Food and non-alcoholic beverages, of 8.7% (+2.31 percentage points), Recreation and culture, of 6.7% (+0.35 percentage points), Clothing and footwear as well as Miscellaneous goods and services, of 6.6% in each division (contribution to the growth of +0.40 percentage points in the division Clothing and footwear and of +0.41 percentage points in the division Miscellaneous goods and services), Health, of 6.4% (+0.20 percentage points), Furnishings, household equipment and routine household maintenance, of 6.3% (+0.36 percentage points), Education, of 5.5% (+0.04 percentage points), and Alcoholic beverages and tobacco, of 5.4% (+0.27 percentage points).

At the monthly level, the highest increase on average was recorded in the divisions Clothing and footwear, of 11.1% (contribution to the growth of +0.68 percentage points), Communication, of 2.7% (+0.14 percentage points), Education, of 1.2% (+0.01 percentage points), Health, of 0.5% (+0.02 percentage points), and Miscellaneous goods and services, of 0.3% (+0.02 percentage points). The increase in prices at the monthly level was alleviated by a decrease in the prices in the divisions Recreation and culture, of 0.8% (contribution to the decrease of -0.04 percentage points), Transport, of 0.6% (-0.08 percentage points), Food and non-alcoholic beverages as well as Housing, water, electricity, gas and other fuels, of 0.5% in each division (contribution to the decrease of -0.13 percentage points in the division Food and non-alcoholic beverages and of -0.08 percentage points in the division Housing, water, electricity, gas and other fuels).

According to the main components of index (special aggregates), at the annual level, an increase in prices was recorded in the components Food, beverages and tobacco, of 8.2%, Services, of 7.3%, and Non-food industrial goods without energy, of 5.8%, while a decrease in prices was recorded in the component Energy, of 0.3%. **At the monthly level**, an increase in prices was recorded in the components Non-food industrial goods without energy, of 2.7%, and Services, of 0.4%, while a decrease in prices was recorded in the components Energy, of 1.2%, and Food, beverages and tobacco, of 0.4%.

Harmonised index of consumer prices

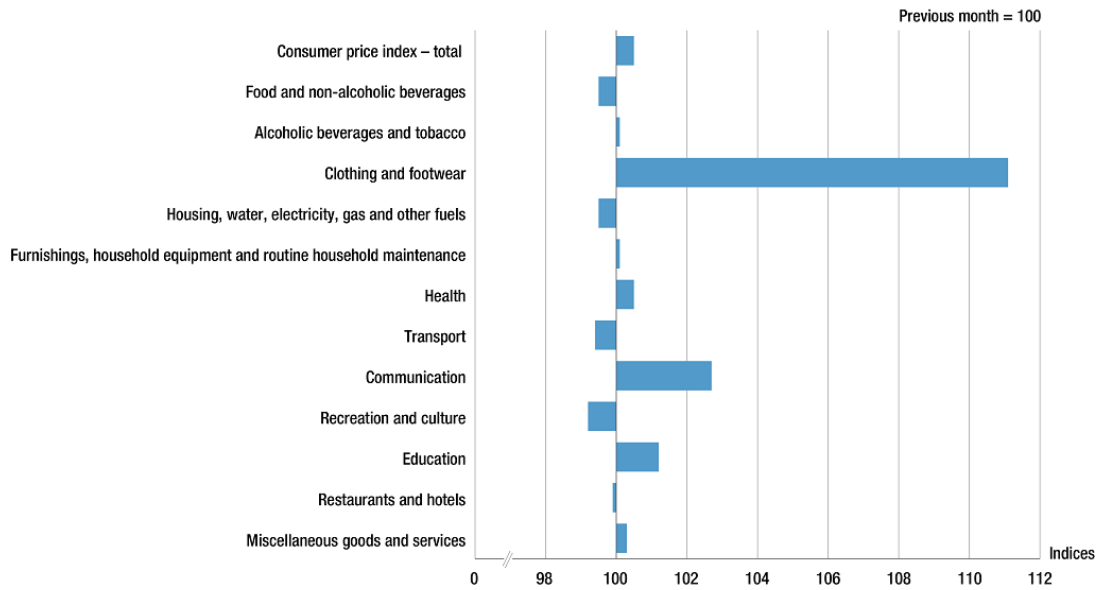
In October 2023, compared to October 2022 (at the annual level), the prices of goods and services for personal consumption, measured by the harmonised index of consumer prices, increased by 6.7% on average, while compared to September 2023 (at the monthly level), they increased by 0.3% on average.

1 CONSUMER PRICE INDICES, OCTOBER 2023¹⁾

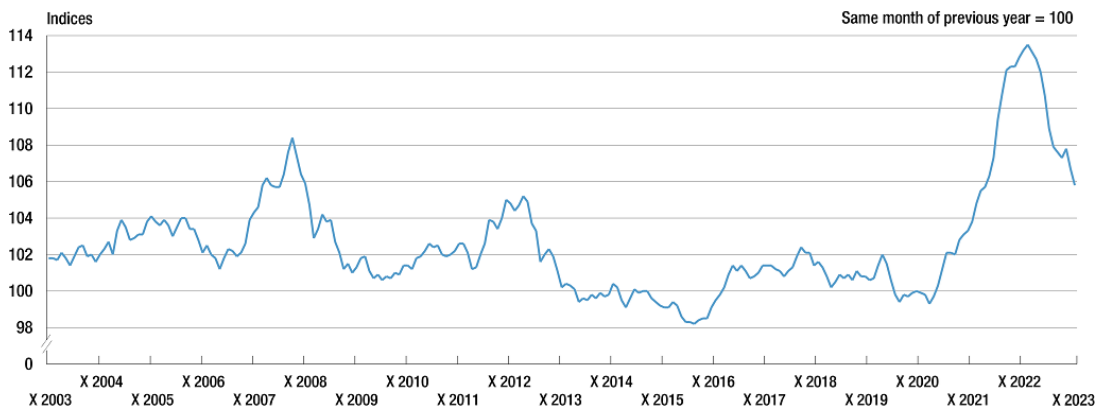
ECOICOP		Weights	X 2023 Ø 2015	X 2023 X 2022	X 2023 IX 2023	XI 2022 – X 2023 XI 2021 – X 2022
00	Consumer price index – total	1 000,00	128,2	105,8	100,5	109,4
01	Food and non-alcoholic beverages	265,37	141,0	108,7	99,5	114,7
02	Alcoholic beverages and tobacco	50,14	134,5	105,4	100,1	105,6
03	Clothing and footwear	61,15	125,1	106,6	111,1	108,6
04	Housing, water, electricity, gas and other fuels	169,88	118,6	100,3	99,5	109,5
05	Furnishings, household equipment and routine household maintenance	57,79	128,1	106,3	100,1	111,3
06	Health	31,49	116,0	106,4	100,5	106,1
07	Transport	139,53	126,9	104,2	99,4	102,5
08	Communication	53,02	104,7	105,1	102,7	102,1
09	Recreation and culture	52,12	120,6	106,7	99,2	108,0
10	Education	6,88	110,3	105,5	101,2	103,0
11	Restaurants and hotels	50,15	157,3	112,1	99,9	115,6
12	Miscellaneous goods and services	62,48	123,8	106,6	100,3	110,1

1) Time series of consumer price indices according to the ECOICOP classification can be downloaded on the website of the Croatian Bureau of Statistics within the PC-AXIS databases section under Prices.

G-1 MONTHLY CONSUMER PRICE INDICES, OCTOBER 2023



G-2 ANNUAL CONSUMER PRICE INDICES, OCTOBER 2003 – OCTOBER 2023



2 CONSUMER PRICE INDICES, SPECIAL AGGREGATES, OCTOBER 2023

	Weights	X 2023 Ø 2015	X 2023 X 2022	X 2023 IX 2023	XI 2022 – X 2023 XI 2021 – X 2022
Goods	741,00	130,1	105,4	100,5	109,9
Food, beverages and tobacco	315,51	140,0	108,2	99,6	113,2
Unprocessed food	84,74	131,7	109,4	99,3	113,4
Processed food	230,77	143,5	107,8	99,7	113,1
Energy	161,89	125,6	99,7	98,8	105,6
Non-food industrial goods without energy	263,60	121,6	105,8	102,7	108,7
Services	259,00	122,6	107,3	100,4	107,9
Total	1 000,00	128,2	105,8	100,5	109,4
Total, without energy	838,11	128,8	107,2	100,8	110,2
Total, without energy and food	598,72	123,9	106,6	101,3	108,3
Total, without energy, food, beverages and tobacco	522,60	122,2	106,5	101,5	108,3
Total, without energy and unprocessed food	753,37	128,5	106,9	101,0	109,8

3 HARMONISED INDICES OF CONSUMER PRICES, OCTOBER 2023, RATES OF CHANGE¹⁾

ECOICOP		Weights	X 2023 ²⁾ Ø 2015	X 2023 X 2022	X 2023 IX 2023	XI 2022 – X 2023 XI 2021 – X 2022
00	Harmonised index of consumer prices – total	1 000,00	129,52	6,7	0,3	9,6
01	Food and non-alcoholic beverages	221,18	141,06	8,9	-0,4	14,7
02	Alcoholic beverages and tobacco	69,94	134,98	7,6	0,1	7,6
03	Clothing and footwear	45,99	126,28	6,8	11,3	9,1
04	Housing, water, electricity, gas and other fuels	123,62	120,08	-0,5	-0,3	6,6
05	Furnishings, household equipment and routine household maintenance	59,31	125,60	5,9	0,2	10,4
06	Health	54,45	119,35	6,5	0,5	6,2
07	Transport	120,19	125,28	4,6	-0,8	3,4
08	Communication	41,41	105,32	5,0	2,6	2,3
09	Recreation and culture	73,33	119,76	6,6	-0,8	7,7
10	Education	9,40	110,23	5,5	1,2	3,1
11	Restaurants and hotels	113,99	150,05	13,3	-0,7	16,9
12	Miscellaneous goods and services	67,19	124,82	6,5	0,2	9,9

1) Time series of the harmonised index of consumer prices according to the ECOICOP classification can be downloaded on the website of the Croatian Bureau of Statistics within the [Statistics in Line](#) section under Prices and on the [Eurostat website](#).

2) Indices.

NOTES ON METHODOLOGY

Definitions

Consumer price index (CPI) is used as a general measure of inflation in the Republic of Croatia and reflects the changes in prices of goods and services acquired, used or paid over time by a reference population (private households) for consumption purposes. In addition, it is used to guarantee the value of contracts with index clauses (e.g. for indexing wages and salaries in collective agreements, for indexing pensions, etc.), as well as for the comparison of the price movements within a particular country between different economy sectors, it can serve as a basis for deflating individual categories of national accounts data and other statistical series as well as for analytical purposes.

Harmonised index of consumer prices (HICP) is a set of European consumer price indices calculated according to a harmonised approach and a special set of definitions, which enable a comparable measure of inflation in the euro area, the European Union, the European Economic Area, and in candidate countries.

CPI and HICP are calculated on the basis of the same representative basket of goods and services. The main difference is the coverage of the population (HICP includes the total consumption of institutional households and non-residents in the economic territory and this consumption is not included in the national consumer price index).

While the CPI is most often applied as a general measure of inflation within the national framework, the HICP is a comparable measure of inflation among the countries of the European Union.

Coverage and price collection

The representative basket for monitoring consumer prices consists of about 900 products. About 38 000 prices are collected each month in predefined outlets. The CPI covers all goods and services purchased by the reference population for the purpose of final consumption. Imputed rents, expenditure on lotteries and gambling as well as life insurance services are not included.

Most of the prices of goods and services from the basket are collected by authorised price collectors using tablet computers at nine geographical locations (Zagreb, Slavonski Brod, Osijek, Sisak, Rijeka, Pula, Split, Dubrovnik and Varaždin). For the selected products from the basket, price collectors independently choose a specific product offer whose price will be recorded at the outlet. In order to make sure that collectors record the prices of the same items each month as well as to monitor which product offers are selected at outlets, price collectors also record a pre-defined set of additional product characteristics. Such a method of price collection enables the monitoring of changes in prices between two periods, but not the comparison of average prices between different geographic locations.

In addition to the prices collected directly by price collectors at outlets (local price collection), data on nationally homogenous prices are collected directly from reporting units or via the internet (central price collection). The prices for selected groups of products (market rents, household appliances, and electronics) are collected using the web scraping technique.

The majority of prices are collected once a month, on a working day (prices are not collected during weekends and public holidays), on approximately the same day of the month. The prices of agricultural products sold in marketplaces, the prices of passenger air transport, and the prices collected using the web scraping technique are recorded twice a month. The prices of fuel for passenger cars, the prices of package holidays, the prices of apartment rents, and the prices of accommodation in camps are recorded weekly. The prices of schoolbooks and education fees are recorded once a year.

Weights

The weights used for calculating the indices reflect the relative importance of the sampled goods or services in the total consumption of households within the domestic territory.

The main data source for determining the weights used in the calculation of the CPI is the Household Budget Survey (HBS), conducted on a regular basis by the Croatian Bureau of Statistics since 1998. This data source is supplemented by available additional data sources. Since January 2023, the compilation of CPIs has been based on the weights derived from data on household expenditures from the 2019 HBS, recalculated to December 2022 prices.

The main data source for determining the weights for the calculation of the HICP at higher levels of aggregation are the national accounts data, and for lower levels of aggregation, the data from the HBS are used. Since January 2023, the calculation of the HICP has been based on estimated national accounts data on household final consumption expenditure for 2022, supplemented by additional available data sources and recalculated to the difference between the 2022 average and December 2022 according to the [Eurostat recommendations](#).

Classification

The European Classification of Individual Consumption according to Purpose (ECOICOP) is used for the classification of products.

Calculation of indices

The calculation of the CPIs begins with the computation of the elementary aggregate indices.

The elementary aggregate indices are compiled as a ratio of the geometric means of prices for each geographical location. It means that prices for product-offers within elementary aggregates in the current month are compared to prices of the reference period (December of the previous year). From elementary aggregate indices at the level of geographical locations, elementary aggregate indices at national level are then calculated using the formula for the weighted arithmetic mean.

Elementary aggregate indices at national level are aggregated to higher index levels using the Laspeyres' type formula.

Harmonised index of consumer prices at constant tax rates (HICP-CT)

HICP-CT is the harmonised index of consumer prices where the rates of taxes on products are kept constant in the observation period compared to the reference period, i.e. through time. In the event of a tax rate change, the difference between the current HICP-CT and HICP indicates the effect of the tax rate change on the price changes assuming that changes in tax rates are applied instantaneously and fully.

Time series of the total HICP-CT can be downloaded on the website of the Croatian Bureau of Statistics within the [Statistics in Line](#) section under Prices, while a detailed breakdown according to the ECOICOP classification is available on the [Eurostat website](#).

Abbreviations

ECOICOP	European Classification of Individual Consumption according to Purpose
EU	European Union
Eurostat	Statistical Office of the European Union

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