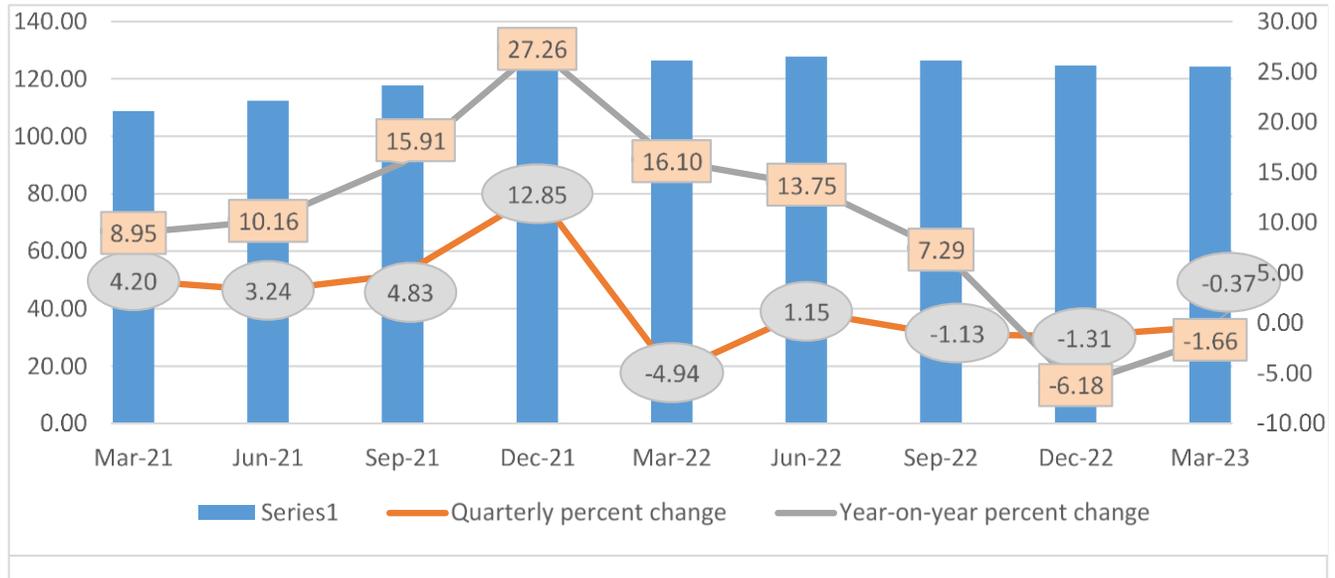




Export and Import Price Index: First Quarter (Jan- Mar), 2023

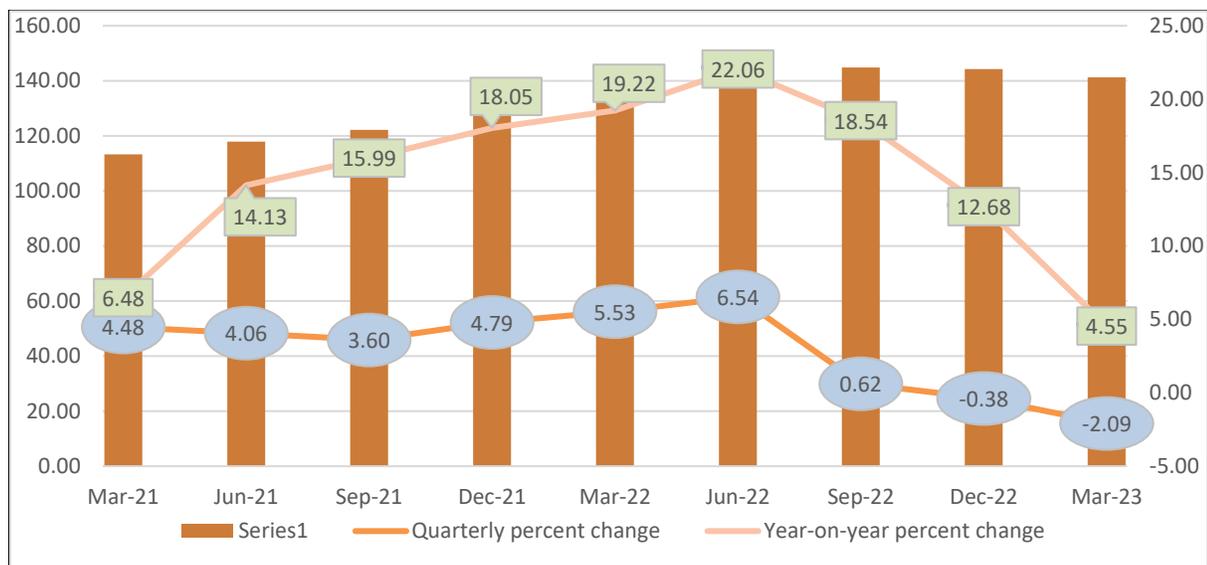
Export Price Index



Year-on-year inflation for export goods have decreased in the first quarter of 2023 by 1.66 percent compared to first quarter of 2022. The prices of food and beverage; mineral products, cement and electricity; the prices of wood, pulp and paper increased as compared to the first quarter of 2022. However the price for chemicals, plastics, textiles and apparels; base metals and other manufactures decreased as compared to the first quarter of 2022. Prices of food and beverage increased by 11.94 percent, prices of mineral products, cement and electricity increased by 3.23 percent and the price of chemicals, plastics, textiles and apparels increased by 21.75 percent. The export prices of wood pulp and paper increased by 11.38 percent and that of base metals and other manufactures decreased by -16.45 percent, as compared to the first quarter of 2022.

Quarter-on-quarter export price recorded a decrease in the first quarter by 0.37 percent. The decrease was mainly driven by the decrease in price of mineral products, cement and electricity by -0.01 percent and the price of base metals and other manufactures by 3.25 percent. However, the prices of food and beverage; have increased by 8.75 percent and the price of chemicals, plastics, textiles and apparel; increased by 4.44 percent and the price for wood, pulp and paper have increased by 14.68 percent in first quarter compared to first quarter of 2022.

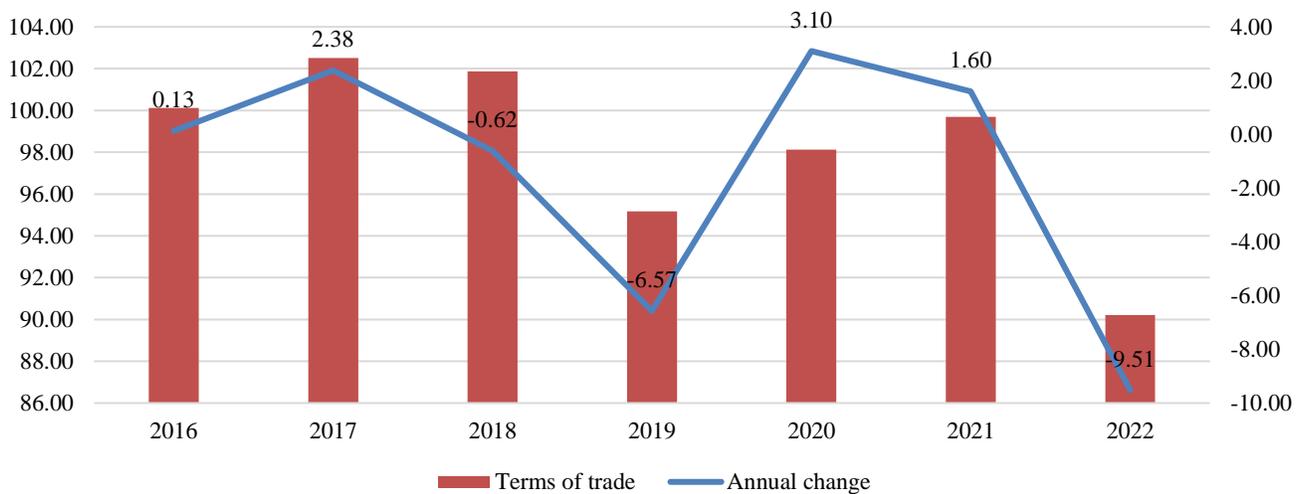
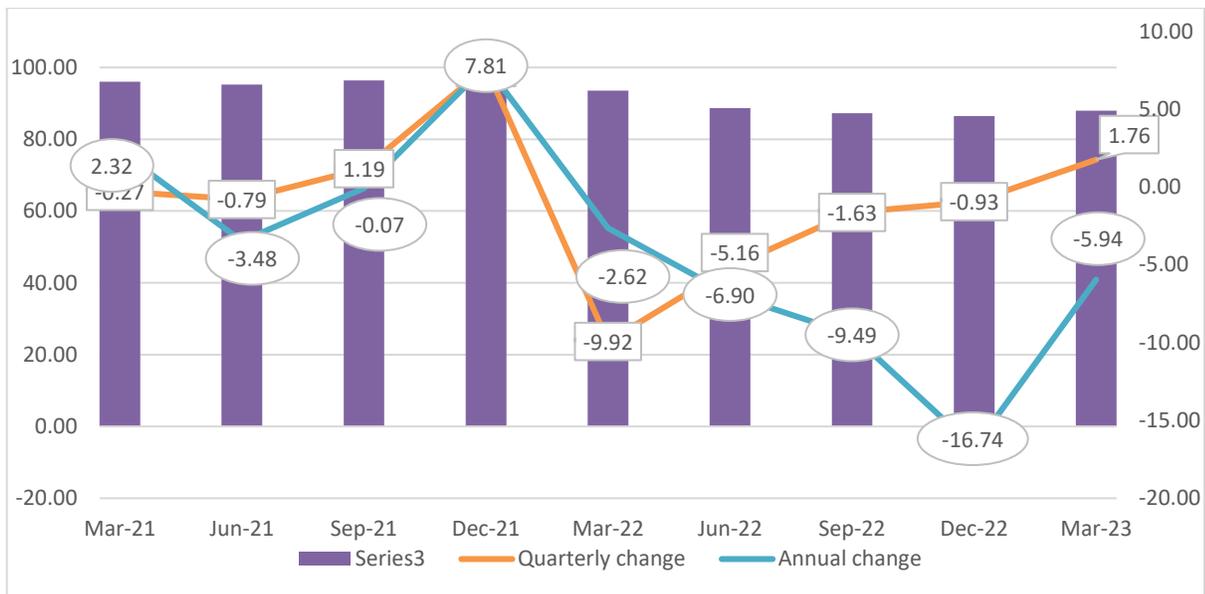
Import Price Index



The year-on-year inflation rate for imported goods recorded an increase of 4.55 percent in the first quarter of 2023 as compared to first quarter of 2022. All groups within the import category recorded an increase, except for price of metals and metal articles which recorded a decrease of 3.87 percent. Food and beverages group recorded decreased of 4.46 percent. The price for wood, pulp and paper decreased by 2.74 percent. Mineral products, cement and electricity recorded an increase of 6.13 percent. Chemicals, plastics, textiles and apparel increased by 16.34 percent followed by an increased in price of machinery, appliances and other manufactures by 9.21 percent. Prices for transport equipment; recorded decreased of 1.97 percent respectively.

The quarter-on-quarter (current quarter compared to previous quarter) import decreased by 2.09 percent which was a decline in the rate by 1 percentage point. The contributors to the decline, in comparison to the previous quarter, the price of Food and beverages; decreased by 3.22 percent, the price of mineral products, cement and electricity recorded a decline of 5.09 percent. The prices of wood, pulp and paper; decreased by 5.71 percent. The price for machinery, appliances and other manufactures; decreased by 0.80 percent respectively and transport equipment decreased by 6.36 percent compared to the previous quarter. Other categories the price of metal and metal articles recorded an increase of 3.70 percent and the prices for chemicals, plastics, textiles and apparel increased by 1.37 percent.

Terms of Trade



The terms of trade further increased to 87.95 in the first quarter from 86.43 in the fourth quarter of previous year, recording an increase by 1.76 percentage point. Compared to the first quarter of the previous year, the terms of trade dropped by 5.94 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

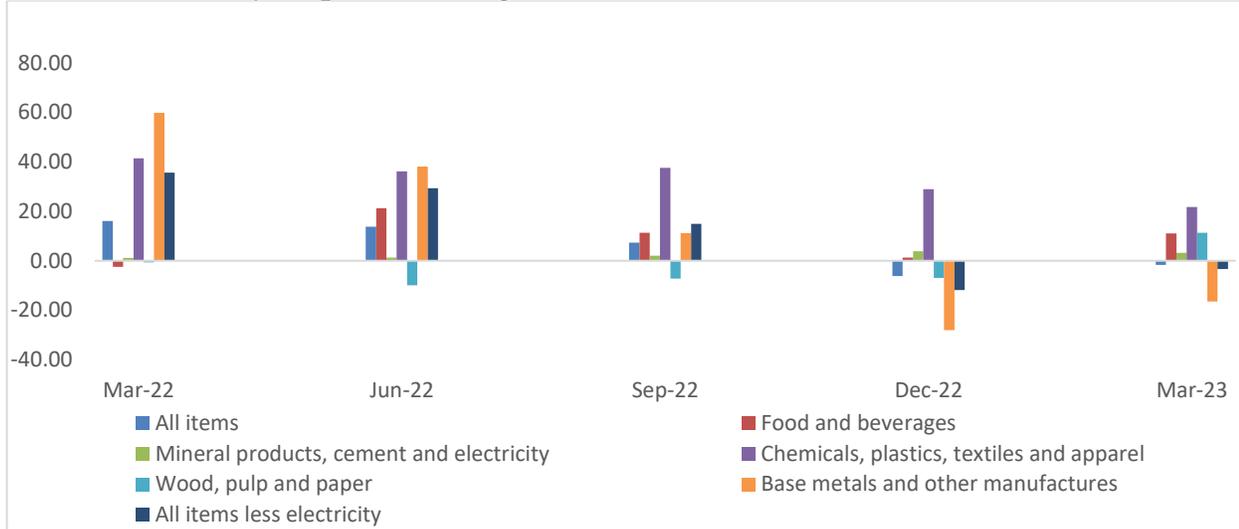


Chart 2: Quarter-on-quarter percent change

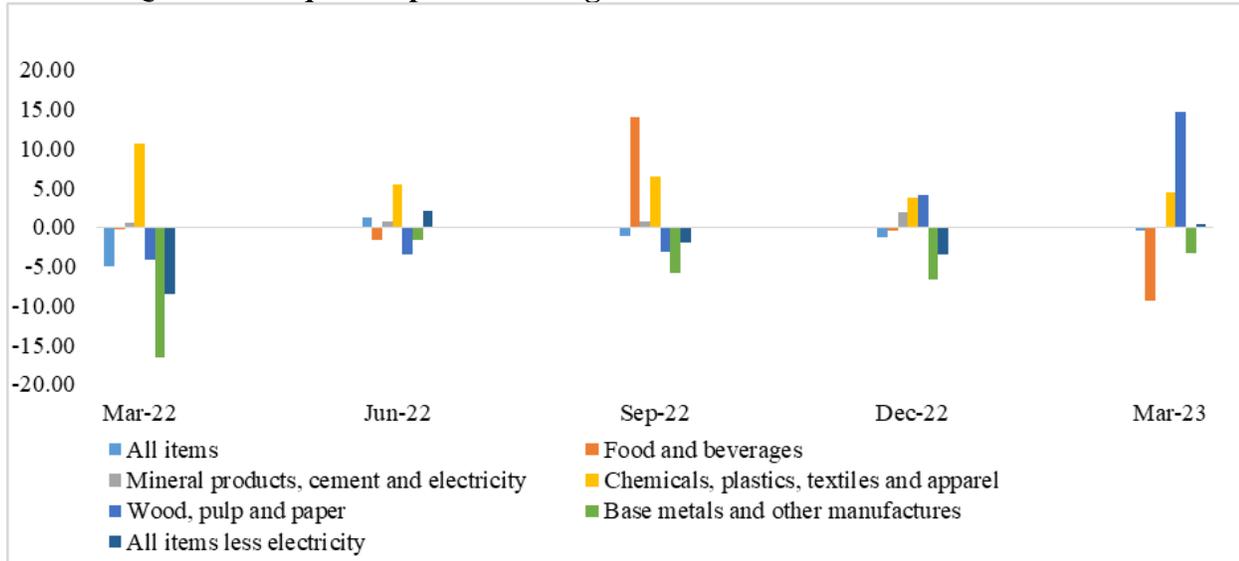
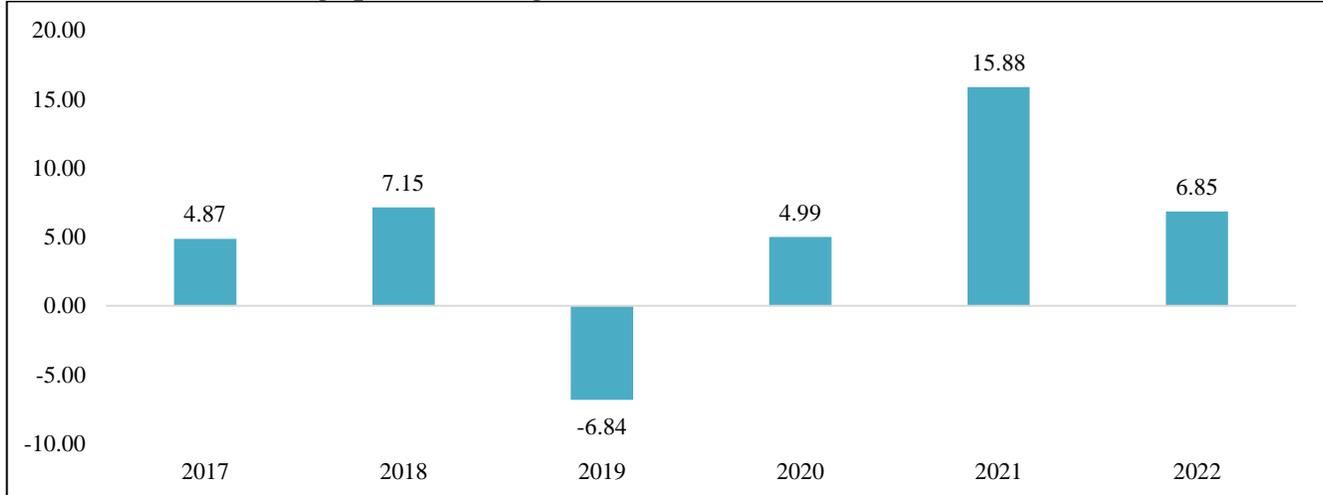


Chart 3: Annual average percent change



Import Price Index (Dec 2014 quarter = 100)

Chart 4: Year-on-year percent change

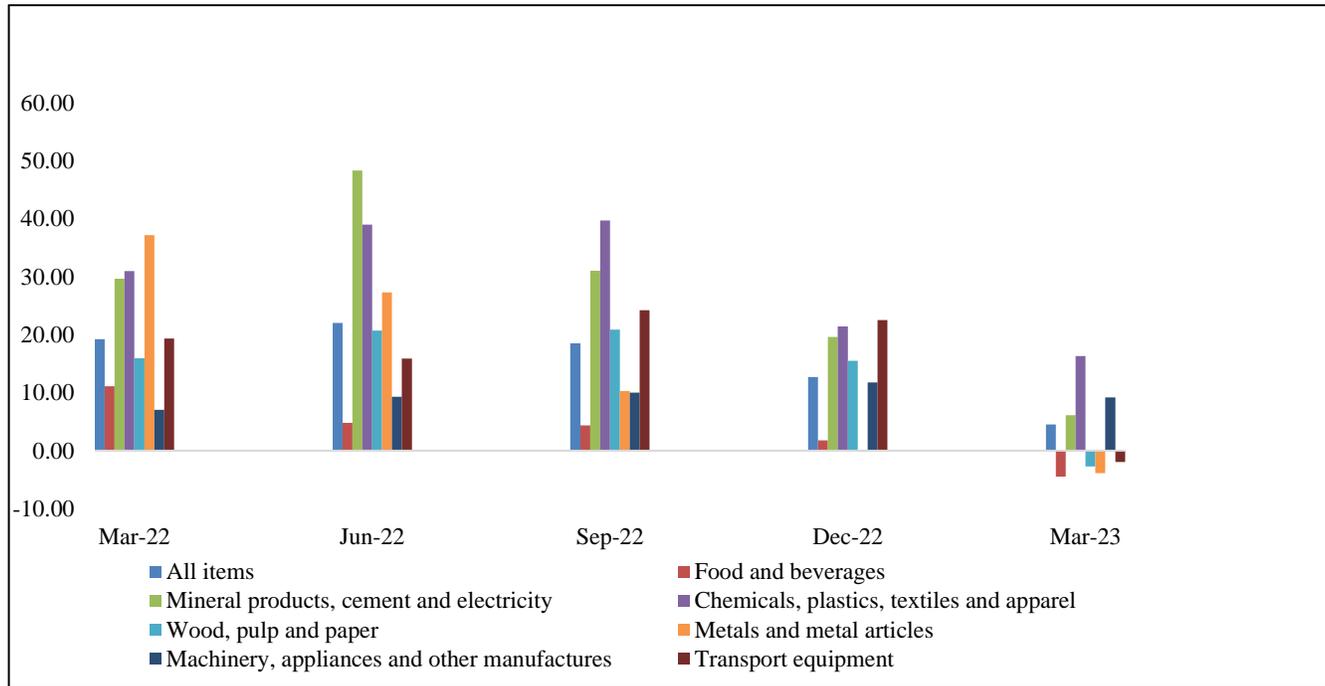


Chart 5: Quarter-on-quarter percent change

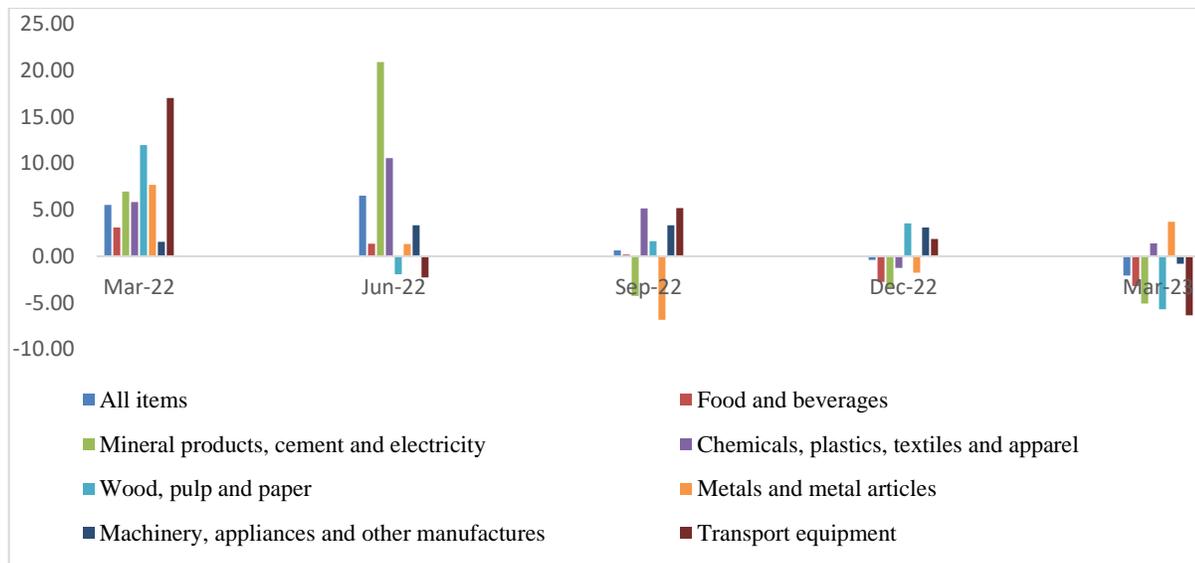
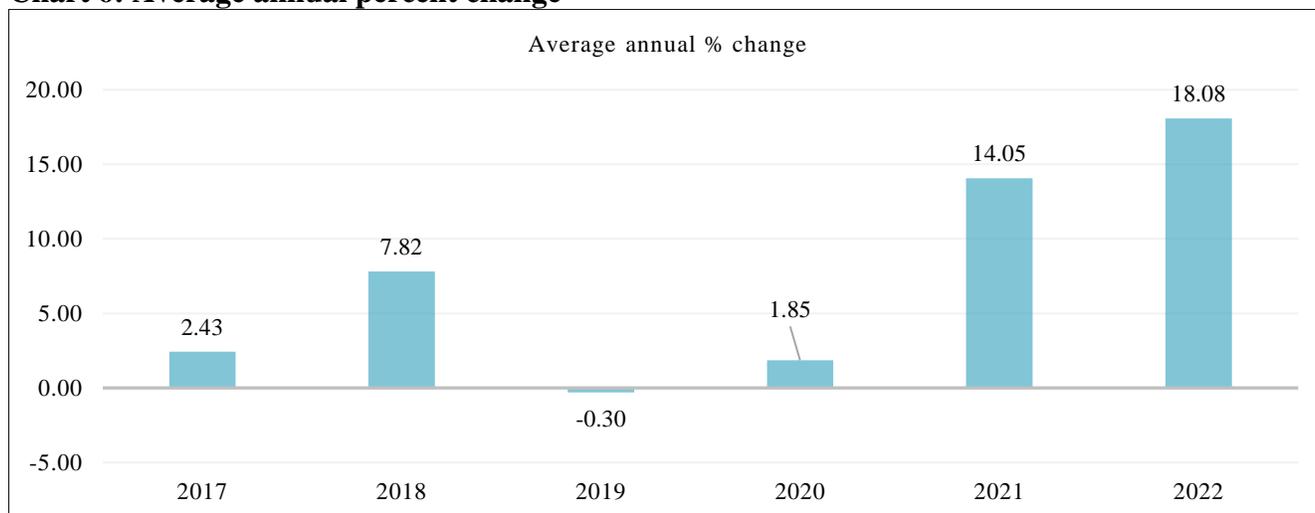


Chart 6: Average annual percent change**Table 1: Export Price Index (Dec 2014 quarter = 100)**

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
Mar-18	103.92	89.23	107.73	86.00	112.41	108.96	102.10
Jun-18	105.85	91.16	108.56	91.64	105.82	111.73	104.24
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

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
Mar-19	-2.95	1.78	2.72	5.95	-16.46	-12.79	-4.63
Jun-19	-6.92	-2.77	2.75	-4.07	-20.22	-20.34	-9.60
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

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
Mar-18	4.67	1.92	0.49	2.39	-1.61	13.25	6.64
Jun-18	1.85	2.17	0.77	6.56	-5.86	2.54	2.09
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	8.75	-0.01	4.44	14.68	-3.25	0.40

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
Mar-18	99.90	112.53	100.82	97.20	104.85	96.98	101.06	105.72
Jun-18	103.20	111.58	106.07	100.05	112.32	99.03	105.35	109.10
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	141.23	143.61	152.85	162.59	142.23	145.96	130.82	138.73

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
Mar-19	4.42	1.34	1.79	7.00	2.05	8.41	7.83	1.99
Jun-19	1.07	2.79	0.57	2.63	-7.52	-0.57	1.86	1.76
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	4.55	-4.46	6.13	16.34	-2.74	-3.87	9.21	-1.97

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
Mar-18	4.80	0.34	6.37	3.27	14.40	17.56	-0.26	4.90
Jun-18	3.30	-0.84	5.21	2.93	7.13	2.11	4.24	3.19
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	-2.09	-3.22	-5.09	1.37	-5.71	3.70	-0.80	-6.43

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

sTable 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
Machinery, appliances and other manufactures	19.51	22.11	28.95	26.91	22.67	19.34	21.56	28.20	27.25
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