Consumer Price Index (CPI): November 2022

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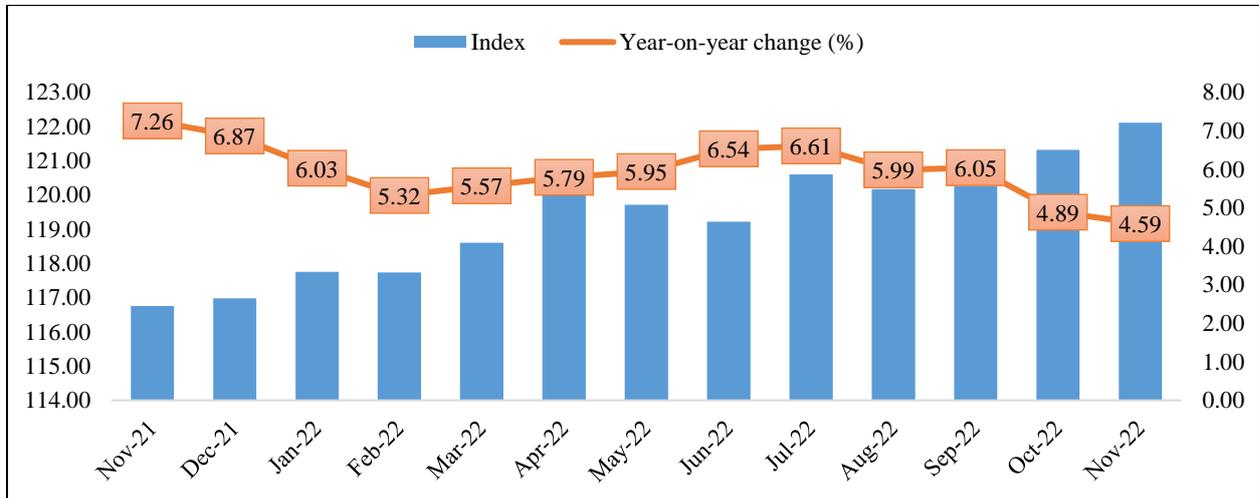
The price of consumer goods and services increased by 4.59 percent in November 2022 compared to the same month last year. Rate of increase dropped for both food and non-food with 2.26 percent and 6.62 percent respectively compared to the October month. Transport was the main driver with 11.80 percent increase, contributing 39 percent of the overall inflation followed by food & non-alcoholic beverages recording 2.24 percent increase, contributing 22 percent to the overall inflation. Clothing and footwear recorded the second highest increase among the 12 major divisions with 7.28 percent, contributing to 10 percent to the overall inflation.

Month-on-month CPI in November is 0.66 percent, which is an increase from October. Both the food and non-food prices increased in comparison to the previous month, the increase being 1.12 percent and 0.27 percent respectively. Except for the housing and utilities which decreased by 0.04 percent, the prices of all the other eleven major divisions have increased.
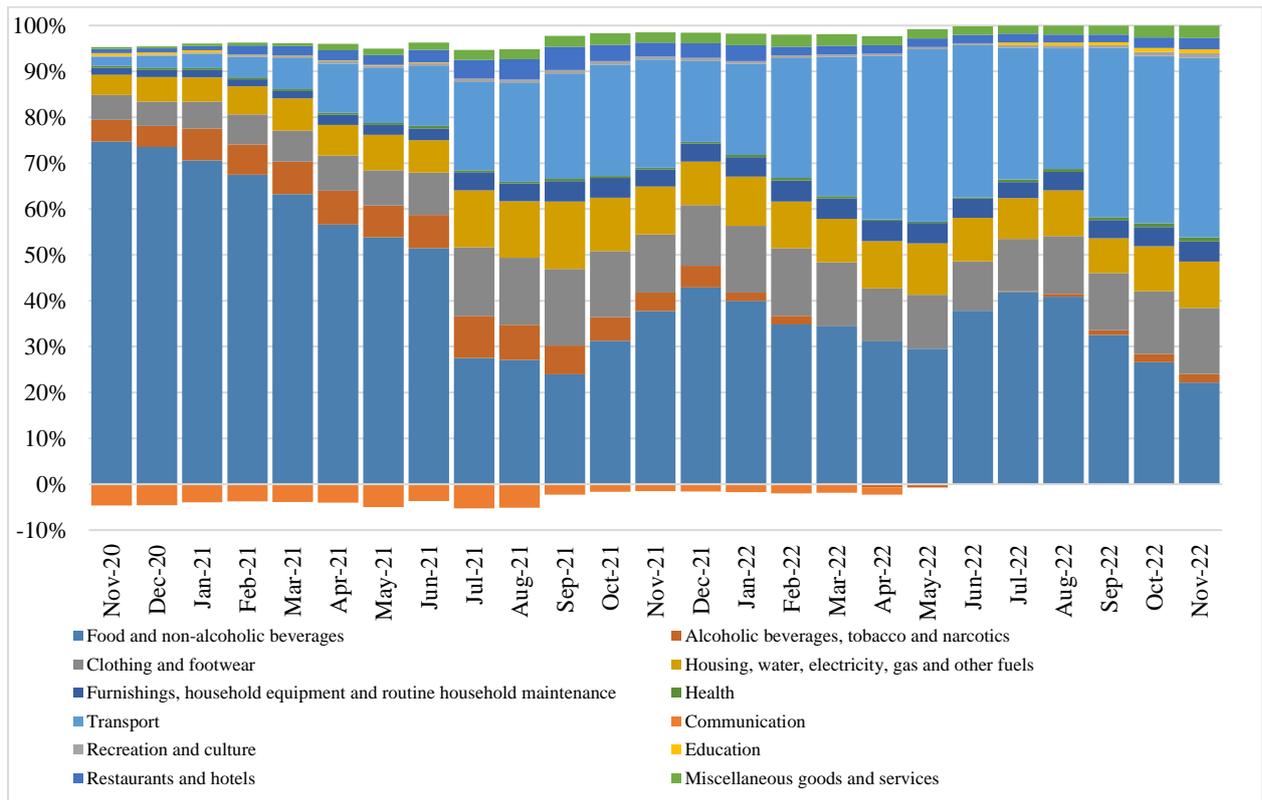
Annual inflation rate
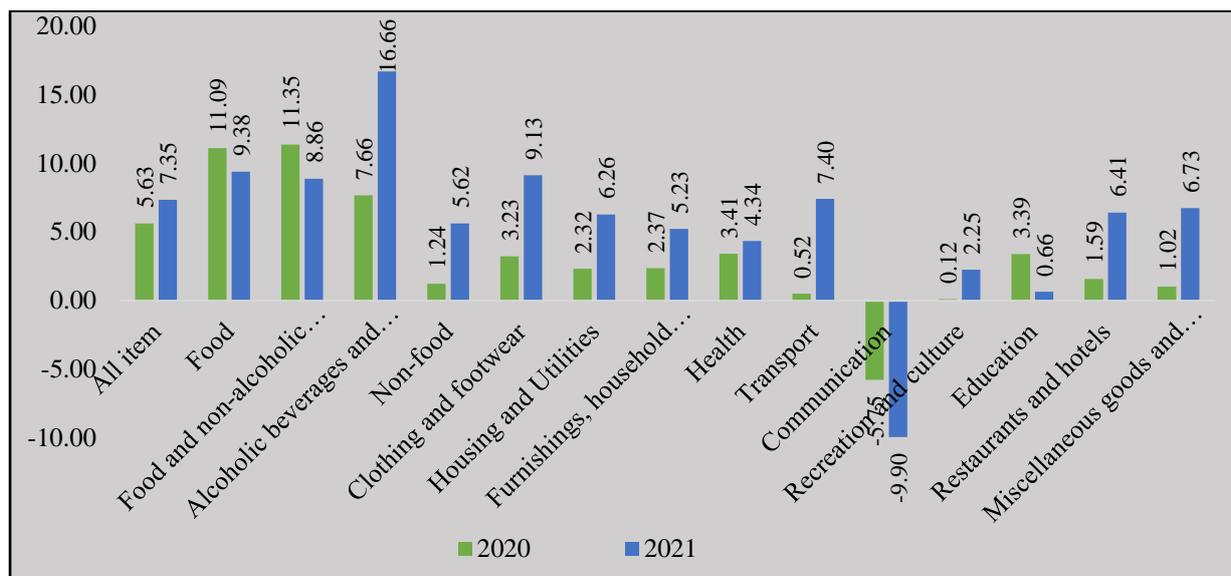
The prices of household goods and services increased by 7.35 percent from 2020 to 2021. This was an increase of 1.72 percentage point compared to 5.63 percent increase in 2020. The higher rate in 2021 was due to increase in the non-food by 5.62 percent compared to 1.24 percent increase in 2020.

Food prices contributed to about 60 percent of the overall inflation rate in 2021 and non-food contributing to 40 percent of the total increase. In 2020, food prices were the main driver of the inflation rate contributing to almost 90 percent of the total increase.

Among the 12 major division, food & alcoholic beverages contributed to more than 50 percent of the total increase in 2021, followed by transport with about 15 percent and clothing & footwear with about 11 percent contribution to the total increase.

Alcoholic beverages and betel nuts recorded the highest increase with 16.66 percent while education fees recorded the lowest increase with 0.66 percent in 2021. All other divisions recorded an increase except for communication which dropped by 9.90 percent.

Graph 1: Percent contribution to overall change by Division

Legend:
- Food and non-alcoholic beverages
- Alcoholic beverages, tobacco and narcotics
- Clothing and footwear
- Housing, water, electricity, gas and other fuels
- Furnishings, household equipment and routine household maintenance
- Health
- Transport
- Communication
- Recreation and culture
- Education
- Restaurants and hotels
- Miscellaneous goods and services

Graph 2: Percent change by Division

Year-on-year percent change

Division	Value
All item	4.59
Food	2.26
Food and non-alcoholic…	2.24
Alcoholic beverages and…	2.52
Non-food	6.62
Clothing and footwear	7.28
Housing and Utilities	4.22
Furnishings, household…	4.79
Health	5.62
Transport	11.80
Communication	0.14
Recreation and culture	2.29
Education	3.15
Restaurants and hotels	3.38
Miscellaneous goods and…	6.83

Month-on-month percent change

Division	Value
All item	0.66
Food	1.12
Food and non-alcoholic beverages	1.18
Alcoholic beverages and betel nuts	0.31
Non-food	0.27
Clothing and footwear	0.00
Housing and utilities	-0.04
Furnishings, household…	0.00
Health	0.00
Transport	0.97
Communication	0.00
Recreation and culture	0.00
Education	0.00
Restaurants and hotels	0.00
Miscellaneous goods and services	0.00

Table 1: Index (April 2019 = 100)

Division	Weight (%)	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22
All item	**100.00**	**119.22**	**120.61**	**120.17**	**120.55**	**121.32**	**122.12**
Food	**45.95**	**125.03**	**126.42**	**125.67**	**125.22**	**126.22**	**127.66**
Food and non-alcoholic beverages	42.78	124.98	126.44	125.62	125.15	126.17	127.22
Alcoholic beverages and betel nuts	3.17	125.65	126.19	126.32	126.08	126.82	125.22
Non-food	**54.05**	**114.50**	**115.87**	**115.69**	**116.73**	**117.30**	**115.69**
Clothing and footwear	9.17	120.49	124.08	124.11	124.11	125.22	116.57
Housing and Utilities	11.57	114.30	115.85	116.09	115.07	115.73	115.45
Furnishings, household equipment and routine household maintenance	4.44	114.21	115.30	115.55	115.55	116.57	127.54
Health	0.81	110.95	113.83	114.15	114.15	115.45	83.77
Transport	15.63	122.67	122.96	121.94	126.58	126.32	105.27
Communication	3.25	83.74	83.62	83.62	83.62	83.77	108.05
Recreation and culture	2.30	103.82	104.17	104.25	104.25	105.27	112.80
Education	1.35	104.75	108.05	108.05	108.05	108.05	119.45
Restaurants and hotels	3.62	110.65	112.15	112.19	112.19	112.80	122.12
Miscellaneous goods and services	1.92	114.24	115.88	116.08	116.08	119.45	127.66

Table 2: Year-on-year percent change

Division	Weight (%)	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22
All item	**100.00**	**6.54**	**6.61**	**5.99**	**6.05**	**4.89**	**4.59**
Food	**45.95**	**5.13**	**5.82**	**5.20**	**4.24**	**2.87**	**2.26**
Food and non-alcoholic beverages	42.78	5.53	6.24	5.52	4.42	2.89	2.24
Alcoholic beverages and betel nuts	3.17	-0.20	0.25	1.08	1.80	2.62	2.52
Non-food	**54.05**	**7.75**	**7.29**	**6.66**	**7.61**	**6.63**	**6.62**
Clothing and footwear	9.17	7.80	8.21	8.24	8.24	7.28	7.28
Housing and Utilities	11.57	5.61	5.29	5.37	4.15	4.37	4.22
Furnishings, household equipment and routine household maintenance	4.44	6.41	5.48	5.71	5.71	4.79	4.79
Health	0.81	2.33	4.73	5.02	5.02	5.62	5.62
Transport	15.63	14.72	12.79	10.51	14.92	11.74	11.80
Communication	3.25	-0.20	-0.04	-0.04	-0.04	0.14	0.14
Recreation and culture	2.30	1.47	1.66	1.73	1.73	2.29	2.29
Education	1.35	0.00	3.15	3.15	3.15	3.15	3.15
Restaurants and hotels	3.62	3.39	3.66	2.94	2.94	3.38	3.38
Miscellaneous goods and services	1.92	6.72	6.44	6.52	6.52	6.83	6.83

Table 3: Month-on-month percent change

Division	Weights (%)	Jun-22	Jul-22	Aug-22	Sep-22	Oct-22	Nov-22
All item	**100.00**	**-0.41**	**1.16**	**-0.36**	**0.32**	**0.63**	**0.66**
Food	**45.95**	**-0.93**	**1.12**	**-0.60**	**-0.36**	**0.80**	**1.12**
Food and non-alcoholic beverages	42.78	-0.95	1.17	-0.65	-0.37	0.81	1.18
Alcoholic beverages and betel nuts	3.17	-0.53	0.43	0.11	-0.19	0.58	0.31
Non-food	**54.05**	**0.02**	**1.20**	**-0.16**	**0.90**	**0.49**	**0.27**
Clothing and footwear	9.17	0.00	2.98	0.03	0.00	0.89	0.00
Housing and utilities	11.57	-0.42	1.36	0.21	-0.87	0.57	-0.04
Furnishings, household equipment and routine household maintenance	4.44	0.01	0.96	0.22	0.00	0.88	0.00
Health	0.81	0.00	2.60	0.28	0.00	1.14	0.00
Transport	15.63	0.38	0.24	-0.83	3.81	-0.21	0.97
Communication	3.25	0.00	-0.14	0.00	0.00	0.17	0.00
Recreation and culture	2.30	0.00	0.34	0.07	0.00	0.98	0.00
Education	1.35	0.00	3.15	0.00	0.00	0.00	0.00
Restaurants and hotels	3.62	0.05	1.35	0.04	0.00	0.54	0.00
Miscellaneous goods and services	1.92	0.00	1.44	0.18	0.00	2.90	0.00

Table 4: Annual Index (April 2019= 100)

Division	Weights (%)	2015	2016	2017	2018	2019	2020	2021
All item	**100.00**	**87.65**	**90.47**	**94.95**	**97.54**	**100.20**	**105.84**	**113.62**
Food	**45.95**	**83.06**	**86.26**	**92.37**	**96.93**	**100.26**	**111.38**	**121.83**
Food and non-alcoholic beverages	42.78	82.49	85.81	92.21	96.76	100.29	111.67	121.57
Alcoholic beverages and betel nuts	3.17	90.27	91.98	94.45	98.94	99.86	107.51	125.43
Non-food	**54.05**	**90.84**	**93.39**	**96.72**	**97.95**	**100.15**	**101.39**	**107.09**
Clothing and footwear	9.17	89.75	92.42	95.85	98.35	100.04	103.27	112.70
Housing and Utilities	11.57	87.91	90.74	96.37	97.73	100.20	102.52	108.94
Furnishings, household equipment and routine household maintenance	4.44	93.43	95.16	96.48	98.06	100.57	102.95	108.34
Health	0.81	94.23	94.98	95.97	97.85	100.33	103.76	108.26
Transport	15.63	92.81	96.28	98.11	97.42	100.07	100.59	108.03
Communication	3.25	99.65	99.70	99.71	99.79	100.02	94.27	84.93
Recreation and culture	2.30	98.60	98.02	99.18	99.60	99.93	100.04	102.29
Education	1.35	86.81	92.78	96.22	99.41	100.64	104.05	104.75
Restaurants and hotels	3.62	84.31	87.00	89.13	94.29	99.42	101.00	107.48
Miscellaneous goods and services	1.92	92.14	94.42	96.29	98.43	100.05	101.07	107.88

Table 5: Annual percent change

Division	Weight (%)	Percent change						
		2015	2016	2017	2018	2019	2020	2021
All item	**100.00**	**4.55**	**3.22**	**4.96**	**2.72**	**2.73**	**5.63**	**7.35**
Food	**45.95**	**3.22**	**3.86**	**7.09**	**4.93**	**3.44**	**11.09**	**9.38**
Food and non-alcoholic beverages	42.78	3.27	4.02	7.46	4.94	3.64	11.35	8.86
Alcoholic beverages and betel nuts	3.17	2.54	1.90	2.68	4.75	0.94	7.66	16.66
Non-food	**54.05**	**5.44**	**2.80**	**3.56**	**1.28**	**2.24**	**1.24**	**5.62**
Clothing and footwear	9.17	4.32	2.97	3.71	2.61	1.72	3.23	9.13
Housing and Utilities	11.57	6.45	3.22	6.21	1.41	2.53	2.32	6.26
Furnishings, household equipment and routine household maintenance	4.44	3.20	1.85	1.39	1.63	2.56	2.37	5.23
Health	0.81	2.77	0.80	1.05	1.96	2.54	3.41	4.34
Transport	15.63	8.51	3.73	1.90	-0.70	2.72	0.52	7.40
Communication	3.25	-1.71	0.05	0.01	0.08	0.23	-5.75	-9.90
Recreation and culture	2.30	1.18	-0.58	1.18	0.42	0.33	0.12	2.25
Education	1.35	6.55	6.88	3.71	3.31	1.24	3.39	0.66
Restaurants and hotels	3.62	7.35	3.19	2.44	5.79	5.44	1.59	6.41
Miscellaneous goods and services	1.92	3.80	2.48	1.98	2.23	1.65	1.02	6.73

Chart 5: Purchasing Power of Ngultrum (PPN)
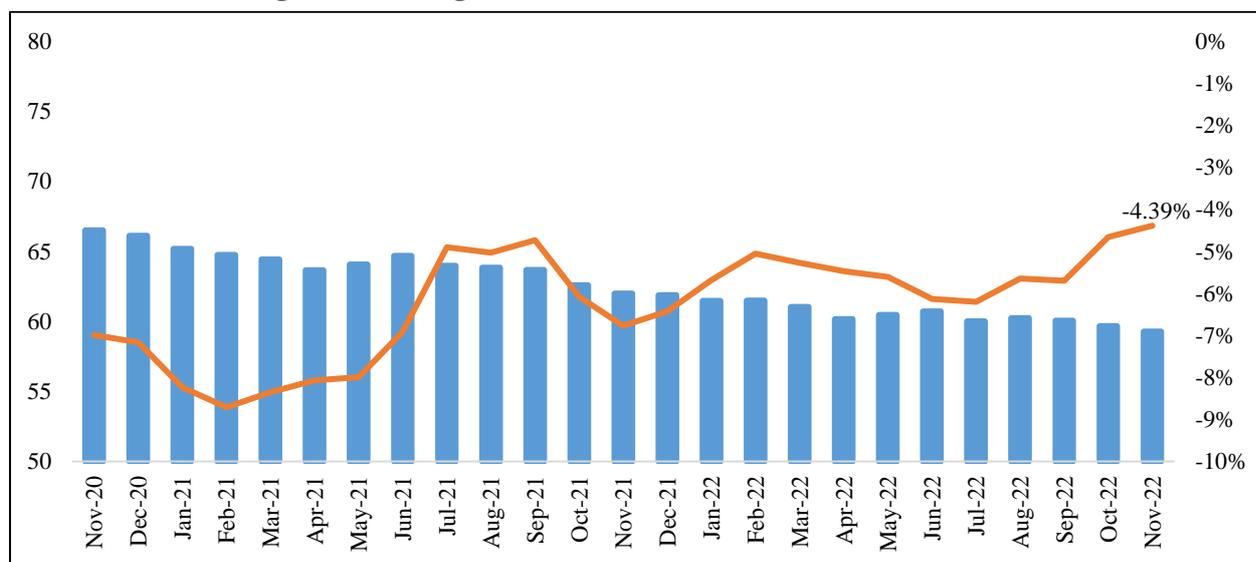
The purchasing power of Ngultrum as measured by CPI is Nu. 60 as of November 2022 compared to December 2012. This means, Nu. 100 in November 2022 is worth only Nu. 60 at December 2012 prices. The Purchasing Power of Ngultrum as measured by CPI has dropped by 4.39 percent in the last one year (from November 2021 to November 2022) due to price increase in the economy.

Technical notes

Concept and Definition of CPI

The Consumer Price Index (CPI) is a measure of average price changes in the basket of goods and services purchased by households over time. It shows how much, on average, prices of goods and services have increased or decreased from a particular reference period, commonly known as the Index reference.

Scope and coverage

The CPI covers the goods and services consumed by the households and a sample of goods and services are selected using the household expenditure data to measure the inflation experienced by the households. Prices of the sampled goods and services are collected from urban areas in 20 Dzongkhags on monthly, quarterly and annual frequency depending on the price volatility of the items. The outlets for data collection are selected based on purposive sampling considering the popularity of the outlet and availability of the items.

CPI baskets has a total of 113 items (314 varieties) classified according to Classification of Individual Consumption According to Purpose (COICOP). Total of about 450 outlets are selected for pricing.

Weights

Weights reflect the relative importance or share of the individual item to the total consumption expenditures of the households. It determines the impact an individual item will have to the overall inflation. Weight for the current CPI is derived using the household consumption expenditure data from the Bhutan Living Standard Survey (BLSS) conducted every five years. The current weight is based on BLSS 2017.

Price reference and index reference

Price reference is the period for which the prices are used as denominator for the index calculation. The price reference period for CPI is April 2019.

Index reference period is the period for which the index is set as 100. The index reference period is April 2019.

Index Calculation Formula

Geometric Modified Laspeyres formula is used to calculate the CPI:

$$P_{GYo} = \prod_{i=1}^{n} \left(\frac{P_i^t}{P_i^O} \right)^{s_i^b}$$

S_i^b = Expenditure Shares of the Base Period (weight from BLSS)

P_i^t = Current Period Price

P_i^O = Previous Period Price

$\left(\frac{P_i^t}{P_i^O} \right)$ = Price Relatives

Calculating Percent Changes

Month-on-month percent change measures the average price change between current month and previous month and serves as useful indicator of short-term price movement.

Year-on-year percent change measures the average price change between the specific months with that of the same month of the previous year.

Following is an example of computing index point and percent changes:

- Index point change

All item price index	104.50
Less previous price index	101.25
Equals index point change	3.25

- Index percent change

Index point change	3.25
Divided by Previous Price Index	101.25
Equals	0.032
Result multiplied by 100	0.032 x 100
Equals percent changes	3.2