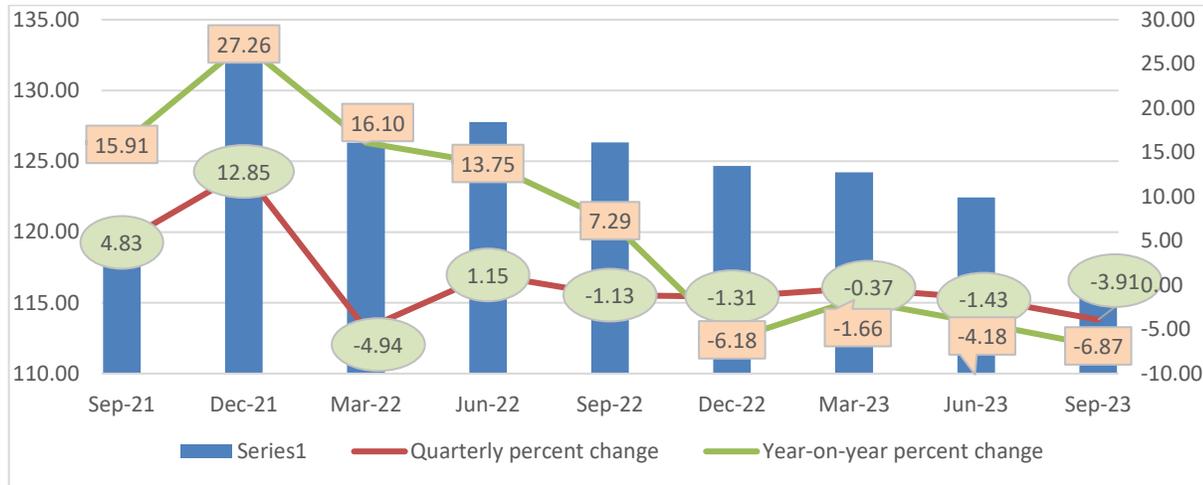




Export and Import Price Index: Third Quarter (July-Sep), 2023

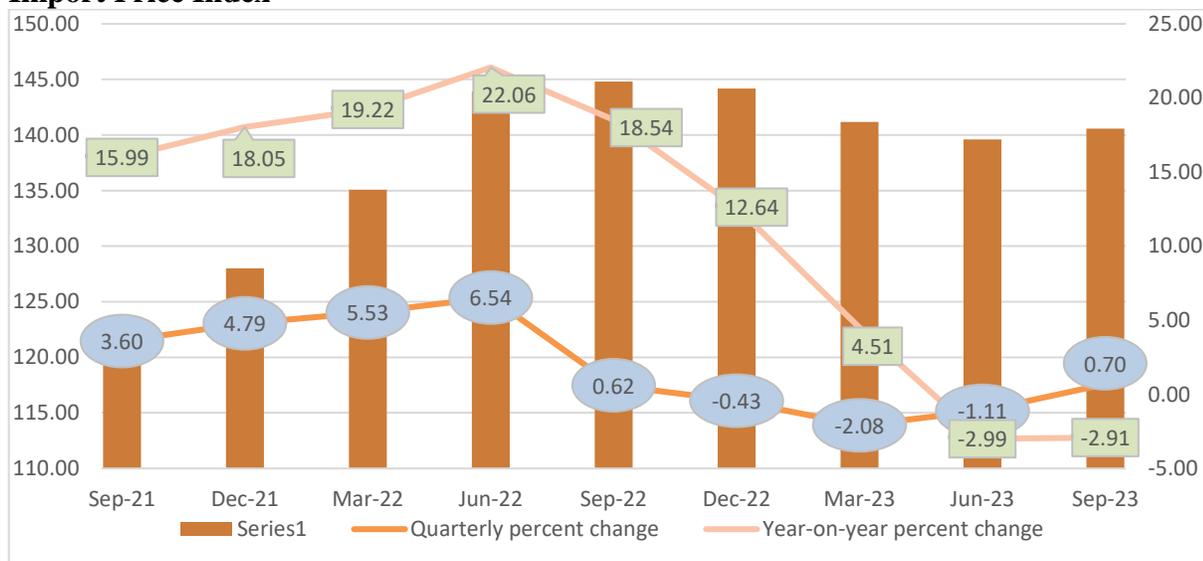
Export Price Index



Year-on-year inflation for export goods further decreased in the third quarter of 2023 compared to the third quarter 2022 by 6.87 percent. The prices of food and beverage; increased by 3.19 percent. The prices for mineral products, cement and electricity; decreased by 4.92, and the price for chemicals, plastics, textiles and apparel; decreased by 5.58 percent. The price of base metals and other manufactures recorded further decreased by 28.57 percent in third quarter. On the other hand the prices of wood, pulp and paper increased by 32.04 percent and as compared to the third quarter of 2022 respectively.

Quarter-on-quarter export price recorded a decrease in the third quarter. It went down by 3.91 percent. The export price was mainly driven by an increase in price of Food and beverages; by 1.10 percent along with the price for the prices for wood, pulp and paper increased by 7.77 percent in present quarter. Mineral products, cement and electricity; decreased by 0.33 and the price for chemicals, plastics, textiles, and apparel; decreased by 3.03 percent. The prices of base metals and other manufactures continues to decrease by 13.13 percent.

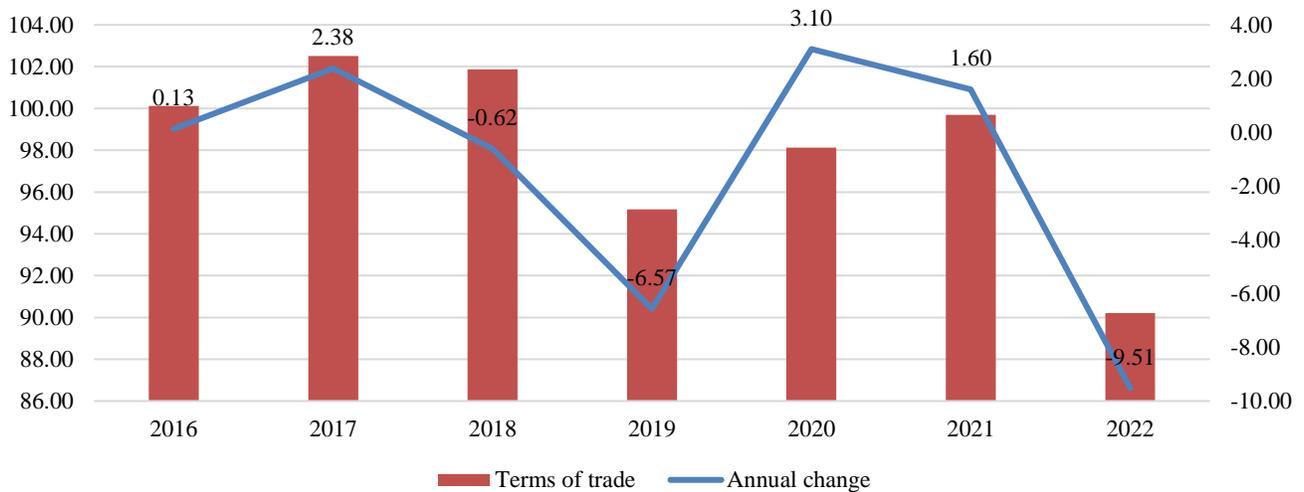
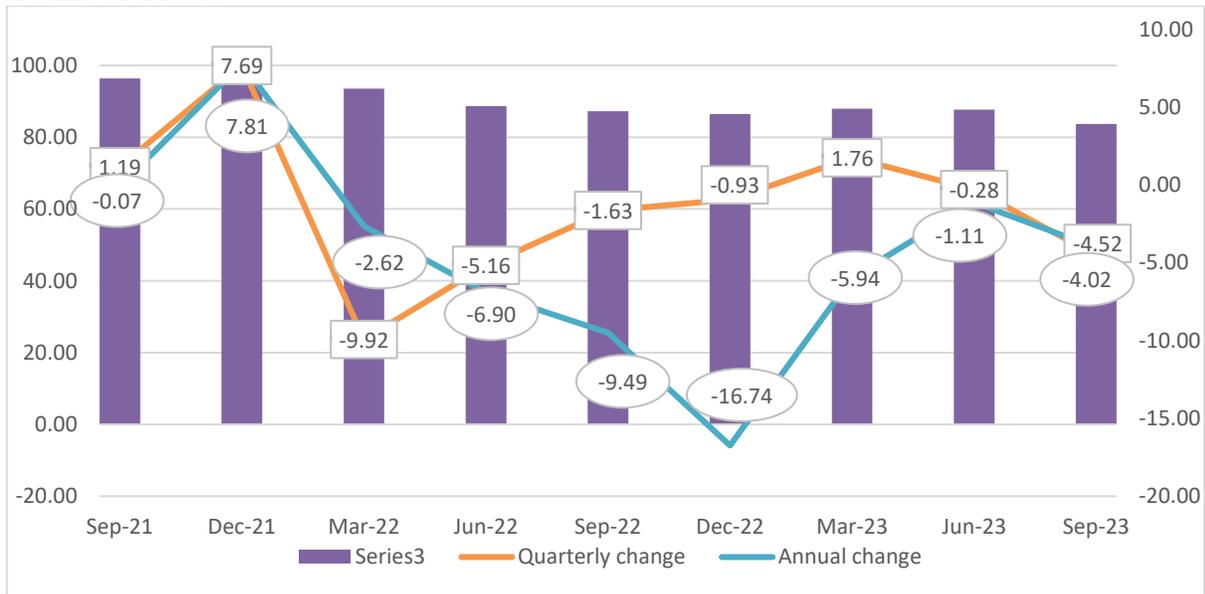
Import Price Index



The year-on-year inflation rate for imported goods recorded a decreased of 2.97 percent in the third quarter of 2023 as compared to third quarter of 2022. All groups within the import category recorded decreased expect for Food and beverages; which increased by 4.75 percent and wood, pulp and paper group recorded increased by 5.39 percent. Mineral products, cement and electricity recorded decrease by 16.82 percent. Chemicals, plastics, textiles and apparel decreased by 0.38 percent followed by metals and metal articles decreased by 10.10 percent. Prices for transport equipment; recorded further decreased by 7.92 percent and machinery, appliances and other manufactures; recorded decrease of 4.33 percent respectively.

The quarter-on-quarter inflation rate (current quarter compared to previous quarter) import increased by 0.70 percent The contributors to the increase, in comparison to the previous quarter are the price of food and beverages; which increased by 7.05 percent and the price of wood, pulp and paper; increased 11.94 On contrast the price for metal and metal articles recorded decreased by 6.14 percent respectively. The prices for chemicals, plastics, textiles and apparel decreased by 3.52 percent and prices for machinery, appliances and other manufactures; decreased by 0.48 percent .Lastly the price of transport equipment increased by 0.98 percent respectively

Terms of Trade



The terms of trade further decreased to 83.74 in the third quarter from 87.71 in the second quarter of 2023, recording decrease of 4.52 percentage point. Compared to the third quarter of the previous year, the terms of trade dropped by 4.02 percent.

Increase in terms of trade means more quantity of imports that can be funded by a fixed quantity of exports while decrease in terms of trade means smaller quantity of imports that can be funded by a fixed quantity of exports.

Export Price Index (Dec 2014 quarter = 100)

Chart 1: Year-on-year percent change

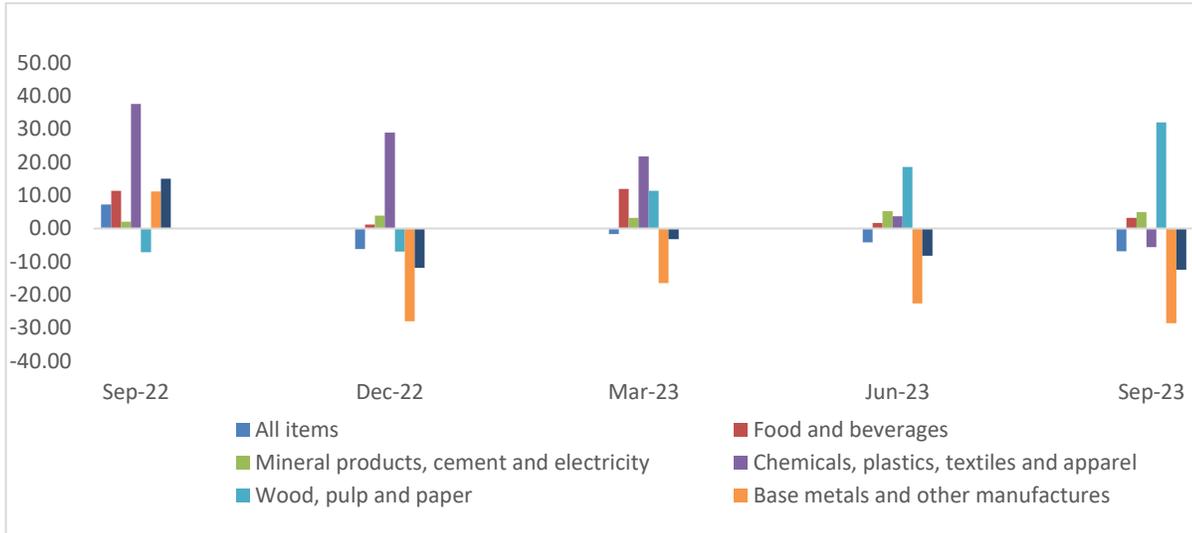


Chart 2: Quarter-on-quarter percent change

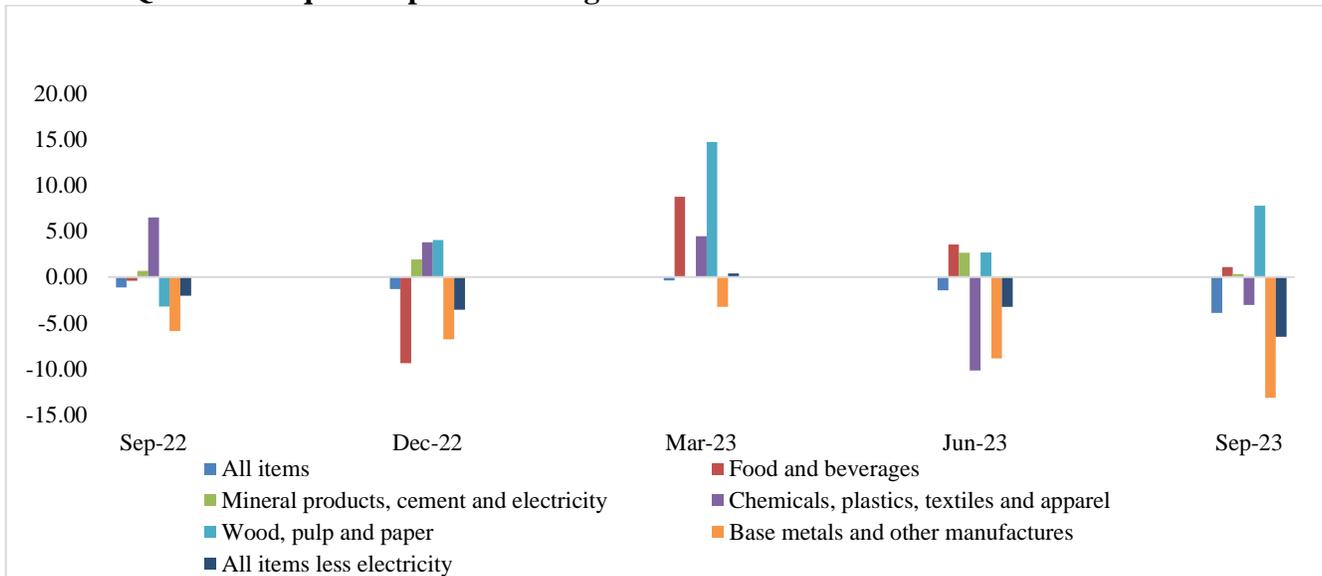
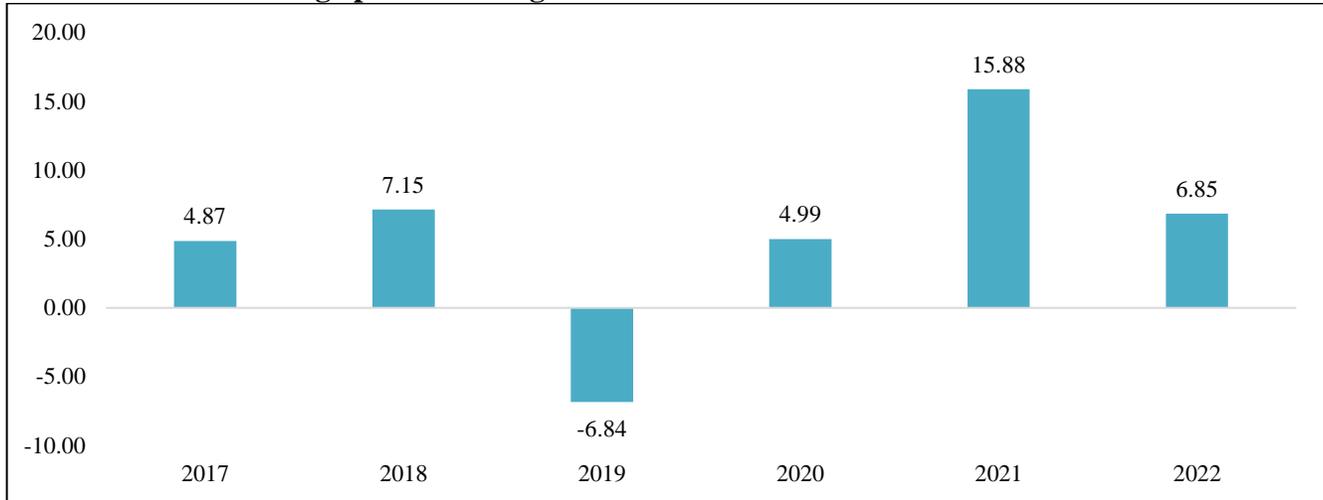


Chart 3: Annual average percent change



Import Price Index (Dec 2014 quarter = 100)

Chart 4: Year-on-year percent change

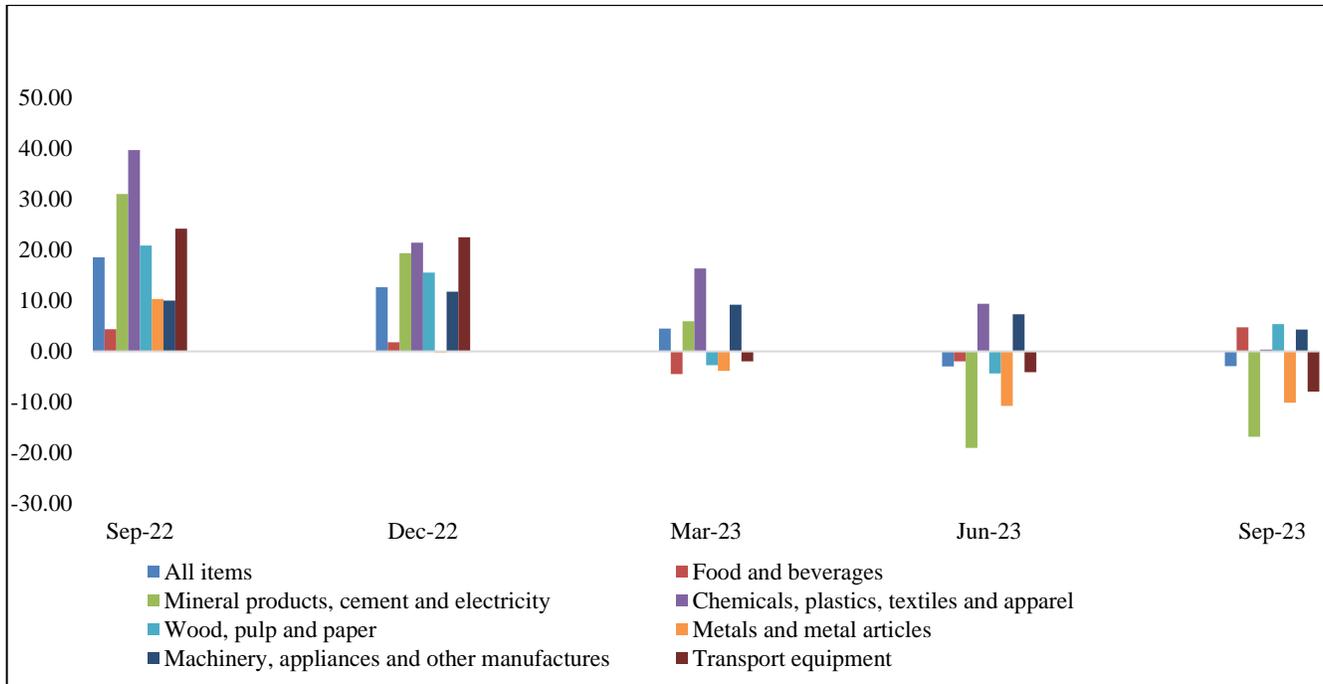


Chart 5: Quarter-on-quarter percent change

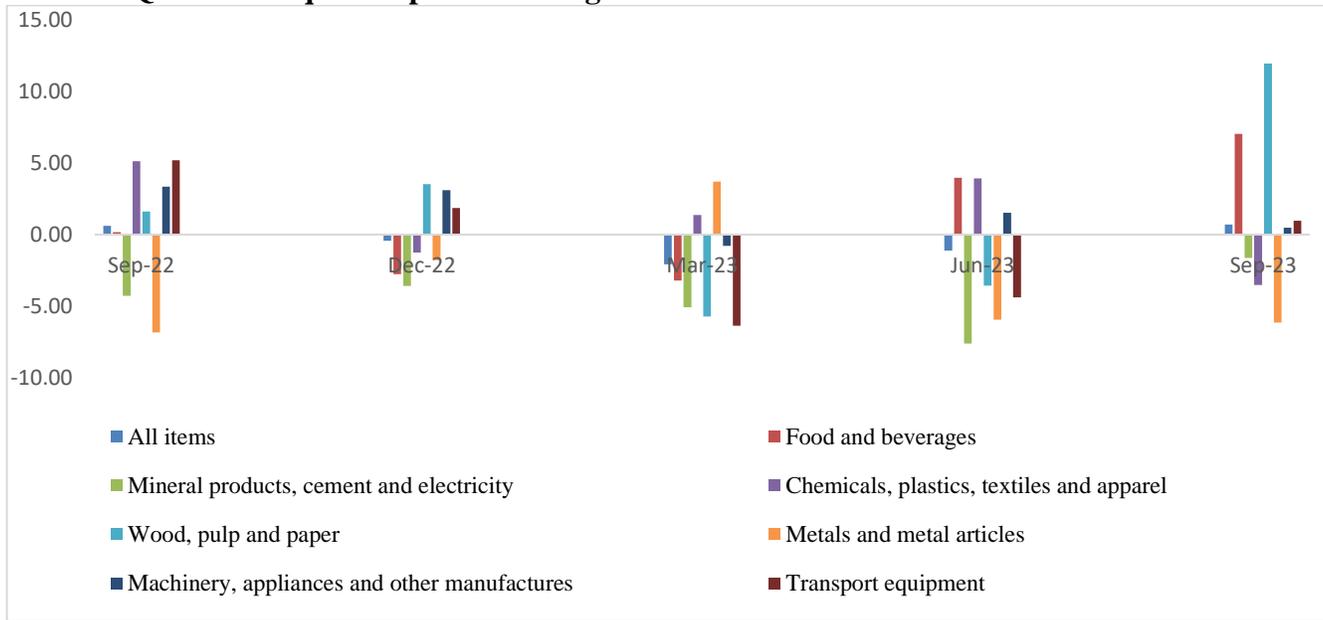


Chart 6: Average annual percent change

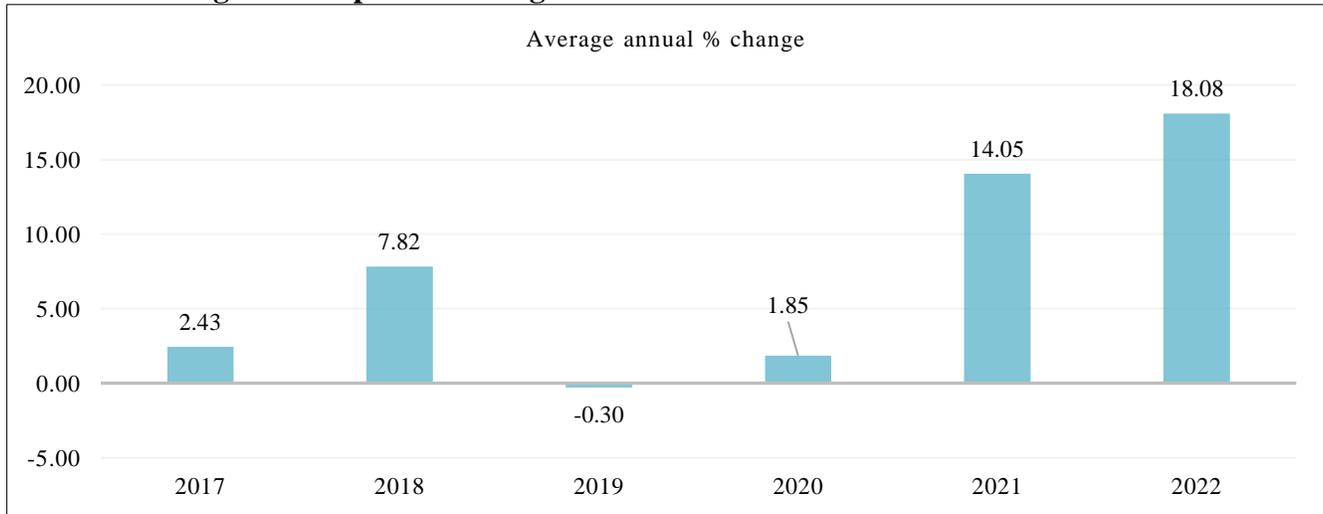


Table 1: Export Price Index (Dec 2014 quarter = 100)

Quarter	All items	Food and beverages	Mineral products, cement and electricity	Chemicals, plastics, textiles and apparel	Wood, pulp and paper	Base metals and other manufactures	All items less electricity
Sep-18	103.85	90.96	108.38	92.68	107.07	105.47	101.38
Dec-18	103.74	88.13	109.04	92.93	96.56	105.31	101.22
Mar-19	100.85	90.81	110.66	91.12	93.90	95.02	97.38
Jun-19	98.53	88.63	111.55	87.92	84.42	89.01	94.23
Sep-19	96.31	87.31	111.48	86.72	93.17	83.32	91.29
Dec-19	94.57	88.00	111.21	89.49	62.65	79.39	88.98
Mar-20	99.87	87.40	112.14	93.96	64.95	95.14	96.66
Jun-20	101.96	88.12	112.51	100.13	63.12	100.68	99.63
Sep-20	101.59	91.63	115.28	76.37	63.88	95.85	99.09
Dec-20	104.42	92.61	117.32	77.19	62.29	101.35	103.19
Mar-21	108.81	90.46	118.63	85.65	64.85	117.88	113.15
Jun-21	112.33	82.99	119.28	93.87	68.98	134.23	121.04
Sep-21	117.75	90.00	119.17	98.93	64.83	156.98	133.38
Dec-21	132.89	89.74	119.37	109.58	67.30	226.14	167.84
Mar-22	126.32	88.26	120.06	121.18	64.46	188.44	153.44
Jun-22	127.64	99.43	120.83	127.83	62.16	185.42	156.21
Sep-22	126.33	100.23	121.63	136.12	60.17	174.53	153.36
Dec-22	124.67	90.85	123.95	141.26	62.60	162.74	147.90
Mar-23	124.22	98.80	123.94	147.54	71.79	157.44	148.49
Jun-23	122.44	102.30	127.49	132.54	73.72	143.51	143.67
Sep-23	117.65	103.43	108.58	128.52	79.45	143.67	134.33

Table 2: Year-on-year percent change

Quarter	All items	Food and beverages	Mineral products, cement and electricity	Chemicals, plastics, textiles and apparel	Wood, pulp and paper	Base metals and other manufactures	All items less electricity
Sep-19	-7.26	-4.01	2.86	-6.43	-12.98	-21.00	-9.95
Dec-19	-8.84	-0.15	1.99	-3.70	-35.12	-24.61	-12.09
Mar-20	-0.98	-3.76	1.33	3.12	-30.83	0.13	-0.74
Jun-20	3.49	-0.58	0.86	13.89	-25.23	13.11	5.74
Sep-20	5.48	4.95	3.41	-11.94	-31.44	15.04	8.54
Dec-20	10.42	5.24	5.49	-13.75	-0.57	27.66	15.97
Mar-21	8.95	3.50	5.79	-8.85	-0.15	23.90	17.07
Jun-21	10.16	-5.82	6.02	-6.25	9.27	33.32	21.48
Sep-21	15.91	-1.78	3.38	29.54	1.49	63.78	34.61
Dec-21	27.26	-3.10	1.75	41.96	8.03	123.13	62.64
Mar-22	16.10	-2.43	1.21	41.48	-0.61	59.85	35.60
Jun-22	13.63	19.81	1.30	36.18	-9.88	38.14	29.06
Sep-22	7.29	11.37	2.07	37.59	-7.19	11.18	14.98
Dec-22	-6.18	1.24	3.84	28.91	-6.98	-28.04	-11.88
Mar-23	-1.66	11.94	3.23	21.75	11.38	-16.45	-3.22
Jun-23	-4.18	1.66	5.27	3.68	18.59	-22.60	-8.21
Sep-23	-6.87	3.19	-10.73	-5.58	32.04	-28.57	-12.41

Table 3: Quarter-on-quarter percent change

Quarter	All items	Food and beverages	Mineral products, cement and electricity	Chemicals, plastics, textiles and apparel	Wood, pulp and paper	Base metals and other manufactures	All items less electricity
Sep-18	-1.89	-0.22	-0.16	1.14	1.19	-5.61	-2.74
Dec-18	-0.10	-3.11	0.61	0.26	-9.82	-0.15	-0.15
Mar-19	-2.79	3.04	1.48	-1.94	-2.76	-9.77	-3.80
Jun-19	-2.31	-2.40	0.80	-3.52	-10.09	-6.33	-3.23
Sep-19	-2.25	-1.49	-0.06	-1.36	10.36	-6.39	-3.11
Dec-19	-1.81	0.79	-0.24	3.19	-32.76	-4.72	-2.53
Mar-20	5.60	-0.68	0.83	5.00	3.67	19.84	8.63
Jun-20	2.10	0.82	0.33	6.56	-2.81	5.82	3.08
Sep-20	-0.37	3.99	2.46	-23.73	1.19	-4.79	-0.55
Dec-20	2.79	1.07	1.77	1.07	-2.48	5.73	4.14
Mar-21	4.20	-2.32	1.12	10.97	4.11	16.32	9.65
Jun-21	3.24	-8.26	0.55	9.59	6.36	13.86	6.97
Sep-21	4.83	8.45	-0.09	5.39	-6.01	16.95	10.20
Dec-21	12.85	-0.29	0.17	10.76	3.81	44.05	25.83
Mar-22	-4.94	-1.65	0.58	10.59	-4.22	-16.67	-8.58
Jun-22	1.04	12.66	0.64	5.49	-3.57	-1.60	1.81
Sep-22	-1.13	-0.40	0.66	6.48	-3.20	-5.87	-2.02
Dec-22	-1.31	-9.36	1.91	3.78	4.04	-6.76	-3.56
Mar-23	-0.37	-9.36	-0.01	4.44	14.68	-3.25	0.40
Jun-23	-1.43	8.75	2.63	-10.17	2.68	-8.85	-3.56
Sep-23	-3.91	1.10	0.33	-3.03	7.77	-13.13	-6.50

Table 4: Average annual index (2015=100) and percent change

Year	All items	Food and beverages	Mineral products, cement and electricity	Chemicals, plastics, textiles and apparel	Wood, pulp and paper	Base metals and other manufactures	All items less electricity
2016	97.77	99.35	102.13	95.02	107.50	89.03	95.73
2017	102.53	86.68	107.93	90.90	104.29	102.49	99.66
2018	109.85	85.15	108.93	92.45	104.28	126.08	109.72
2019	102.33	84.00	111.76	91.19	81.60	100.37	99.92
2020	107.45	85.63	115.21	87.68	62.70	114.21	106.86
2021	124.51	83.84	119.67	98.95	65.47	181.33	141.96
2022	133.03	89.21	122.28	134.71	61.26	208.46	164.00

Percent change

2017	4.87	-12.75	5.68	-4.33	-2.98	15.12	4.11
2018	7.15	-1.76	0.92	1.70	-0.01	23.02	10.09
2019	-6.85	-1.36	2.60	-1.36	-21.75	-20.40	-8.93
2020	4.99	1.94	3.09	-3.85	-23.15	13.80	6.95
2021	15.88	-2.09	3.87	12.85	4.41	58.76	32.85
2022	6.85	6.41	2.18	36.14	-6.44	14.96	15.52

Table 5: Import Price Index (Dec 2014 quarter = 100)

Quarter	All items	Food and beverages	Mineral products, cement and electricity	Chemicals, plastics, textiles and apparel	Wood, pulp and paper	Metals and metal articles	Machinery, appliances and other manufactures	Transport equipment
Sep-18	106.32	111.89	111.37	103.99	105.88	102.27	110.26	109.19
Dec-18	108.30	113.20	111.54	110.18	108.07	102.80	112.29	115.58
Mar-19	104.31	114.04	102.62	104.01	107.00	105.14	108.97	107.83
Jun-19	104.30	114.69	106.68	102.68	103.88	98.47	107.31	111.01
Sep-19	103.30	115.68	107.13	102.61	103.05	90.28	107.87	106.73
Dec-19	104.00	119.13	108.05	103.37	108.96	80.87	108.58	112.83
Mar-20	106.40	121.99	104.12	102.29	125.36	90.39	111.35	115.56
Jun-20	103.31	123.90	86.47	101.04	126.58	87.83	117.45	119.29
Sep-20	105.31	123.27	100.69	100.78	121.54	88.52	113.99	112.26
Dec-20	108.44	131.65	99.54	102.48	109.28	99.89	113.04	121.63
Mar-21	113.30	135.30	111.06	106.70	126.12	110.69	111.88	118.56
Jun-21	117.91	145.32	117.37	111.15	118.79	120.81	113.25	119.31
Sep-21	122.15	146.19	127.19	116.25	120.51	129.93	116.27	117.08
Dec-21	128.01	145.77	134.62	132.05	130.58	141.01	117.97	120.91
Mar-22	135.08	150.31	144.02	139.76	146.23	151.84	119.79	141.52
Jun-22	143.91	152.33	174.12	154.49	143.38	153.81	123.77	138.27
Sep-22	144.80	152.60	166.69	162.43	145.70	143.32	127.90	145.45
Dec-22	144.24	148.39	161.05	160.39	150.84	140.76	131.87	148.16
Mar-23	141.36	143.48	152.56	162.59	142.23	145.96	130.82	138.73
Jun-23	139.60	149.33	140.69	168.99	137.17	137.28	130.81	132.63
Sep-23	140.58	159.85	138.65	163.05	153.55	128.85	133.44	133.92

Table 6: Year-on-year percent change

Quarter	All items	Food and beverages	Mineral products, cement and electricity	Chemicals, plastics, textiles and apparel	Wood, pulp and paper	Metals and metal articles	Machinery, appliances and other manufactures	Transport equipment
Sep-19	-2.85	3.38	-3.81	-1.32	-2.67	-11.73	-2.17	-2.25
Dec-19	-3.97	5.24	-3.13	-6.18	0.83	-21.33	-3.30	-2.38
Mar-20	2.00	6.98	1.45	-1.65	17.16	-14.03	2.18	7.16
Jun-20	-0.96	8.03	-18.94	-1.60	21.86	-10.80	9.45	7.46
Sep-20	1.95	6.56	-6.01	-1.79	17.94	-1.95	5.68	5.19
Dec-20	4.27	10.51	-7.88	-0.87	0.29	23.52	4.11	7.80
Mar-21	6.48	10.91	6.67	4.31	0.61	22.46	0.48	2.60
Jun-21	14.13	17.29	35.73	10.01	-6.16	37.54	-3.58	0.01
Sep-21	15.99	18.59	26.32	15.36	-0.85	46.78	2.00	4.29
Dec-21	18.05	10.73	35.25	28.86	19.50	41.16	4.36	-0.59
Mar-22	19.22	11.09	29.68	30.98	15.95	37.18	7.07	19.37
Jun-22	22.06	4.82	48.34	39.00	20.70	27.32	9.29	15.89
Sep-22	18.54	4.39	31.05	39.72	20.90	10.30	10.00	24.23
Dec-22	12.68	1.79	19.63	21.46	15.51	-0.18	11.78	22.53
Mar-23	4.51	-4.46	5.93	16.34	-2.74	-3.87	9.21	-1.97
Jun-23	2.99	-1.96	-19.04	9.38	-4.33	-10.75	7.30	-4.
Sep-23	-2.91	4.75	-16.82	0.38	5.39	-10.10	4.33	-7.92

Table 7: Quarter-on-quarter percent change

Quarter	All items	Food and beverages	Mineral products, cement and electricity	Chemicals, plastics, textiles and apparel	Wood, pulp and paper	Metals and metal articles	Machinery, appliances and other manufactures	Transport equipment
Sep-18	3.02	0.28	5.00	3.94	-5.73	3.27	4.67	0.08
Dec-18	1.86	1.17	0.15	5.95	2.07	0.52	1.84	5.86
Mar-19	-3.68	0.74	-7.99	-5.60	-0.99	2.27	-2.95	-6.71
Jun-19	-0.01	0.57	3.96	-1.28	-2.92	-6.35	-1.53	2.95
Sep-19	-0.96	0.86	0.42	-0.06	-0.80	-8.32	0.52	-3.86
Dec-19	0.68	2.99	0.85	0.74	5.74	-10.42	0.66	5.72
Mar-20	2.31	2.40	-3.64	-1.05	15.05	11.77	2.55	2.42
Jun-20	-2.91	1.57	-16.95	-1.22	0.98	-2.83	5.48	3.23
Sep-20	1.94	-0.51	16.44	-0.26	-3.98	0.78	-2.94	-5.89
Dec-20	2.97	6.80	-1.15	1.69	-10.09	12.85	-0.83	8.34
Mar-21	4.48	2.77	11.58	4.12	15.41	10.81	-1.03	-2.52
Jun-21	4.06	7.40	5.68	4.17	-5.81	9.14	1.22	0.64
Sep-21	3.60	0.60	8.36	4.59	1.45	7.55	2.67	-1.87
Dec-21	4.79	-0.28	5.84	13.59	8.36	8.53	1.46	3.27
Mar-22	5.53	3.11	6.98	5.83	11.98	7.68	1.54	17.05
Jun-22	6.54	1.34	20.90	10.55	-1.95	1.30	3.32	-2.29
Sep-22	0.62	0.18	-4.27	5.14	1.62	-6.82	3.34	5.19
Dec-22	-0.38	-2.76	-3.38	-1.25	3.53	-1.78	3.10	1.86
Mar-23	-2.08	-3.22	-5.08	1.37	-5.71	3.70	-0.80	-6.36
Jun-23	-1.11	3.98	-7.60	3.94	-3.95	-5.95	1.52	-4.40
Sep-23	0.70	7.05	-1.64	3.52	11.94	-6.14	0.48	0.98

Table 8: Average Annual index (2015=100) and percent change

Year	All items	Food and beverages	Mineral products, cement and electricity	Chemicals, plastics, textiles and apparel	Wood, pulp and paper	Metals and metal articles	Machinery, appliances and other manufactures	Transport equipment
2016	97.65	107.77	97.75	97.84	94.30	80.47	101.52	104.69
2017	100.02	110.18	105.17	97.37	93.87	94.78	98.36	98.70
2018	107.84	110.49	115.01	104.66	106.55	116.11	103.16	103.31
2019	107.52	114.04	113.79	104.92	104.67	107.16	104.63	103.42
2020	109.50	123.44	105.29	103.50	118.51	105.88	110.24	110.89
2021	124.89	140.83	132.16	118.23	123.36	146.98	111.45	112.09
2022	147.48	148.53	174.47	156.92	145.54	169.21	122.07	134.17

Percent change

2017	2.43	2.24	7.60	-0.48	-0.45	17.79	-3.11	-5.72
2018	7.82	0.28	9.36	7.48	13.51	22.51	4.87	4.67
2019	-0.30	3.21	-1.07	0.25	-1.77	-7.71	1.43	0.10
2020	1.85	8.25	-7.47	-1.36	13.23	-1.20	5.36	7.23
2021	14.05	14.08	25.52	14.23	4.10	38.82	1.10	1.08
2022	18.08	5.47	32.01	32.72	17.97	15.12	9.53	19.70

Table 9: Export weights (%)

Section	2014	2015	2016	2017	2018	2019	2020	2021	2022
All items	100	100	100	100	100	100	100.00	100.00	100.00
Food and beverages	10.55	9.56	11.45	10.29	8.99	8.93	6.79	7.83	7.80
Mineral products, cement and electricity	46.19	50.39	53.45	51.33	47.84	62.44	70.64	59.19	54.96
Chemicals, plastics, textiles and apparel	7.45	9.49	7.64	7.03	4.65	2.98	1.53	1.10	1.26
Wood, pulp and paper	1.07	1.01	0.93	0.68	1.20	0.58	0.27	0.34	0.26
Base metals and other manufactures	34.75	29.56	26.53	30.66	37.33	25.07	20.77	31.55	35.58
All items less electricity	69.99	65.86	63.80	67.32	73.61	64.86	43.41	57.82	60.84

Table 10: Import weights (%)

Section	2014	2015	2016	2017	2018	2019	2020	2021	2022
All items	100	100	100	100	100	100	100	100	100
Food and beverages	17.44	15.04	15.84	16.41	15.12	16.90	19.51	19.71	17.47
Mineral products, cement and electricity	26.72	20.84	21.25	23.57	26.45	25.36	19.49	19.58	23.13
Chemicals, plastics, textiles and apparel	10.88	9.64	9.23	9.63	10.28	11.52	11.13	13.31	12.65
Wood, pulp and paper	4.41	3.90	3.11	3.80	4.88	4.67	4.66	4.76	5.35
Metals and metal articles	17.46	15.33	10.76	11.77	11.09	13.04	9.96	7.42	9.33 27.25
Machinery, appliances and other manufactures	19.51	22.11	28.95	26.91	22.67	19.34	21.56	28.20	
Transport equipment	3.58	13.14	10.85	7.90	9.50	9.16	13.68	7.02	4.82

Technical note

Export and Import Price Index (XMPI) is a measure of average price change over the period for goods and services that are exported and imported. The export and import price index for Bhutan includes only the goods and excludes the services component.

The data for compilation of export and import price index are sourced from the Trade Statistics published by the Department of Revenue and Customs (DRC), Ministry of Finance. Prices for both export and import are based on FOB (Free-on-Board) values. Price for computation of index is based on unit value derived from the trade statistics. For electricity, data is sourced from the Druk Green Power Corporation.

US Import Price Index is used as proxy for import of machinery and equipment as the unit value based on trade statistics is not sufficiently reliable. The US import price index is adjusted for changes in exchange rate between the Ngultrum and the US dollar.

Items selection – Export and import baskets are updated annually using the annual trade statistics data. Selection of items for the basket are based on factors such as *FOB values; quarterly unit values; coefficient of variation (CV); and count of number of quarters that unit values are present during the latest nine quarters.*

For 2022 basket items, there are 43 items in the Export basket (36 items exported to India and 7 items exported to countries other than India) and 131 items in the Import basket (118 items imported from India and 13 items imported from countries other than India).

Terms of Trade - Terms of trade indexes measure the relative price of exports in terms of Import prices. It is calculated as the ratio of export prices to import prices and expressed in terms of 100. The terms of trade track the purchasing power of exports. It measures the changing quantity of imports that can be funded by a fixed quantity of exports. An increase in the terms of trade means that a larger quantity of imports can be funded by a fixed quantity of exports, while a decrease in the terms of trade means that a smaller quantity of imports can be funded by a fixed quantity of exports.

Frequency, timeline and revision - XMPI will be published on quarterly basis with a time lag of one quarter after the reference quarter. DRC provides provisional data for the first three quarters of the year and the finalized data for the year when providing the fourth quarter data. Hence, the index for the past three quarters may get revised when the final annual data is received.

Classification - Goods are classified using the Bhutan Trade Classification which is based on the International Harmonized System Classification

Weights - represents the relative importance of specific item to the overall exports or imports and determines the impact each item will have on the overall price change. Weights are updated annually along with annual basket selection.

Formula - Arithmetic Young upper-level formula is used to calculate the XMPI