

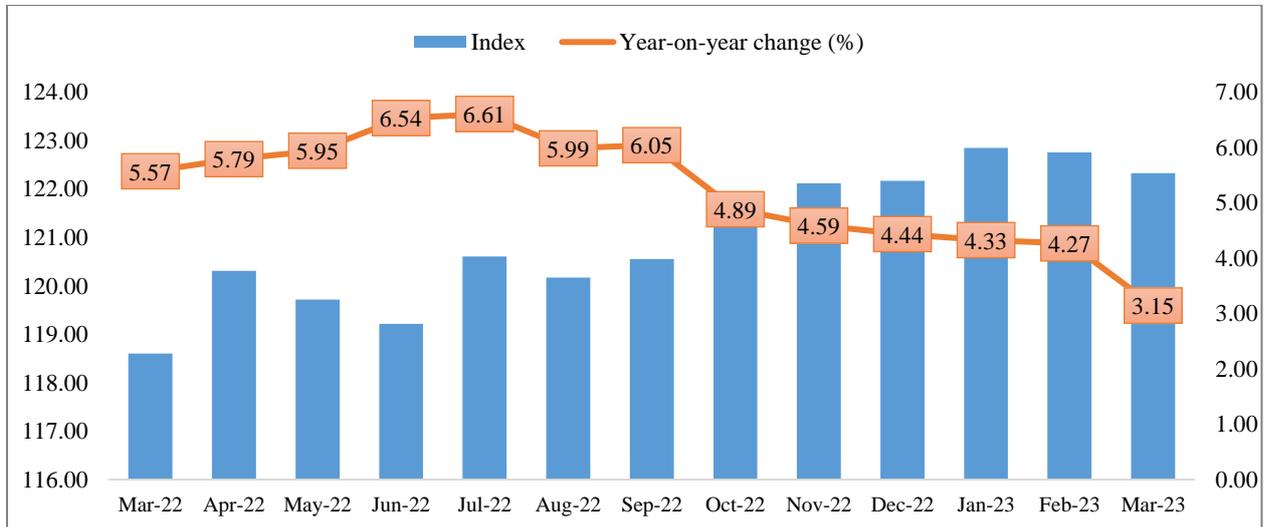


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རྒྱལ་ཡོངས་ཚུལ་དཔྱད་བཀོད་འཛིན།
Royal Government of Bhutan
National Statistics Bureau



Consumer Price Index (CPI): March 2023

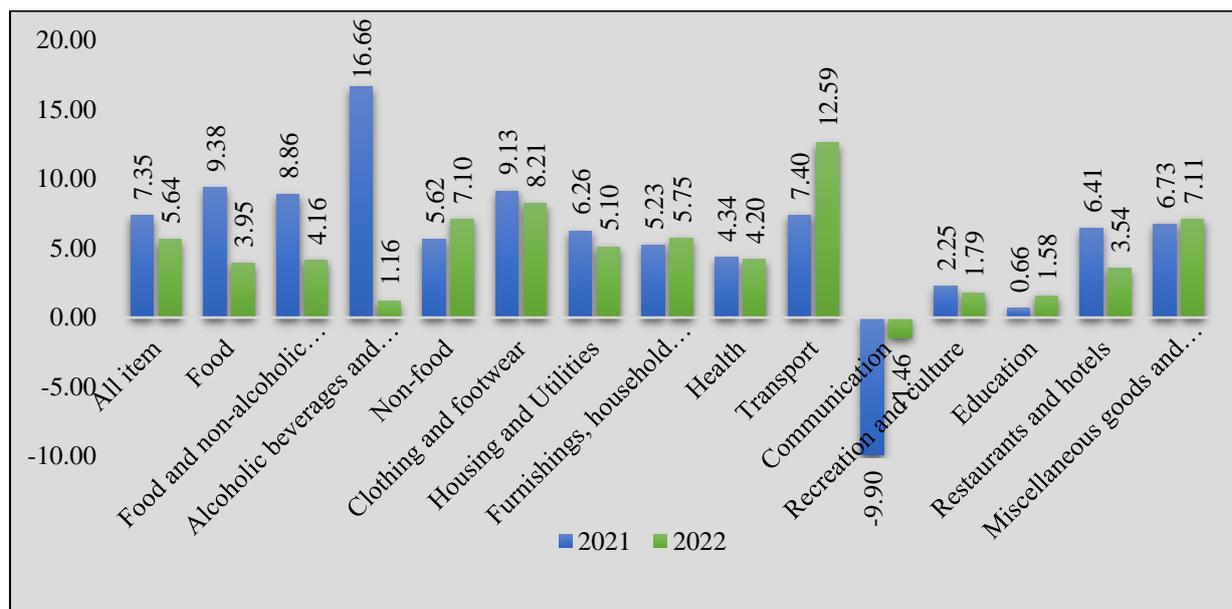
(Release date: 1st May, 2023)



The price of consumer goods and services increased by 3.15 percent in March 2023, which is a decline by 2.43 percentage point compared to the same month last year. The rate of increase dropped for both food and non-food at 0.75 percent and 5.23 percent respectively. Owing to the decrease in price of fuel, the price for transport in March increased by 6.72, which is a decline by 5.44 percentage point from the same month last year. For food category, prices of food and non-alcoholic beverages recorded an increase of 0.48 percent and that of alcoholic beverages and betel nuts recorded an increase of 4.48 percent.

Month-on-month CPI in March decreased by 0.35 from February, with both food and non-food prices decreasing by 0.58 percent and 0.15 percent respectively. The price for transport decreased by 0.76 percent in March. A decrease in price has been recorded for both divisions under food, with food and non-alcoholic beverages recording a decrease of 0.53 percent and alcoholic beverages and betel nuts recording a decrease of 1.18 percent.

Annual inflation rate



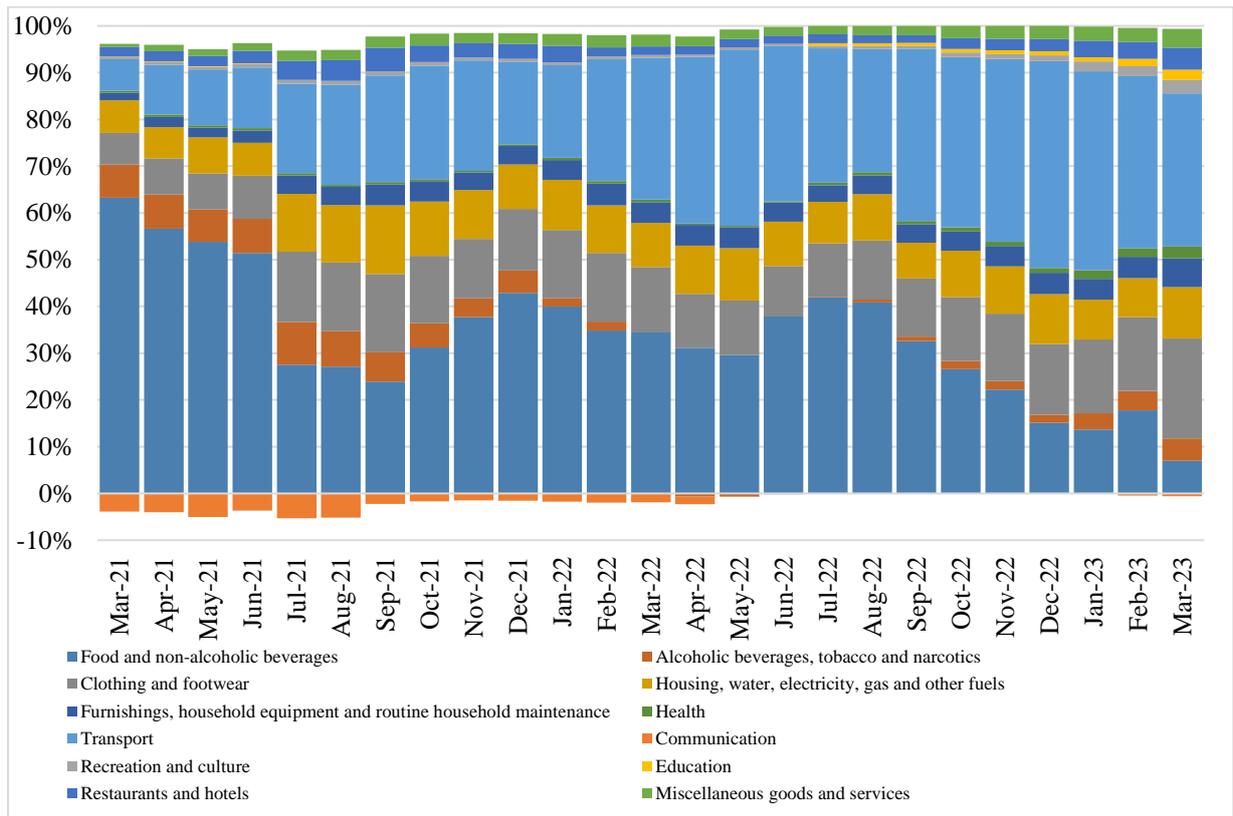
The prices of household goods and services increased by 5.64 percent from 2021 to 2022. This was a drop of 1.71 percentage point compared to 7.35 percent increase in 2021. The lower rate in 2022 was due to the lower rate of increase in the food items by just 3.95 percent compared to 9.38 percent increase in 2021.

Food prices contributed to about 34 percent of the overall inflation rate in 2022 and non-food contributing to 66 percent of the total increase. In 2021, food prices were the main driver of the inflation rate contributing to almost 60 percent of the total increase.

Among the 12 major division, food & alcoholic beverages contributed to more than 33 percent of the total increase in 2022, followed by transport with about 33 percent and clothing & footwear with about 13 percent contribution to the total increase.

In 2022, among the twelve major groups, transport recorded the highest increase with 12.59 percent while alcoholic beverages and betel nut recorded the lowest increase with 1.16 percent. All other divisions recorded an increase except for communication which dropped by 1.46 percent.

Graph 1: Percent contribution to overall change by Division



Graph 2: Percent change by Division

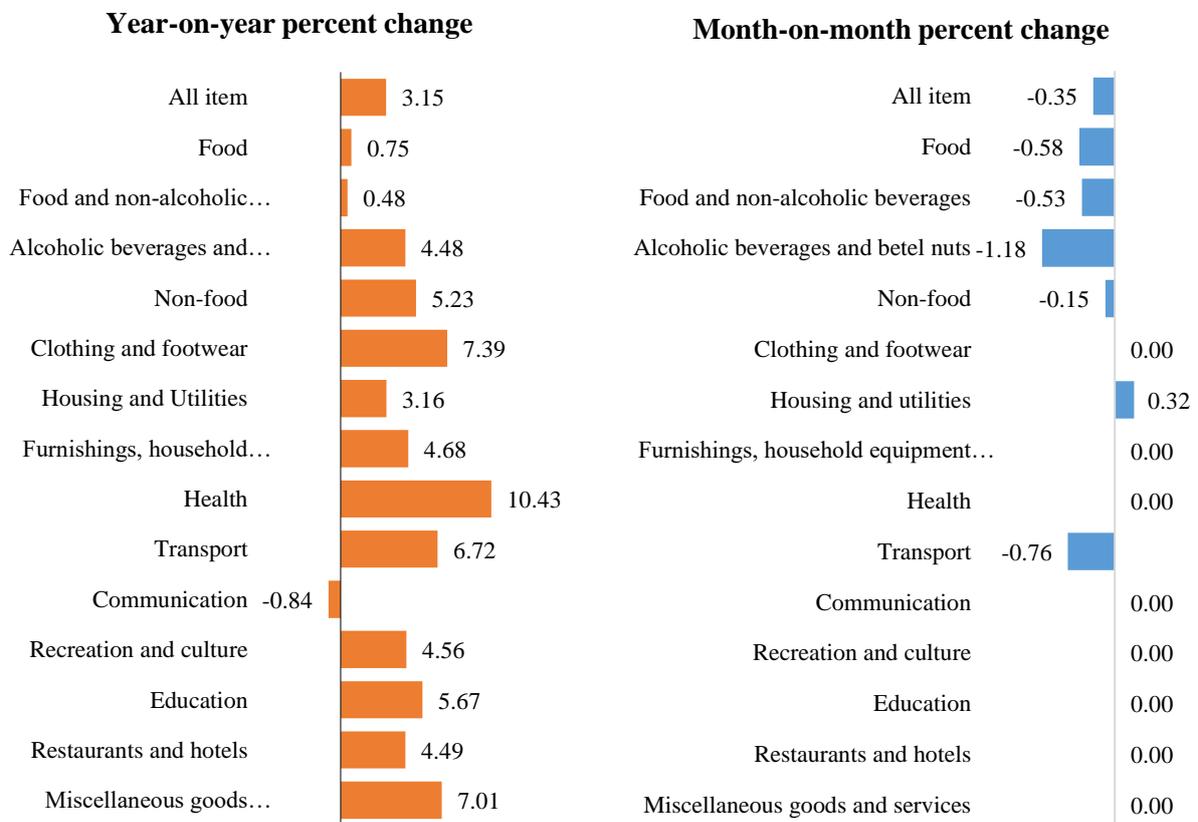


Table 1: Index (April 2019 = 100)

Division	Weight (%)	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23
All item	100.00	121.32	122.12	122.18	122.86	122.76	122.33
Food	45.95	126.22	127.66	128.34	129.17	128.81	128.07
Food and non-alcoholic beverages	42.78	126.17	127.22	128.35	128.92	128.42	127.74
Alcoholic beverages and betel nuts	3.17	126.82	125.22	128.20	132.64	134.19	132.61
Non-food	54.05	117.30	115.69	117.18	117.73	117.84	117.66
Clothing and footwear	9.17	125.22	116.57	125.22	126.77	126.77	126.77
Housing and Utilities	11.57	115.73	115.45	115.75	115.64	115.68	116.04
Furnishings, household equipment and routine household maintenance	4.44	116.57	127.54	116.57	117.08	117.27	117.27
Health	0.81	115.45	83.77	115.45	122.36	122.36	122.36
Transport	15.63	126.32	105.27	125.84	125.63	125.85	124.89
Communication	3.25	83.77	108.05	83.77	83.41	82.95	82.95
Recreation and culture	2.30	105.27	112.80	105.27	107.87	107.87	107.87
Education	1.35	108.05	119.45	108.05	108.05	110.68	110.68
Restaurants and hotels	3.62	112.80	122.12	112.80	114.53	114.53	114.53
Miscellaneous goods and services	1.92	119.45	127.66	119.45	120.36	120.36	120.36

Table 2: Year-on-year percent change

Division	Weight (%)	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23
All item	100.00	4.89	4.59	4.44	4.33	4.27	3.15
Food	45.95	2.87	2.26	1.50	1.49	1.91	0.75
Food and non-alcoholic beverages	42.78	2.89	2.24	1.45	1.28	1.67	0.48
Alcoholic beverages and betel nuts	3.17	2.62	2.52	2.22	4.40	5.22	4.48
Non-food	54.05	6.63	6.62	7.01	6.81	6.32	5.23
Clothing and footwear	9.17	7.28	7.28	7.28	7.39	7.39	7.39
Housing and Utilities	11.57	4.37	4.22	4.30	3.34	3.26	3.16
Furnishings, household equipment and routine household maintenance	4.44	4.79	4.79	4.79	4.50	4.68	4.68
Health	0.81	5.62	5.62	5.62	10.43	10.43	10.43
Transport	15.63	11.74	11.80	13.16	12.36	10.50	6.72
Communication	3.25	0.14	0.14	0.14	-0.28	-0.84	-0.84
Recreation and culture	2.30	2.29	2.29	2.29	4.56	4.56	4.56
Education	1.35	3.15	3.15	3.15	3.15	5.67	5.67
Restaurants and hotels	3.62	3.38	3.38	3.38	4.58	4.58	4.49
Miscellaneous goods and services	1.92	6.83	6.83	6.83	7.01	7.01	7.01

Table 3: Month-on-month percent change

Division	Weights (%)	Oct-22	Nov-22	Dec-22	Jan-23	Feb-23	Mar-23
All item	100.00	0.63	0.66	0.05	0.56	-0.08	-0.35
Food	45.95	0.80	1.12	0.55	0.66	-0.28	-0.58
Food and non-alcoholic beverages	42.78	0.81	1.18	0.54	0.45	-0.39	-0.53
Alcoholic beverages and betel nuts	3.17	0.58	0.31	0.77	3.46	1.17	-1.18
Non-food	54.05	0.49	0.27	-0.38	0.47	0.10	-0.15
Clothing and footwear	9.17	0.89	0.00	0.00	1.24	0.00	0.00
Housing and utilities	11.57	0.57	-0.04	0.05	-0.09	0.03	0.32
Furnishings, household equipment and routine household maintenance	4.44	0.88	0.00	0.00	0.44	0.17	0.00
Health	0.81	1.14	0.00	0.00	5.98	0.00	0.00
Transport	15.63	-0.21	0.97	-1.33	-0.17	0.17	-0.76
Communication	3.25	0.17	0.00	0.00	-0.43	-0.55	0.00
Recreation and culture	2.30	0.98	0.00	0.00	2.47	0.00	0.00
Education	1.35	0.00	0.00	0.00	0.00	2.44	0.00
Restaurants and hotels	3.62	0.54	0.00	0.00	1.54	0.00	0.00
Miscellaneous goods and services	1.92	2.90	0.00	0.00	0.76	0.00	0.00

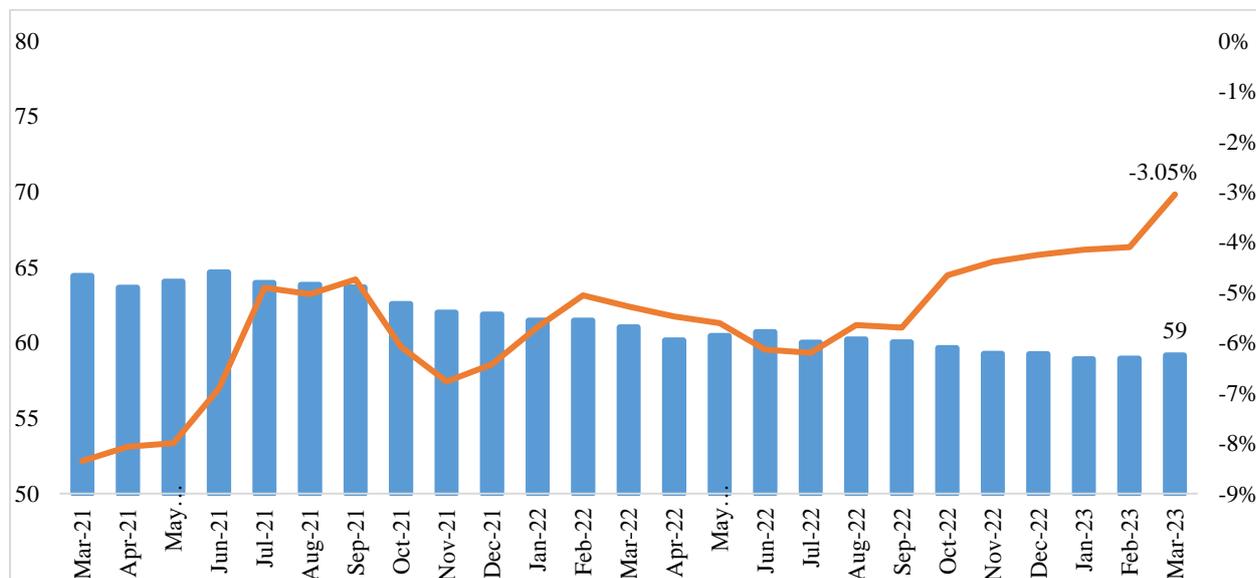
Table 4: Annual Index (April 2019= 100)

Division	Weights (%)	2016	2017	2018	2019	2020	2021	2022
All item	100.00	90.47	94.95	97.54	100.20	105.84	113.62	120.02
Food	45.95	86.26	92.37	96.93	100.26	111.38	121.83	126.64
Food and non-alcoholic beverages	42.78	85.81	92.21	96.76	100.29	111.67	121.57	126.63
Alcoholic beverages and betel nuts	3.17	91.98	94.45	98.94	99.86	107.51	125.43	126.88
Non-food	54.05	93.39	96.72	97.95	100.15	101.39	107.09	114.69
Clothing and footwear	9.17	92.42	95.85	98.35	100.04	103.27	112.70	121.96
Housing and Utilities	11.57	90.74	96.37	97.73	100.20	102.52	108.94	114.50
Furnishings, household equipment and routine household maintenance	4.44	95.16	96.48	98.06	100.57	102.95	108.34	114.57
Health	0.81	94.98	95.97	97.85	100.33	103.76	108.26	112.81
Transport	15.63	96.28	98.11	97.42	100.07	100.59	108.03	121.63
Communication	3.25	99.70	99.71	99.79	100.02	94.27	84.93	83.69
Recreation and culture	2.30	98.02	99.18	99.60	99.93	100.04	102.29	104.12
Education	1.35	92.78	96.22	99.41	100.64	104.05	104.75	106.40
Restaurants and hotels	3.62	87.00	89.13	94.29	99.42	101.00	107.48	111.28
Miscellaneous goods and services	1.92	94.42	96.29	98.43	100.05	101.07	107.88	115.54

Table 5: Annual percent change

Division	Weight (%)	Percent change							
		2016	2017	2018	2019	2020	2021	2022	
All item	100.00	3.22	4.96	2.72	2.73	5.63	7.35	5.64	
Food	45.95	3.86	7.09	4.93	3.44	11.09	9.38	3.95	
Food and non-alcoholic beverages	42.78	4.02	7.46	4.94	3.64	11.35	8.86	4.16	
Alcoholic beverages and betel nuts	3.17	1.90	2.68	4.75	0.94	7.66	16.66	1.16	
Non-food	54.05	2.80	3.56	1.28	2.24	1.24	5.62	7.10	
Clothing and footwear	9.17	2.97	3.71	2.61	1.72	3.23	9.13	8.21	
Housing and Utilities	11.57	3.22	6.21	1.41	2.53	2.32	6.26	5.10	
Furnishings, household equipment and routine household maintenance	4.44	1.85	1.39	1.63	2.56	2.37	5.23	5.75	
Health	0.81	0.80	1.05	1.96	2.54	3.41	4.34	4.20	
Transport	15.63	3.73	1.90	-0.70	2.72	0.52	7.40	12.59	
Communication	3.25	0.05	0.01	0.08	0.23	-5.75	-9.90	-1.46	
Recreation and culture	2.30	-0.58	1.18	0.42	0.33	0.12	2.25	1.79	
Education	1.35	6.88	3.71	3.31	1.24	3.39	0.66	1.58	
Restaurants and hotels	3.62	3.19	2.44	5.79	5.44	1.59	6.41	3.54	
Miscellaneous goods and services	1.92	2.48	1.98	2.23	1.65	1.02	6.73	7.11	

Chart 5: Purchasing Power of Ngultrum (PPN)



The purchasing power of Ngultrum as measured by CPI is Nu. 59 as of March 2023 compared to December 2012. This means, Nu. 100 in March 2023 is worth only Nu. 59 at December 2012 prices. The Purchasing Power of Ngultrum as measured by CPI has dropped by 3.05 percent in the last year (from March 2022 to March 2023) due to price increases 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 the denominator for the index calculation. The price reference period for CPI is April 2019.

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

Index Calculation Formula

The Geometric Modified Young 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