

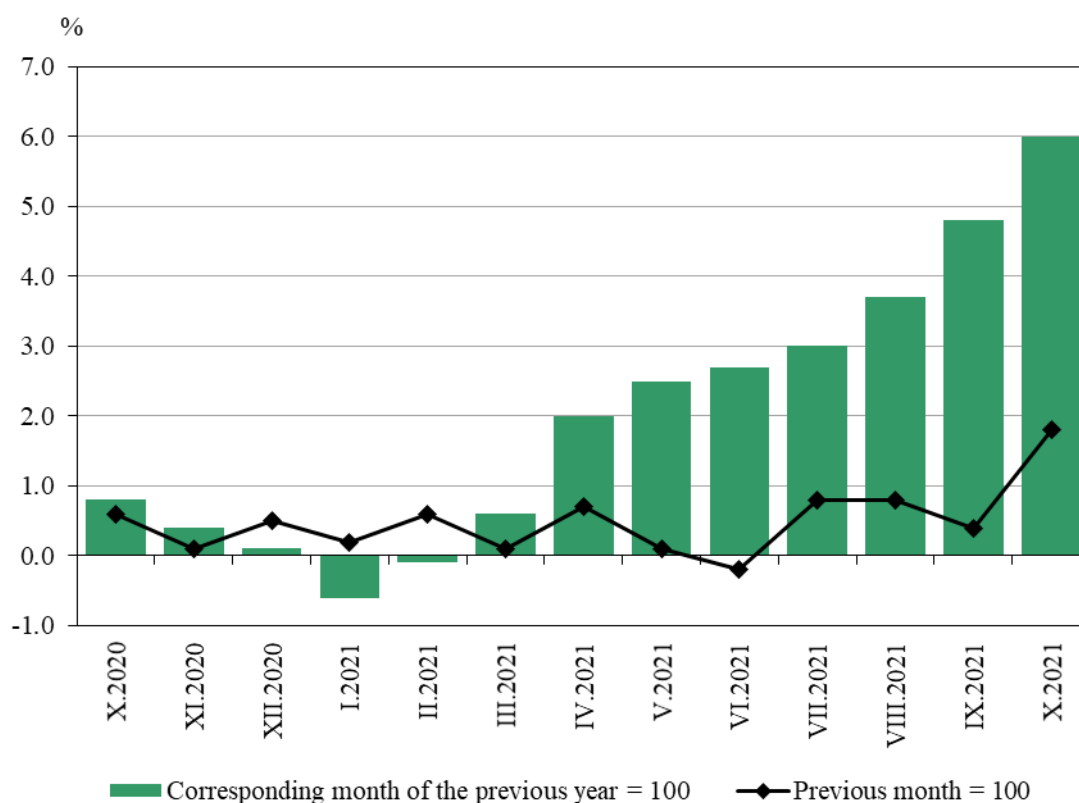
INFLATION AND CONSUMER PRICE INDICES IN OCTOBER 2021

Consumer price index (CPI)

The **consumer price index** in October 2021 compared to September 2021 was 101.8%, i.e. the monthly inflation was 1.8%. The inflation rate since the beginning of the year (October 2021 compared to December 2020) has been 5.4% and the annual inflation in October 2021 compared to October 2020 was 6.0% (Figure 1 and Annex, Table 1).

The annual average inflation, measured by CPI, in the last 12 months (November 2020 - October 2021) compared to the previous 12 months (November 2019 - October 2020) was 2.1%.

Figure 1. Inflation measured by CPI by months



In October 2021 compared to the previous month the prices of goods and services in the main consumer groups changed as follows:

- Food and non-alcoholic beverages - an increase of 1.6%;
- Alcoholic beverages and tobacco - an increase of 0.3%;
- Clothing and footwear - an increase of 8.3%;
- Housing, water, electricity, gas and other fuels - an increase of 3.0%;

- Furnishings, household equipment and routine maintenance of the house - an increase of 1.1%;
- Health - an increase of 0.2%;
- Transport - an increase of 2.5%;
- Communications - a decrease of 0.2%;
- Recreation and culture - an increase of 3.2%;
- Education - a decrease of 0.2%;
- Restaurants and hotels - an increase of 0.8%;
- Miscellaneous goods and services - an increase of 0.3%.

Harmonized index of consumer prices (HICP)

The **harmonized index of consumer prices** in October 2021 compared to September 2021 was 101.3%, i.e. the monthly inflation was 1.3%. The inflation rate since the beginning of the year (October 2021 compared to December 2020) has been 4.6% and the annual inflation in October 2021 compared to October 2020 was 5.2% (Annex, Table 2).

The annual average inflation, measured by HICP, in the last 12 months (November 2020 - October 2021) compared to the previous 12 months (November 2019 - October 2020) was 1.8%.

In terms of HICP, in October 2021 compared to the previous month the prices of goods and services in the main consumer groups changed as follows:

- Food and non-alcoholic beverages - an increase of 1.4%;
- Alcoholic beverages and tobacco - an increase of 0.4%;
- Clothing and footwear - an increase of 7.7%;
- Housing, water, electricity, gas and other fuels - an increase of 2.4%;
- Furnishings, household equipment and routine maintenance of the house - an increase of 1.4%;
- Health - an increase of 0.2%;
- Transport - an increase of 1.5%;
- Communications - a decrease of 0.2%;
- Recreation and culture - an increase of 1.1%;
- Education - a decrease of 0.3%;
- Restaurants and hotels - the prices remained at the level of the previous month;
- Miscellaneous goods and services - an increase of 0.2%.

Price index of a small basket (PISB)

The **price index of a small basket** in October 2021 compared to September 2021 was 101.7% and the overall increase since the beginning of the year (October 2021 compared to December 2020) has been 104.8% (Annex, Table 3).

In October 2021 compared to the previous month the prices of goods and services in the small basket for the 20% households with the lowest income changed as follows:

- Food products - an increase of 1.7%;
- Non-food products - an increase of 3.1%;
- Services - the prices remained at the level of the previous month.

Methodological notes

The **consumer price index (CPI)** is the official measure of inflation in the Republic of Bulgaria. It measures the total relative price change of goods and services used by households for private (non-production) consumption and is calculated by applying the structure of the final monetary consumption expenditures of Bulgarian households. The main source of information for the expenditure's is the household budget survey in the country. CPI in year t is calculated with the expenditures' structure of year $t-1$.

The **Harmonized Index of Consumer Prices (HICP)** is the comparable measure of inflation across EU Member states. It is one of the criteria of price stability and readiness of Bulgaria to join the euro-zone. HICP, as well as CPI, measure the total relative price change of goods and services. Both indices are calculated using the same basket of goods and services, but differ with respect to the weights used. HICP is calculated using weights, which reflect the individual and the collective consumption of all households (incl. institutional and foreign households) on the economic territory of the country. The main source of information for HICP weights is the national accounts (NA) data. For calculation of the HICP in 2021, NA data for households' final monetary consumption expenditures (HFMCE) - domestic concept in 2019 is used. NA 2019 data are reviewed and updated to make them representative of the year 2020 following Eurostat's methodological guidance on the compilation of HICP weights in case of large changes in consumer expenditures¹.

In compliance with Regulation (EC) No. 2015/2010 since January 2016 the base year for HICP has been changed and all indices have been calculated and published at 2015 as a base year. The time series have been recalculated according to the new base year and have been posted on the NSI website (www.nsi.bg).

The **Price Index of a Small Basket (PISB)** is a measurement of the relative average price changes of 100 socially useful and vital for living goods and services. The weights of this index reflect the expenditures of the 20% lowest household's incomes. The source of weights information is the Households Budget Survey in the country. This index in year t is calculated with the weights of year $t-1$.

The **chain** consumer price indices measure the price change in the current month compared to the previous month. The chain consumer price indices are used as a measure of **monthly inflation**.

The **12-month** consumer price indices measure the price changes occurring between the current month and the same month of the previous year. The 12-months consumer price indices are used as a measure of **annual inflation**.

Consumer price indices **over December of the previous year** measure the accumulated changes in prices of the current month with respect to December of the previous year. Consumer price indices over December of the previous year are used as measures of **inflation since the beginning of the year**. In December of each year, the 12-months index is equal to the index over December of the previous year.

The **annual average** consumer price indices measure the average price change during the 12 months of the current year compared to the average price change during the 12 months of the previous year. The annual average consumer price indices are used as a measure of the **annual average inflation**.

¹ Guidance on the compilation of HICP weights in case of large changes in consumer expenditures, Eurostat, Directorate C, Macro-economic statistics, 3.02.2020:
<https://ec.europa.eu/eurostat/documents/10186/10693286/Guidance-on-the-compilation-of-HICP-weights-in-case-of-large-changes-in-consumer-expenditures.pdf>.

Consumer price indices in the context of the COVID-19 crisis

The National CPI, HICP and the PISB for October 2021 have been produced according to Eurostat's methodological guidance on the compilation of the HICP in the context of the COVID-19 crisis, applying the following principles:

- fixed statistical weights used in the calculation of the indices;
- production of all indices according to the ECOICOP classification (European Classification Of Individual Consumption by Purpose);
- minimizing the number of imputed prices and sub-indices where possible;
- estimation of missing price observations by applying imputation methods.

The percentage of missing price observations for October 2021 was 2%, distributed according to ECOICOP main headings as follows:

(Per cent)	
Commodity groups	Missing price observations
00 Total CPI	2
01 Food and non-alcoholic beverages	2
02 Alcoholic beverages and tobacco	1
03 Clothing and footwear	3
04 Housing, water, electricity, gas and other fuels	2
05 Furnishings, household equipment and routine household maintenance	2
06 Health	1
07 Transport	1
08 Communication	3
09 Recreation and culture	3
10 Education	3
11 Restaurants and hotels	1
12 Miscellaneous goods and services	2

The missing price observation's estimation has been carried out by using the imputation methods recommended by Eurostat and agreed with the Member States:

- with the nearest aggregate index (sub-index) in the hierarchical structure of the index (at a product level based on available prices for the same product) - for missing price observations of products that were available on the market;
- carry forward the last observed prices - for some products (e.g. cultural services), where there were reasons to expect that their prices would be the same once the situation would revert back to normal.

Annex

Table 1

Consumer price indices in October 2021

(Per cent)

Commodity groups	Weights	October 2021		
		Previous month = 100	December 2020 = 100	Corresponding month of the previous year = 100
00 Total CPI	100.000	101.8	105.4	106.0
01 Food and non-alcoholic beverages	32.087	101.6	105.9	105.9
02 Alcoholic beverages and tobacco	5.159	100.3	101.1	101.0
03 Clothing and footwear	3.673	108.3	103.2	100.5
04 Housing, water, electricity, gas and other fuels	17.410	103.0	108.6	109.0
05 Furnishings, household equipment and routine household maintenance	5.100	101.1	103.4	103.4
06 Health	8.186	100.2	100.5	100.4
07 Transport	8.966	102.5	118.1	119.7
08 Communication	5.586	99.8	95.4	95.6
09 Recreation and culture	4.306	103.2	97.6	106.9
10 Education	0.588	99.8	104.6	104.4
11 Restaurants and hotels	4.125	100.8	104.5	104.6
12 Miscellaneous goods and services	4.814	100.3	102.7	102.2
Foods	33.455	101.6	105.8	105.8
Non-foods	35.084	103.0	107.5	107.1
Catering	3.908	101.0	104.8	104.9
Services	27.553	100.7	102.2	104.8

Table 2

Harmonized indices of consumer prices in October 2021

Commodity groups	Weights	October 2021			
		2015 = 100	Previous month = 100	December 2020 = 100	Corresponding month of the previous year = 100
	%	%			
00 Total HICP	1000.000	111.35	101.3	104.6	105.2
01 Food and non-alcoholic beverages	239.522	121.92	101.4	105.4	105.5
02 Alcoholic beverages and tobacco	70.808	112.02	100.4	101.3	101.3
03 Clothing and footwear	37.545	99.46	107.7	103.3	100.9
04 Housing, water, electricity, gas and other fuels	123.157	120.59	102.4	107.7	108.1
05 Furnishings, household equipment and routine household maintenance	66.656	105.55	101.4	104.3	104.2
06 Health	82.261	105.24	100.2	100.5	100.4
07 Transport	125.676	103.94	101.5	112.8	115.5
08 Communication	61.112	87.01	99.8	95.4	95.6
09 Recreation and culture	56.863	105.97	101.1	100.2	104.2
10 Education	16.802	125.76	99.7	104.6	104.4
11 Restaurants and hotels	57.146	121.74	100.0	103.6	103.5
12 Miscellaneous goods and services	62.454	116.52	100.2	103.3	102.7

Table 3

Price indices of 100 socially useful and vital for the living goods and services in the small basket for the 20% lowest income households in October 2021

(Per cent)

Commodity groups	Weights	October 2021
		Previous month = 100
Total PISB	100.000	101.7
Food and non-alcoholic beverages	50.368	101.7
Clothing and footwear	3.343	106.8
Housing, water, electricity, gas and other fuels	26.057	102.0
Furnishings, household equipment and routine household maintenance	2.362	100.6
Health	11.318	100.3
Transport	1.324	100.0
Communication	0.236	100.0
Recreation and culture	0.549	101.8
Miscellaneous goods and services	4.443	100.0
Foods	50.368	101.7
Non-foods	26.954	103.1
Services	22.678	100.0