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Harmonized Index of Consumer Prices

May 2023

Prishtina, 09.06.2023: Kosovo Agency of Statistics (KAS) has started to publish the Consumer Price Index (CPI) in September 2002 until December 2015, while from January 2016 the CPI is harmonized according to the international concept and is published as a Harmonized Index of Consumer Prices (HICP). Consumer prices have started to be collected in May 2002 which is considered the base month. From January 2016 the Harmonized Index of Consumer Prices (HICP), based on the recommendations of Eurostat, is published with the base year 2015 = 100 and all time series of the Consumer Price Index (CPI) respectively the Harmonized Index of Consumer Prices (CPI) in the country have been recalculated on this basis and are published on the KAS website (in the annual publication of the Harmonized Index of Consumer Prices 2002 - 2022). Consumer prices are collected from the 10th to the 20th of the month, in 14 municipalities of Kosovo. Since September 2002 KAS has continuously published CPI - HICP on a monthly basis and seventeen publications on an annual basis (2004 - 2022).

This publication contains the table with the Harmonized Index of Consumer Prices in Kosovo on a monthly basis January 2010 – May 2023, annual average 2010-2022 (2015 = 100), with monthly and annual changes in percentage, graphical presentation, table for specific weights, index for May 2023, monthly and annual changes of the harmonized index of consumer prices in percentage (May 2023 / April 2023) and (May 2023 / May 2022) for groups and subgroups according to COICOP, the table with average prices for some consumer goods and the methodology for calculating harmonized consumer price indices.

You can send your suggestions, proposals and remarks to the web address infoask@rks-gov.net

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To consult other publications, visit the KAS website: <http://ask.rks-gov.net>

List of Symbols and Abbreviations

| | |
|--------|---|
| CPI | Consumer Price Index |
| COICOP | Classification of individual consumption by purpose |
| HBS | Household Budget Survey |
| NA | National Accounts |
| HICP | Harmonized Index of Consumer Prices |
| KAS | Kosovo Agency of Statistics |

| | |
|---|--|
| : | Figure not available |
| 0 | Less than half the unit used |
| - | Not applicable |
| % | Percentage |
| ‰ | Promil |
| W | Statistical weights (specific weight – CPI/HICP) |
| Ø | Average |

Harmonized Index of Consumer Prices for the month of May 2023

The monthly inflation measured by the harmonized index of consumer prices was 0.1% in May 2023. The annual inflation rate measured in May 2023 to May 2022 was 5.5%.

May 2023 / April 2023 0.1 %

The total harmonized index of consumer prices is higher by an average of 0.1% in May 2023 compared to April 2023. This is mainly explained by the increase in consumer prices of COICOP subgroups: fruits (0.2%), electricity (0.2%), alcoholic beverages (0.1%), mineral water, soft drinks, fruit and vegetable juices (0.1%), with a common impact of these subgroups by 0.6%.

While the decrease in prices is observed in the COICOP groups and subgroups: fuels and lubricants for personal transport means (-0.3%) and milk, cheese and eggs (-0.1%) with an impact of -0.5 percent on HICP.

May 2023 / May 2022 5.5 %

The total harmonized index of consumer prices is lower by an average of 5.5% percent in May 2023 compared to May 2022.

This is mainly explained by the increase in consumer prices in this period in COICOP groups and subgroups: bread and cereals (0.9%), meat (0.8%), milk, cheese and eggs (0.8%), vegetables (0.5%), electricity (0.5%), non-alcoholic beverages (0.4%), goods and services for common household maintenance (0.3%), transport services (0.3%), fruit (0.2%), sugar, jam, honey, chocolate and sweets (0.2%), soft drinks (0.2%), tobacco (0.2%), solid fuels, firewood, pellets, etc. (0.2%), vehicle purchases (0.2%), hotel services (0.2%), food products (0.1%), clothing (0.1%), home maintenance and repair (0.1%), furniture and furnishings, carpets and rugs other flooring (0.1%), glassware, cutlery and kitchenware (0.1%), home and garden tools and equipment (0.1%), other recreational items and equipment, garden and pets (0.1%) and personal care (0.1%) with a common impact of these subgroups by 6.7%.

While the decrease in prices is observed in COICOP groups and subgroups: fuels and lubricants for personal transport means (-1.2%) with an impact of -1.2 percent on HICP.

Tab. 1: Harmonized Index of Consumer Prices (HICP) January 2010 – May 2023 (2015=100), monthly and annual changes of prices in percent

| Month/Year | Index (2015 = 100) | Monthly inflation % | Annual inflation % |
|----------------------------|--------------------|---------------------|--------------------|
| January | 88,0 | 0,6 | 0,7 |
| February | 88,2 | 0,2 | 1,1 |
| March | 88,1 | -0,1 | 0,8 |
| April | 87,2 | -1,0 | 1,6 |
| May | 87,5 | 0,3 | 2,2 |
| June | 87,6 | 0,1 | 2,2 |
| July | 87,9 | 0,3 | 2,7 |
| August | 90,5 | 3,0 | 6,0 |
| September | 90,8 | 0,3 | 6,0 |
| October | 91,9 | 1,2 | 6,0 |
| November | 92,3 | 0,4 | 6,2 |
| December | 93,2 | 1,0 | 6,5 |
| Annual average 2010 | 89,4 | : | 3,5 |
| January | 94,5 | 1,4 | 7,4 |
| February | 96,5 | 2,1 | 9,4 |
| March | 97,6 | 1,1 | 10,8 |
| April | 96,5 | -1,1 | 10,7 |
| May | 96,5 | 0,0 | 10,3 |
| June | 95,7 | -0,8 | 9,2 |
| July | 95,2 | -0,5 | 8,3 |
| August | 95,3 | 0,1 | 5,3 |
| September | 95,1 | -0,2 | 4,7 |
| October | 96,2 | 1,2 | 4,7 |
| November | 96,2 | 0,0 | 4,2 |
| December | 96,5 | 0,3 | 3,5 |
| Annual average 2011 | 96,0 | : | 7,4 |
| January | 97,3 | 0,8 | 3,0 |
| February | 98,2 | 0,9 | 1,8 |
| March | 98,3 | 0,1 | 0,7 |
| April | 97,6 | -0,7 | 1,1 |
| May | 97,6 | 0,0 | 1,1 |
| June | 97,3 | -0,3 | 1,7 |
| July | 97,3 | 0,0 | 2,2 |
| August | 98,3 | 1,0 | 3,1 |
| September | 99,1 | 0,8 | 4,2 |
| October | 99,9 | 0,8 | 3,8 |
| November | 99,5 | -0,4 | 3,4 |
| December | 100,1 | 0,6 | 3,7 |
| Annual average 2012 | 98,4 | : | 2,5 |
| January | 100,7 | 0,6 | 3,5 |
| February | 100,8 | 0,1 | 2,6 |
| March | 100,8 | 0,0 | 2,5 |
| April | 100,0 | -0,8 | 2,5 |
| May | 99,7 | -0,3 | 2,2 |
| June | 99,9 | 0,2 | 2,7 |
| July | 99,6 | -0,3 | 2,4 |
| August | 99,5 | -0,1 | 1,2 |
| September | 99,3 | -0,2 | 0,2 |
| October | 100,1 | 0,8 | 0,2 |
| November | 100,3 | 0,2 | 0,8 |
| December | 100,6 | 0,3 | 0,5 |
| Annual average 2013 | 100,1 | : | 1,7 |

Tab. 2: Harmonized Index of Consumer Prices (HICP) January 2010 – May 2023 (2015=100), monthly and annual changes of prices in percent (Continued)

| Month/Year | Index (2015 = 100) | Monthly inflation % | Annual inflation % |
|----------------------------|--------------------|---------------------|--------------------|
| January | 100,9 | 0,3 | 0,2 |
| February | 100,9 | 0,0 | 0,1 |
| March | 101,1 | 0,2 | 0,3 |
| April | 100,3 | -0,8 | 0,3 |
| May | 100,2 | -0,1 | 0,5 |
| June | 100,3 | 0,1 | 0,4 |
| July | 100,4 | 0,1 | 0,8 |
| August | 100,4 | 0,0 | 0,9 |
| September | 100,6 | 0,2 | 1,3 |
| October | 100,7 | 0,1 | 0,6 |
| November | 100,4 | -0,3 | 0,1 |
| December | 100,2 | -0,2 | -0,4 |
| Annual average 2014 | 100,5 | : | 0,4 |
| January | 100,3 | 0,1 | -0,6 |
| February | 100,6 | 0,3 | -0,3 |
| March | 100,7 | 0,1 | -0,4 |
| April | 99,9 | -0,8 | -0,4 |
| May | 99,7 | -0,1 | -0,5 |
| June | 99,9 | 0,1 | -0,4 |
| July | 99,6 | -0,2 | -0,8 |
| August | 99,7 | 0,1 | -0,7 |
| September | 99,4 | -0,3 | -1,2 |
| October | 100,0 | 0,6 | -0,7 |
| November | 100,1 | 0,1 | -0,3 |
| December | 100,0 | 0,0 | -0,2 |
| Annual average 2015 | 100,0 | : | -0,5 |
| January | 100,5 | 0,4 | 0,1 |
| February | 100,7 | 0,2 | 0,0 |
| March | 100,8 | 0,1 | 0,1 |
| April | 99,8 | -1,0 | -0,1 |
| May | 99,6 | -0,2 | -0,1 |
| June | 99,6 | -0,1 | -0,3 |
| July | 99,6 | 0,0 | 0,0 |
| August | 99,8 | 0,2 | 0,0 |
| September | 99,9 | 0,2 | 0,6 |
| October | 100,9 | 0,9 | 0,9 |
| November | 101,0 | 0,1 | 0,9 |
| December | 101,3 | 0,4 | 1,3 |
| Annual average 2016 | 100,3 | : | 0,3 |
| January | 102,2 | 0,8 | 1,7 |
| February | 102,3 | 0,2 | 1,7 |
| March | 102,3 | -0,1 | 1,5 |
| April | 102,0 | -0,3 | 2,2 |
| May | 101,2 | -0,8 | 1,5 |
| June | 101,5 | 0,3 | 1,9 |
| July | 101,3 | -0,2 | 1,7 |
| August | 101,5 | 0,2 | 1,7 |
| September | 101,6 | 0,1 | 1,7 |
| October | 101,8 | 0,2 | 0,9 |
| November | 101,8 | 0,1 | 0,9 |
| December | 101,8 | 0,0 | 0,5 |
| Annual average 2017 | 101,8 | : | 1,5 |

Tab. 3: Harmonized Index of Consumer Prices (HICP) January 2010 – May 2023 (2015=100), monthly and annual changes of prices in percent (Continued)

| Month/Year | Index (2015 = 100) | Monthly inflation % | Annual inflation % |
|----------------------------|--------------------|------------------------|-----------------------|
| January | 102,0 | 0,2 | -0,2 |
| February | 102,3 | 0,3 | 0,0 |
| March | 102,4 | 0,1 | 0,1 |
| April | 102,4 | 0,0 | 0,4 |
| May | 102,2 | -0,2 | 1,0 |
| June | 102,3 | 0,1 | 0,8 |
| July | 102,5 | 0,2 | 1,2 |
| August | 103,0 | 0,4 | 1,5 |
| September | 103,1 | 0,1 | 1,4 |
| October | 103,3 | 0,2 | 1,5 |
| November | 103,9 | 0,7 | 2,1 |
| December | 104,8 | 0,8 | 2,9 |
| Annual average 2018 | 102,8 | : | 1,1 |
| January | 105,2 | 0,4 | 3,1 |
| February | 105,6 | 0,4 | 3,2 |
| March | 105,7 | 0,1 | 3,3 |
| April | 105,9 | 0,1 | 3,4 |
| May | 105,7 | -0,2 | 3,4 |
| June | 105,3 | -0,3 | 3,0 |
| July | 105,2 | -0,1 | 2,6 |
| August | 105,7 | 0,5 | 2,7 |
| September | 105,6 | -0,1 | 2,4 |
| October | 105,5 | 0,0 | 2,2 |
| November | 105,7 | 0,2 | 1,7 |
| December | 106,0 | 0,2 | 1,2 |
| Annual average 2019 | 105,6 | : | 2,7 |
| January | 106,8 | 0,8 | 1,5 |
| February | 106,6 | -0,2 | 1,0 |
| March | 106,5 | -0,1 | 0,7 |
| April | 106,2 | -0,3 | 0,3 |
| May | 105,9 | -0,3 | 0,2 |
| June | 105,4 | -0,4 | 0,1 |
| July | 105,1 | -0,3 | -0,1 |
| August | 105,2 | 0,1 | -0,5 |
| September | 105,1 | -0,1 | -0,4 |
| October | 105,3 | 0,2 | -0,2 |
| November | 105,4 | 0,1 | -0,3 |
| December | 106,1 | 0,6 | 0,1 |
| Annual average 2020 | 105,8 | : | 0,2 |
| January | 106,6 | 0,5 | -0,2 |
| February | 107,4 | 0,7 | 0,7 |
| March | 107,8 | 0,4 | 1,2 |
| April | 108,2 | 0,3 | 1,9 |
| May | 107,9 | -0,2 | 2,0 |
| June | 107,9 | 0,0 | 2,4 |
| July | 108,8 | 0,8 | 3,5 |
| August | 110,1 | 1,2 | 4,7 |
| September | 110,2 | 0,1 | 4,9 |
| October | 111,3 | 1,0 | 5,7 |
| November | 112,7 | 1,2 | 6,9 |
| December | 113,2 | 0,5 | 6,7 |
| Annual average 2021 | 109,3 | : | 3,4 |

Tab. 4: Harmonized Index of Consumer Prices (HICP) January 2010 – May 2023 (2015=100), monthly and annual changes of prices in percent (Continued)

| Month/Year | Index (2015 = 100) | Monthly inflation % | Annual inflation % |
|----------------------------|--------------------|------------------------|-----------------------|
| January | 114,2 | 0,9 | 7,1 |
| February | 115,5 | 1,1 | 7,5 |
| March | 118,6 | 2,7 | 10,0 |
| April | 120,3 | 1,5 | 11,2 |
| May | 121,4 | 0,9 | 12,5 |
| June | 123,1 | 1,4 | 14,1 |
| July | 124,2 | 0,9 | 14,2 |
| August | 124,5 | 0,2 | 13,0 |
| September | 124,2 | -0,2 | 12,7 |
| October | 125,4 | 0,9 | 12,7 |
| November | 125,8 | 0,3 | 11,6 |
| December | 126,9 | 0,9 | 12,1 |
| Annual average 2022 | 122,0 : | | 11,6 |
| January | 127,8 | 0,7 | 11,9 |
| February | 128,1 | 0,2 | 11,0 |
| March | 127,6 | -0,4 | 7,6 |
| April | 127,9 | 0,3 | 6,3 |
| Maj | 128,0 | 0,1 | 5,5 |

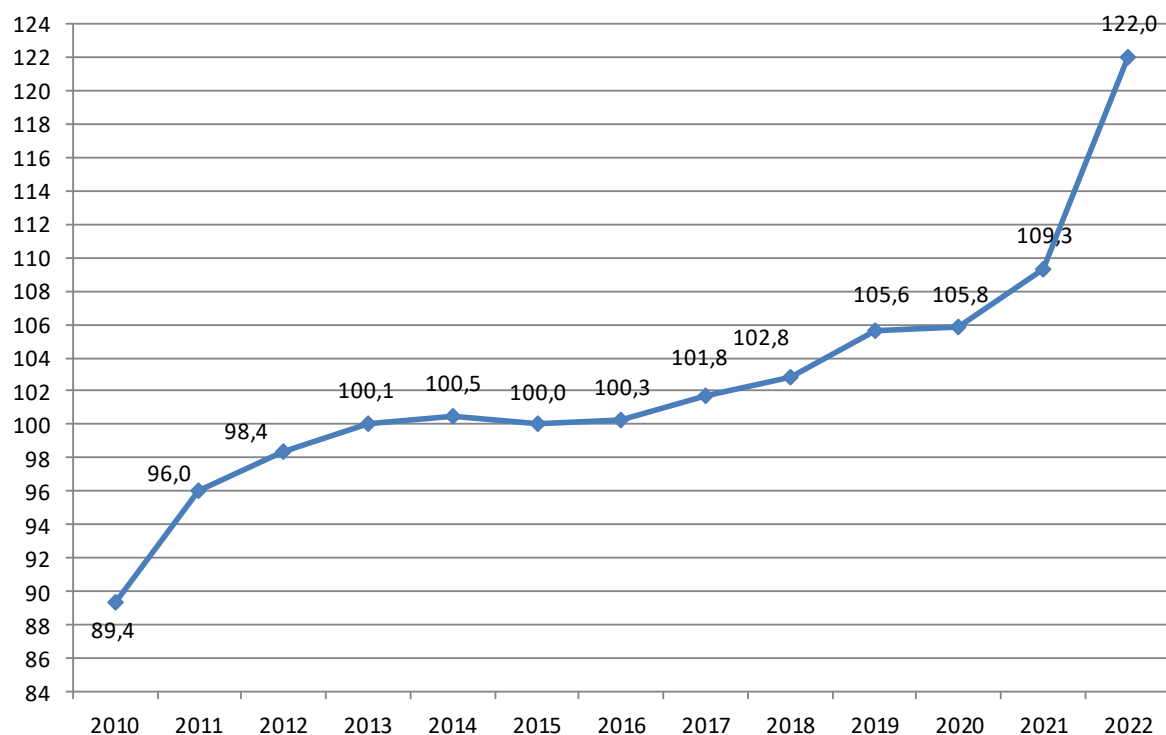
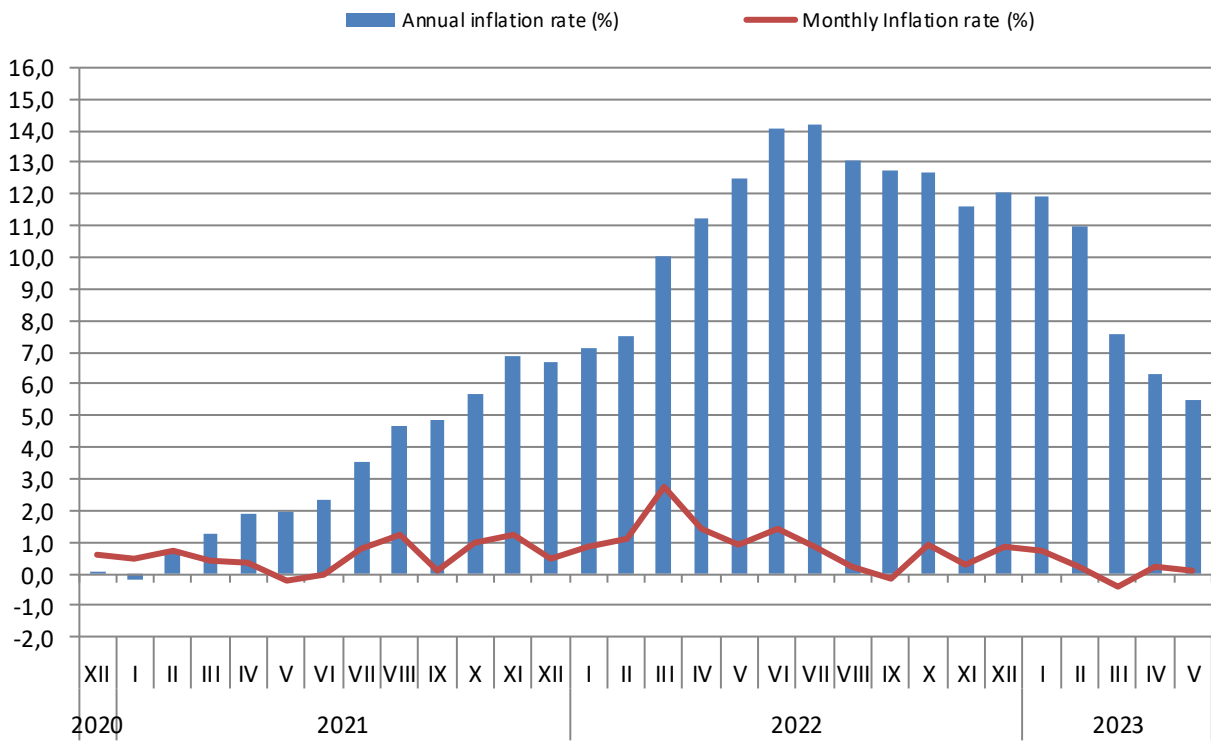
Fig. 1: Harmonized annual index of consumer prices by years 2010 - 2022 (2015=100)

Fig. 2: Annual and monthly inflation rates in percent measured by HICP



Tab. 2: Weights, HICP in May 2023 (2015=100), monthly and annual changes of prices in percent for groups and subgroups according to COICOP

| COICOP | Groups and subgroups | Weight 2022 in ‰ | XI - 2022 2015=100 | <u>XI - 2022</u> X- 2022 | <u>XI - 2022</u> XI - 2021 |
|-------------|---|---------------------|-----------------------|-----------------------------|-------------------------------|
| 00 | Total HICP | 1000,0 | 128,0 | 0,1 | 5,5 |
| 01 | Food and non-alcoholic beverages | 395,7 | 142,9 | 0,2 | 9,4 |
| 01.1 | Food | 337,2 | 146,3 | 0,0 | 10,0 |
| 01.1.1 | Bread and cereals | 89,5 | 161,8 | 0,1 | 9,8 |
| 01.1.2 | Meat | 93,6 | 141,6 | 0,3 | 8,1 |
| 01.1.3 | Fish | 4,1 | 126,1 | 1,5 | 9,5 |
| 01.1.4 | Milk, cheese and eggs | 57,9 | 150,4 | -2,5 | 13,2 |
| 01.1.5 | Oils and fats | 10,1 | 176,6 | -1,4 | -14,7 |
| 01.1.6 | Fruits | 23,3 | 97,0 | 8,3 | 9,0 |
| 01.1.7 | Vegetables | 34,7 | 137,9 | -2,4 | 14,9 |
| 01.1.8 | Sugar, jam, honey, chocolate and confectionery | 13,7 | 145,4 | 0,8 | 12,3 |
| 01.1.9 | Food products n.e.c. | 10,3 | 135,5 | 1,1 | 12,5 |
| 01.2 | Non-alcoholic beverages | 58,5 | 125,8 | 1,0 | 6,2 |
| 01.2.1 | Coffee, tea and cocoa | 13,1 | 155,6 | 0,1 | 6,0 |
| 01.2.2 | Mineral waters, soft drinks, fruit and vegetable juices | 45,4 | 118,6 | 1,3 | 6,3 |
| 02 | Alcoholic beverages, tobacco | 60,7 | 134,5 | 1,1 | 6,5 |
| 02.1 | Alcoholic beverages | 23,6 | 127,2 | 2,8 | 8,9 |
| 02.2 | Tobacco | 37,1 | 141,4 | 0,0 | 5,0 |
| 03 | Clothing and footwear | 41,9 | 105,2 | 0,0 | 2,7 |
| 03.1 | Clothing | 31,1 | 103,9 | 0,2 | 2,3 |
| 03.2 | Footwear | 10,8 | 109,4 | -0,8 | 3,9 |
| 04 | Housing, water, electricity, gas and other fuels | 73,3 | 120,9 | 2,4 | 10,7 |
| 04.1 | Actual rentals for housing | 5,5 | 98,6 | 0,0 | 1,3 |
| 04.3 | Maintenance and repair of the dwelling | 7,5 | 127,5 | 0,3 | 10,5 |
| 04.4 | Water supply and miscellaneous services relating to the dwelling | 10,4 | 102,3 | 0,0 | 1,4 |
| 04.5 | Electricity, gas and other fuels | 49,9 | 124,7 | 3,6 | 13,5 |
| 04.5.1 | Electricity | 28,3 | 104,8 | 7,5 | 16,9 |
| 04.5.2 | Gas | 3,8 | 136,7 | -1,0 | -13,4 |
| 04.5.4 | Solid fuels | 15,6 | 165,7 | -2,3 | 14,4 |
| 04.5.5 | Heat energy | 2,2 | 91,8 | 0,0 | 0,0 |
| 05 | Furnishing, household equipment and routine maintenance of the house | 75,1 | 118,3 | 0,6 | 7,8 |
| 05.1 | Furniture and furnishings, carpets and other floor coverings | 16,7 | 112,3 | 0,0 | 5,2 |
| 05.2 | Household textiles | 3,2 | 108,3 | 0,9 | 7,6 |
| 05.3 | Household appliances | 13,7 | 113,0 | 0,4 | 2,6 |
| 05.4 | Glassware, tableware and household utensils | 13,6 | 113,3 | 0,1 | 6,5 |
| 05.5 | Tools and equipment for house and garden | 12,5 | 121,9 | 0,6 | 4,8 |
| 05.6 | Goods and services for routine household maintenance | 15,4 | 133,8 | 1,7 | 18,9 |

Tab. 2: Weights, HICP in May 2023 (2015=100), monthly and annual changes of prices in percent for groups and subgroups according to COICOP (Continued)

| COICOP | Groups and subgroups | Weight 2022 in % | XI - 2022 2015=100 | <u>XI - 2022</u> X - 2022 | <u>XI - 2022</u> XI - 2021 |
|-------------|---|------------------|-----------------------|------------------------------|-------------------------------|
| 06 | Health | 25,7 | 113,5 | 0,0 | 1,7 |
| 06.1 | medical products, appliances and equipment | 14,6 | 114,3 | 0,0 | 2,4 |
| 06.1.1 | Pharmaceutical products | 11,6 | 115,0 | 0,0 | 2,4 |
| 06.1.2 | Other medical products | 0,8 | 109,4 | 0,0 | 1,6 |
| 06.1.3 | Therapeutic appliances and equipment | 2,2 | 114,6 | 0,0 | 2,8 |
| 06.2 | Out-patient services | 9,6 | 113,4 | 0,0 | 0,4 |
| 06.3 | Hospital services | 1,5 | 103,6 | 0,0 | 3,0 |
| 07 | Transport | 159,1 | 121,5 | -1,8 | -4,4 |
| 07.1 | Purchase of vehicles | 58,1 | 112,0 | 0,8 | 4,1 |
| 07.2 | Operation of personal transport equipment | 79,5 | 123,0 | -4,0 | -14,0 |
| 07.2.1 | Spare parts and accessories for personal transport equipment | 10,6 | 113,6 | 0,1 | 6,5 |
| 07.2.2 | Fuels and lubricants for personal transport equipment | 59,5 | 122,2 | -5,4 | -19,4 |
| 07.2.3 | Maintenance and repair of personal transport equipment | 4,0 | 128,6 | 0,0 | 10,4 |
| 07.2.4 | Other services in respect of personal transport equipment | 5,4 | 139,3 | 0,0 | 1,6 |
| 07.3 | Transport services | 21,5 | 132,6 | -0,4 | 13,8 |
| 08 | Communication | 36,2 | 114,5 | 0,0 | -0,6 |
| 08.1 | Postal services | 2,5 | 104,6 | 0,0 | 0,0 |
| 08.2 | Telephone and telefax equipment | 4,6 | 77,8 | 0,0 | -6,4 |
| 08.3 | Telephone and telefax services | 29,1 | 121,9 | 0,0 | 0,3 |
| 09 | Recreation and culture | 41,5 | 102,9 | 0,5 | 2,9 |
| 09.1 | Audio-visual, photographic and information processing equipment | 10,4 | 85,7 | 0,2 | -3,8 |
| 09.2 | Other major durables for recreation and culture | 1,5 | 108,5 | 0,0 | 4,9 |
| 09.3 | Other recreational items and equipment, gardens and pets | 7,3 | 115,2 | 0,3 | 7,8 |
| 09.4 | Recreational and cultural services | 5,5 | 108,0 | 0,0 | 4,8 |
| 09.5 | Newspapers, books and stationery | 10,5 | 105,7 | 0,8 | 3,0 |
| 09.6 | Package Holidays | 6,3 | 108,8 | 1,4 | 6,2 |
| 10 | Education | 12,7 | 104,9 | 0,0 | 2,3 |
| 11 | Restaurants and hotels | 35,7 | 126,9 | 0,1 | 6,8 |
| 11.1 | Catering services | 32,6 | 128,6 | 0,1 | 7,4 |
| 11.2 | Accommodation services | 3,1 | 113,8 | 0,0 | 0,0 |
| 12 | Miscellaneous goods and services | 42,4 | 116,8 | 0,0 | 4,4 |
| 12.1 | Personal care | 15,5 | 119,3 | -0,1 | 7,7 |
| 12.3 | Personal effects n.e.c. | 7,8 | 119,9 | 0,1 | 5,3 |
| 12.4 | Social protection | 0,7 | 120,1 | 0,0 | 7,8 |
| 12.5 | Insurance | 7,2 | 122,1 | 0,0 | -0,2 |
| 12.6 | Financial services n.e.c. | 8,9 | 109,1 | 0,0 | 1,8 |
| 12.7 | Other services n.e.c. | 2,3 | 100,2 | 0,8 | 0,8 |

Tab. 3: Average price in Euro for some consumer goods and services

| Code | Item | Unit Mesaure | II 2023 | III 2023 | IV 2023 |
|-------|----------------------------------|------------------|------------|-------------|------------|
| 101 | Rice | 1 kg | 1,63 | 1,61 | 1,63 |
| 102 | Wheat flour | 1 kg | 0,84 | 0,84 | 0,84 |
| 103 | White bread | 500 gr | 0,51 | 0,51 | 0,51 |
| 111 | Beef meat | 1 kg | 8,93 | 8,97 | 8,97 |
| 112 | Veal meat | 1 kg | 9,89 | 9,91 | 9,88 |
| 114 | Chicken | 1 kg | 4,12 | 4,14 | 4,19 |
| 131 | Milk (tetrapak) | 1 lit | 1,26 | 1,25 | 1,26 |
| 133 | Yoghurt | 1 lit | 1,18 | 1,16 | 1,14 |
| 137 | Eggs | 30 copë | 4,07 | 3,90 | 3,35 |
| 141 | Edible oils | 1 lit | 1,92 | 1,88 | 1,82 |
| 151 | Apple | 1 kg | 0,78 | 0,77 | 0,90 |
| 152 | Pears | 1 kg | 1,58 | 1,62 | 1,67 |
| 153 | Bananas | 1 kg | 1,74 | 1,62 | 1,58 |
| 155 | Limon | 1 kg | 1,38 | 1,33 | 1,40 |
| 161 | Potatoes | 1 kg | 0,74 | 0,74 | 0,87 |
| 162 | Tomatoes | 1 kg | 1,68 | 1,63 | 1,30 |
| 163 | Beans | 1 kg | 3,20 | 3,17 | 3,30 |
| 167 | Pepper | 1 kg | 2,58 | 2,53 | 1,83 |
| 175 | Sugar | 1 kg | 1,15 | 1,15 | 1,16 |
| 192 | Ground coffee | 1 kg | 11,71 | 11,71 | 11,72 |
| 193 | Tea | 1 kg | 9,36 | 9,39 | 9,44 |
| 195/1 | Natural water | 1.5 lit | 0,33 | 0,33 | 0,35 |
| 196 | Coca cola | 2 lit | 1,39 | 1,42 | 1,43 |
| 197 | Fruit juice | 1 lit | 1,02 | 1,02 | 1,03 |
| 204 | Beer | 0.5 lit | 0,72 | 0,74 | 0,76 |
| 216 | Cigarettes - Ronson | 1 pako | 2,01 | 2,01 | 2,01 |
| 217 | Cigarettes - Marlboro | 1 pako | 2,99 | 2,99 | 2,99 |
| 416 | Electricity (without fixed cost) | 1 kwh | 0,06 | 0,06 | 0,07 |
| 418 | Firewood | 1 m ³ | 56,66 | 56,42 | 55,10 |
| 701 | Petrol | 1 lit | 1,35 | 1,35 | 1,30 |
| 702 | Diesel | 1 lit | 1,39 | 1,36 | 1,25 |

Additional comment: Due to the review of specific weights (which are still in process and require time) at the level of items and services and the very nature of the work (monthly frequency) presents the need to continue with the weights we used during 2022.

Methodological explanations

Definitions

HICP Kosovo, produced by Kosovo Agency of Statistics (KAS), is produced by methods of the Harmonized Index of Consumer Prices (HICP). Eurostat has defined the HICP as the European standard of consumer price indices. Index calculated and their results are presented by Classification of Individual Consumption by Purpose (COICOP), the international classification which classifies consumption in divisions, groups and classes of items. By COICOP, KAS has allocated 91 classes of defined consumption (at 4-digit level) further to 420 products (elementary aggregate). KAS has defined aggregation weight for each element and each month collects prices for each elementary aggregate.

Each month the HICP is calculated in two steps:

1. Elementary indices (elementary aggregate indicator) calculated from the collected prices by using the formula of unweighted geometric average (Jevon).
2. The indices of the highest level, including the HICP itself, are calculated by averaging the elementary indices by formula of weighted arithmetic average (Laspeyres).

Aggregate elementary weights are based on estimates of annual consumption expenditures. KAS, for 91 classes of consumption, estimates annual consumption expenditures from the Household Budget Survey (HBS) and National Accounts (NA); the weights within consumer classes come from KAS's internal resources. The specific weights, as of January 2013, were based on estimates of Household Budget Surveys (HBS) and National Accounts (NA) data referring to 2012, and since January 2015, specific refreshed weights are based on data from National Accounts (NA) and the Household Budget Survey (HBS) of 2013. From January 2016, the specific weights for items and services harmonized according to E-coicop (recommendations from Eurostat) are based on National Accounts data (NA) and the 2014 Household Budget Survey (HBS). As of January 2017, specific items and services weights are based on the National Accounts (NA) data for 2015. As of January 2018, specific items and services weights are based on the National Accounts (NA) data of 2016. As of January 2019, specific items and services weights are based on the National Accounts (NA) data of 2017. As of January 2020, specific items and services weights are based on the National Accounts (NA) data of 2018. As of January 2021, specific items and services weights are based on the National Accounts (NA) data of 2019. Annually updated weighing ensures that the HICP reflects current consumer trends. Annually updated weighing ensures that the HICP reflects current consumer trends.

Total annual consumption expenditure is defined as all domestic (within-country) monetary purchases of the household sector. This matches the NA category called Household Final Monetary Consumption (HFMC) and means the weights must exclude the value of consumption of own production and costs for owner occupied housing.

Until December 2014 the weights included expenditure of only domestic consumers, while from January 2015 are also include expenditure of non-resident consumers.

To estimate monthly price change, KAS staff collect prices for a set of specific items (often called a market basket) chosen to represent the elementary aggregates. The goal is to collect all prices of exactly the same items every month; whenever a price cannot be collected, carefully developed procedures must be applied to avoid a biased result.

KAS data collectors, who are based in seven regional centers, collect approximately 6800 prices during the period of 10th - 20th of each month. They obtain prices in stores, markets, service enterprises and other retail outlets in fourteen municipalities of Kosovo:

- Gjakovë
- Gjilan
- Istog
- Kaçanik
- Kamenicë
- Mitrovicë
- Rahovec
- Pejë
- Podujevë
- Prishtinë
- Prizren
- Suharekë
- Ferizaj
- Vushtrri

The KAS central office staff in Prishtina collects prices for items such as electricity, water, postal and telecom services, and rail transport.

Elementary Indexes

Elementary index for a month is equal to its index in the previous month multiplied by the price change measured on a monthly basis, calculated from collected prices. KAS uses the geometric mean formula (Jevon) to calculate monthly changes: geometric average rate of the current month in geometric average price collected for the previous month.

Index for elementary aggregate e for month m

- Price index for elementary aggregate e for month m
- Price index for elementary aggregate e in month m-1
- Price for item i in month m
- Price for item i in month m-1
- Number of collected prices for elementary aggregate e

Higher-level indexes

In Kosovo's HICP, indexes are calculated first for groups (of elementary aggregates) and these are combined to obtain the total HICP.

Higher-level indexes are weighted by arithmetic averages of elementary indexes. In the current CPI, which uses the Young formula until December 2013, the weights are shares of the unadjusted weight-period expenditures. Since January 2014, the index will use the Lowe formula, with weights that are shares of weight-period expenditures that have been updated for price change. (The Lowe formula is closer to the actual Laspeyres formula).

Both the Young and Lowe formulas are weighted by arithmetic averages with weights that are shares of consumption expenditure and so both are Laspeyres-type index formulas. Currently HICP uses the Young index formula whose weights are shares of expenditures during the weight period (year 2010). New weights from NA data and from the 2012 HBS and are applied since January 2014. CPI has passed in calculating indexes by Lowe's formula; (the weights were part of the 2012 expenditures calculated with the price changes of December of 2013. From January 2015, are applied specific weights from NA and HBS data for 2013 calculated with the price changes of December 2014. From January 2016, the specific weights are based on the data of the National Accounts (NA) and from the Household Budget Survey (HBS) of 2014 calculated with the price changes of December 2015. From January 2017, specific items and services weights are based on the National Accounts (NA) data for 2015 calculated with the price changes of December 2016. From January 2018, the specific items and services weights are

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Index weights

Young formula weights for elementary aggregates within groups

$$w_{e,g}^b = \frac{x_e^b}{\sum_{e=1}^{k_g} x_e^b} \quad \sum_{e=1}^{k_g} w_{e,g}^b = 1$$

$w_{e,g}^b$ = Weight for elementary aggregate e within group g in weight-period b

x_e^b = expenditure for elementary aggregate e in weight-period b (Currently $b = 2012$)

k_g = Number of elementary aggregates in group g

Young's formula weights the groups within the overall HICP

$$w_g^b = \frac{\sum_{e=1}^{k_g} x_e^b}{\sum_{g=1}^h \sum_{e=1}^{k_g} x_e^b} \quad \sum_{g=1}^h w_g^b = 1$$

w_g^b = Weight for group g in weight period b

h = Number of groups in CPI

Lowé Formula Weights for Elementary Aggregates within Groups

$$w_{e,g}^b = \frac{x_e^b \times a_e^{b \rightarrow v}}{\sum_{e=1}^{k_g} (x_e^b \times a_e^{b \rightarrow v})} \quad \sum_{e=1}^{k_g} w_{e,g}^b = 1$$

$w_{e,g}^b$ = Weight for elementary aggregate e within group g in weight-period b
(Effective January 2014, $b = 2012$)

$a_e^{b \rightarrow v}$ = weight adjustment factor for elementary aggregate e

$$a_e^{b \rightarrow v} = I_e^v / \frac{1}{12} \left(\sum_{m=Jan}^{Dec} I_e^{m/b} \right)$$

I_e^v = Price index for elementary aggregate e for month v

(Effective January 2014, $v =$ December 2013)

$I_e^{m/b}$ = Price index for elementary aggregate e in month m in year b

Low Formula Weights for Group within Overall-CPI

$$w_g^b = \frac{\sum_{e=1}^{k_g} (x_e^b \times a_e^{b \rightarrow v})}{\sum_{g=1}^h \sum_{e=1}^{k_g} (x_e^b \times a_e^{b \rightarrow v})} \quad \sum_{g=1}^h w_{e,g} = 1$$

Indexes for higher-level groups

$$I_g^m = \sum_{e=1}^{k_g} w_{e,g}^b * I_e^m \quad I_e^0 = 100$$

period 0 is May 2002 for most items,

but later for items that entered at a later date

Total HICP

Total HICP is a weighted arithmetic average of the indexes of groups. CPI used in the formula of Young, but since January 2014 has passed in using Low formula.

Because the groups have different bases indexed (most have a base May 2002 = 100, but the groups added later have otherwise, since January 2016 the indices are calculated with base year 2015 = 100), indices of groups should be re-based on a common period, which is the month v (previous month before new weights being put into use).

$$\text{HICP}^m = \text{HICP}^v \times \sum_{\varepsilon=1}^h w_{\varepsilon}^b \times \frac{I_{\varepsilon}^m}{I_{\varepsilon}^v} \quad \text{HICP}^0 = 100$$

HICP^m = Harmonized index of consumer prices for the month m

v = previous month before new weights being put into use. (Currently v = December 2020)

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