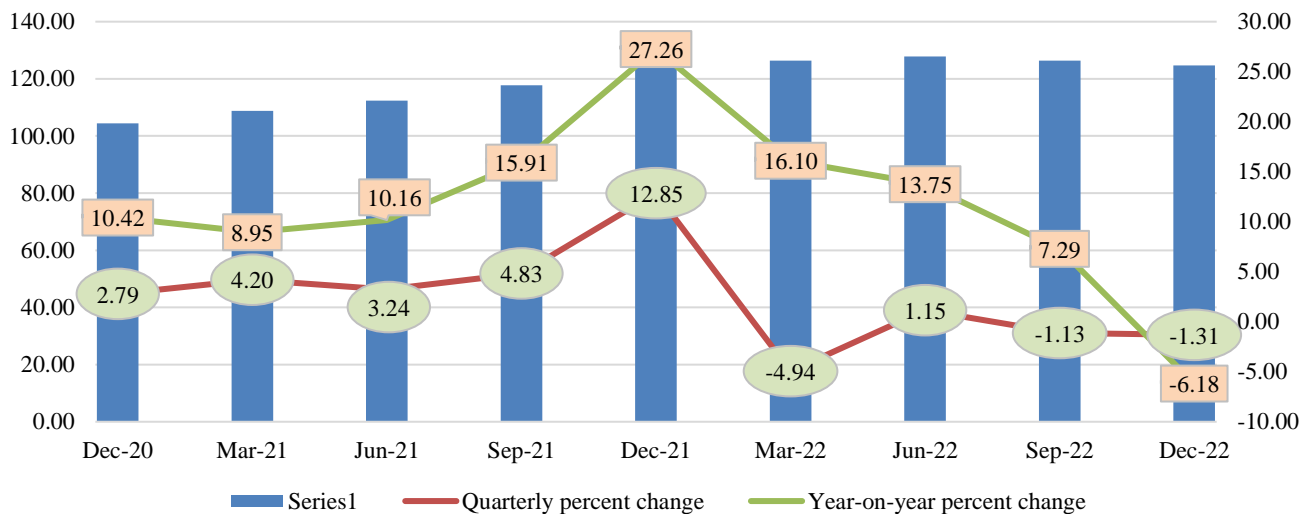




Export and Import Price Index: Fourth Quarter (Oct - Dec), 2022

Release date: 27th April, 2023

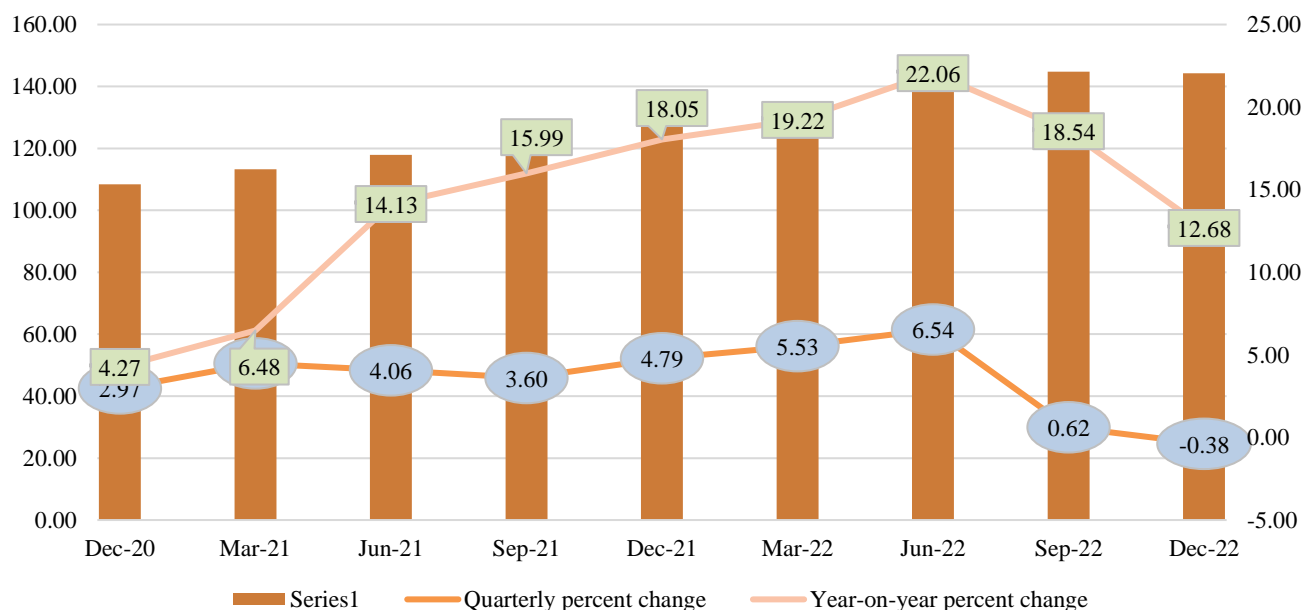
Export Price Index



Year-on-year inflation for export goods further slowed down in the fourth quarter of 2022 compared to the previous two quarters, with a 6.18 percent decrease compared to the fourth quarter of 2021. The prices of food and beverage; mineral products, cement and electricity; and chemicals, plastics, textiles and apparels increased as compared to the fourth quarter of 2021. However the prices of wood, pulp and paper and base metals and other manufactures decreased. Prices of food and beverage increased by 1.24 percent, prices of mineral products, cement and electricity increased by 3.84 percent and the price of chemicals, plastics, textiles and apparels increased by 28.91 percent. The export prices of wood pulp and paper decreased by 6.98 percent and that of base metals and other manufactures decreased by 28.04 percent, as compared to the last quarter of 2021.

Quarter-on-quarter export price recorded a decrease in the fourth quarter. It went down by 1.31 percent. The decrease was mainly driven by the decrease in price of food and beverage by 9.36 percent and that of base metals and other manufactures by 6.76 percent. However, prices of chemicals, plastics, textiles and apparel; and mineral products, cement and electricity increased in fourth quarter by 3.78 percent and 1.91 percent respectively. The prices for wood, pulp and paper also increased by 4.04 percent.

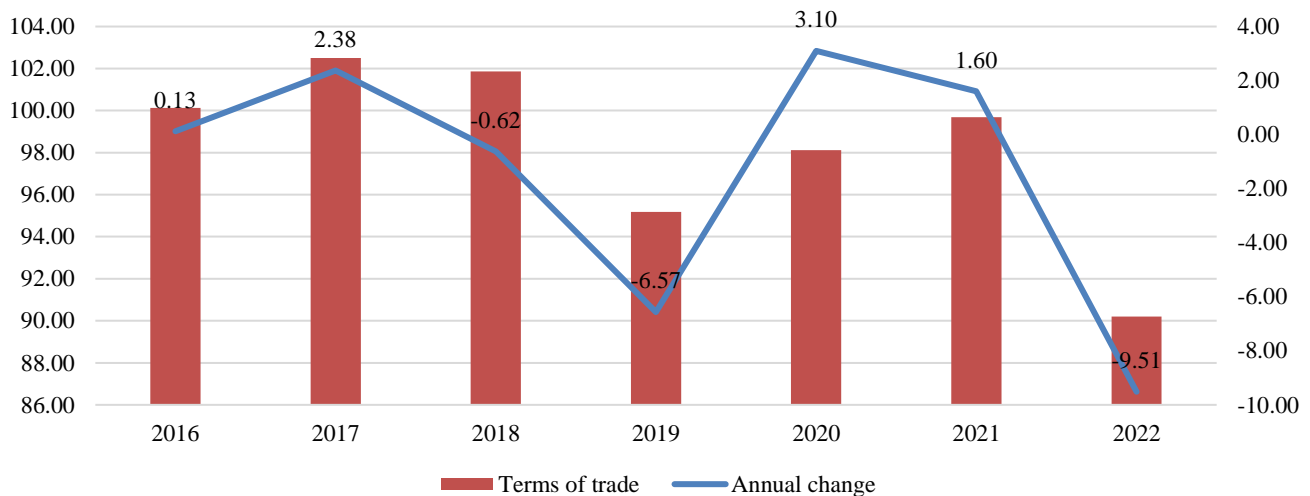
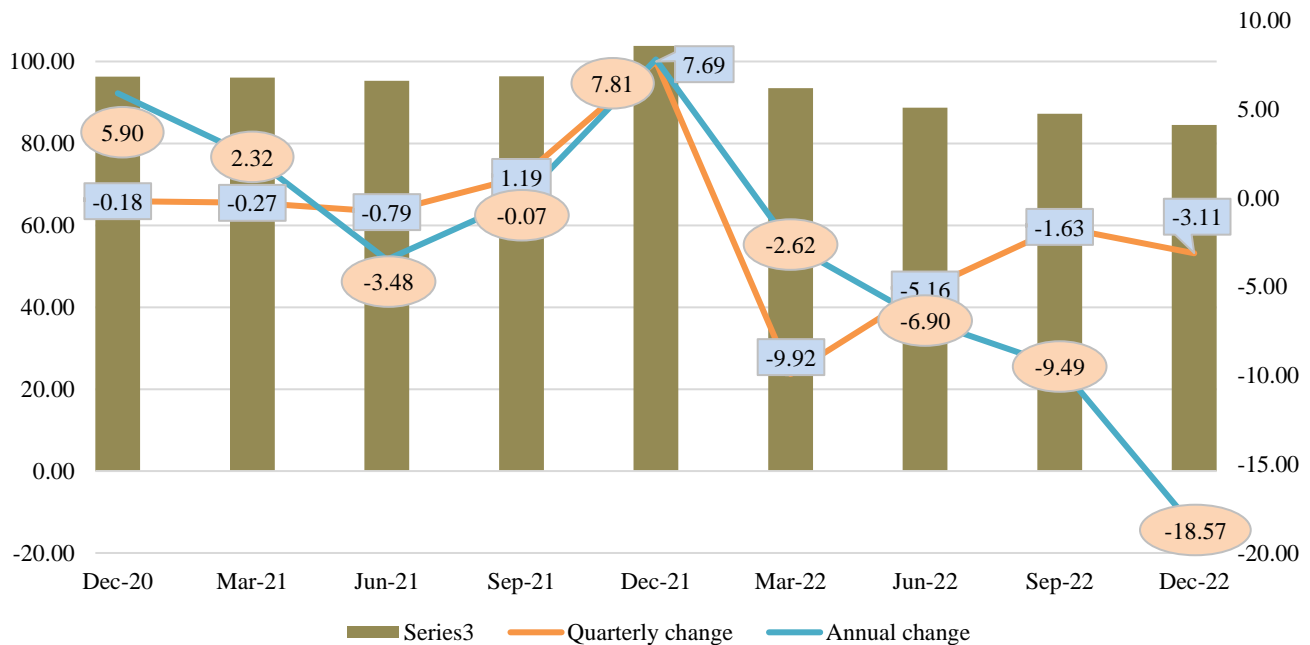
Import Price Index



The year-on-year inflation rate for imported goods recorded an increase of 12.68 percent in the fourth quarter of 2022 as compared to fourth quarter of 2021. All groups within the import category recorded an increase, except for metals and metal articles which recorded a decrease of 0.18 percent. Mineral products, cement and electricity recorded an increase of 19.63 percent. Chemicals, plastics, textiles and apparel increased by 21.46 percent followed by wood, pulp and paper with 15.51 percent. Food and beverages group recorded an increase of 1.79 percent. Prices for transport equipment; and machinery, appliances and other manufactures recorded an increase of 22.53 percent and 11.78 percent respectively.

The quarter-on-quarter (current quarter compared to previous quarter) import decreased by 0.38 percent which was a decline in the rate by 1 percentage point. The contributors to the decline, in comparison to the previous quarter, were mineral products, cement and electricity which recorded a decline of 3.38 percent, metal and metal articles which recorded a decrease of 1.78 percent. Food and beverages also recorded a decline of 2.76 percent. Prices for chemicals, plastics, textiles and apparel decreased by 1.25 percent. The prices for the three other categories of wood, pulp and paper; machinery, appliances and other manufactures; and transport equipment increased by 3.53, 3.10 and 1.86 percent respectively.

Terms of Trade



Due to the higher increase of prices for imported goods vis-a-vis export goods, the terms of trade further dropped to 84.54 in the fourth quarter from 87.25 in the third quarter, recording a decline by 2.71 percentage point. Compared to the fourth quarter of the previous year, the terms of trade dropped by 18.57 percent. And the terms of trade for the year 2022 decreased by 9.51 percent as compared to 2021.

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

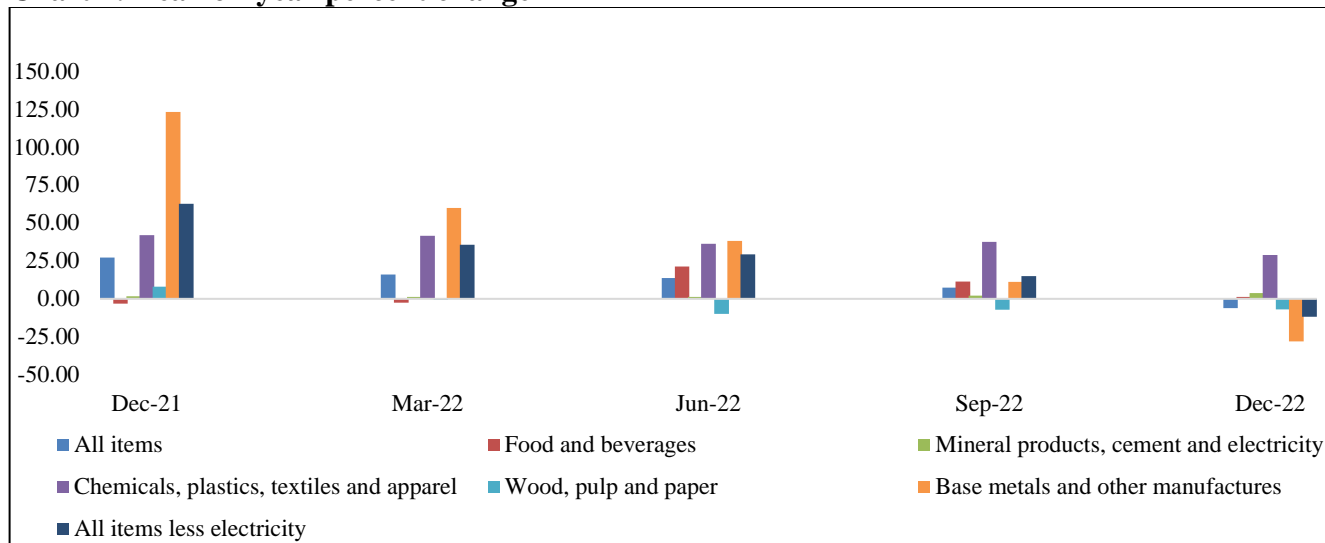


Chart 2: Quarter-on-quarter percent change

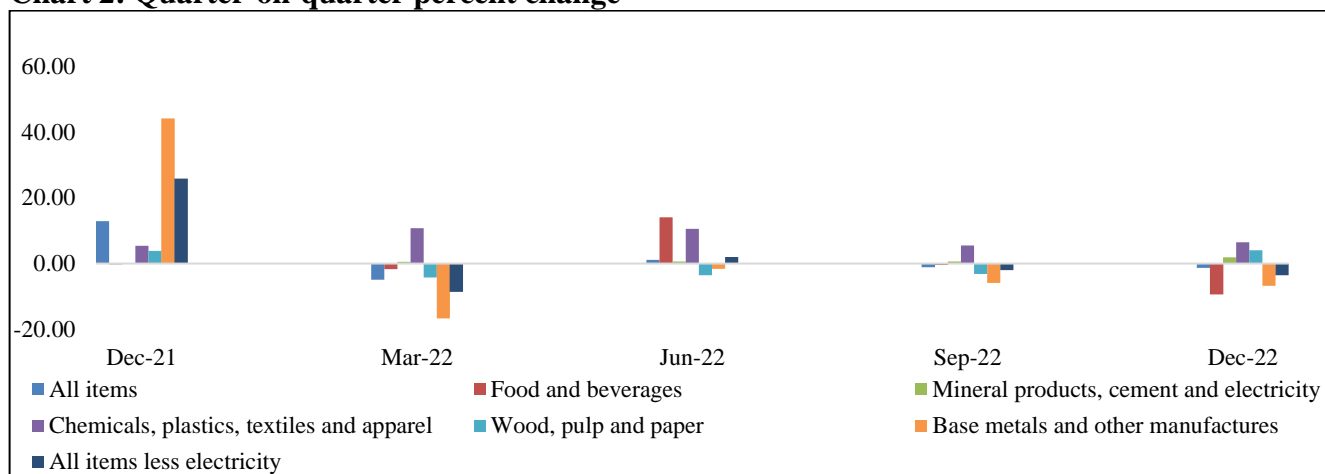
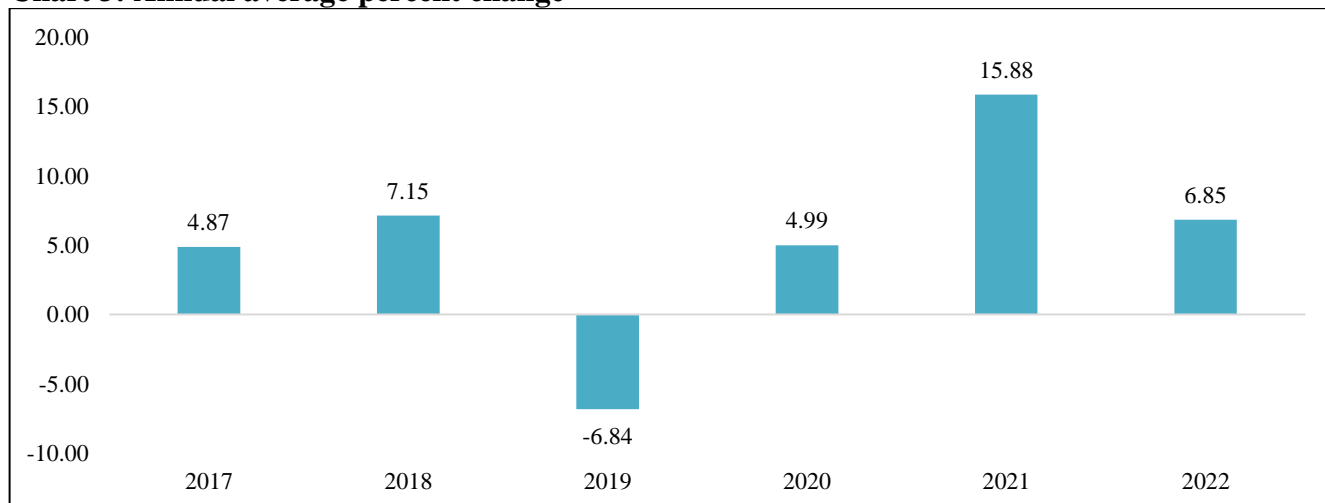


Chart 3: Annual average percent change



Import Price Index (Dec 2014 quarter = 100)

Chart 4: Year-on-year percent change

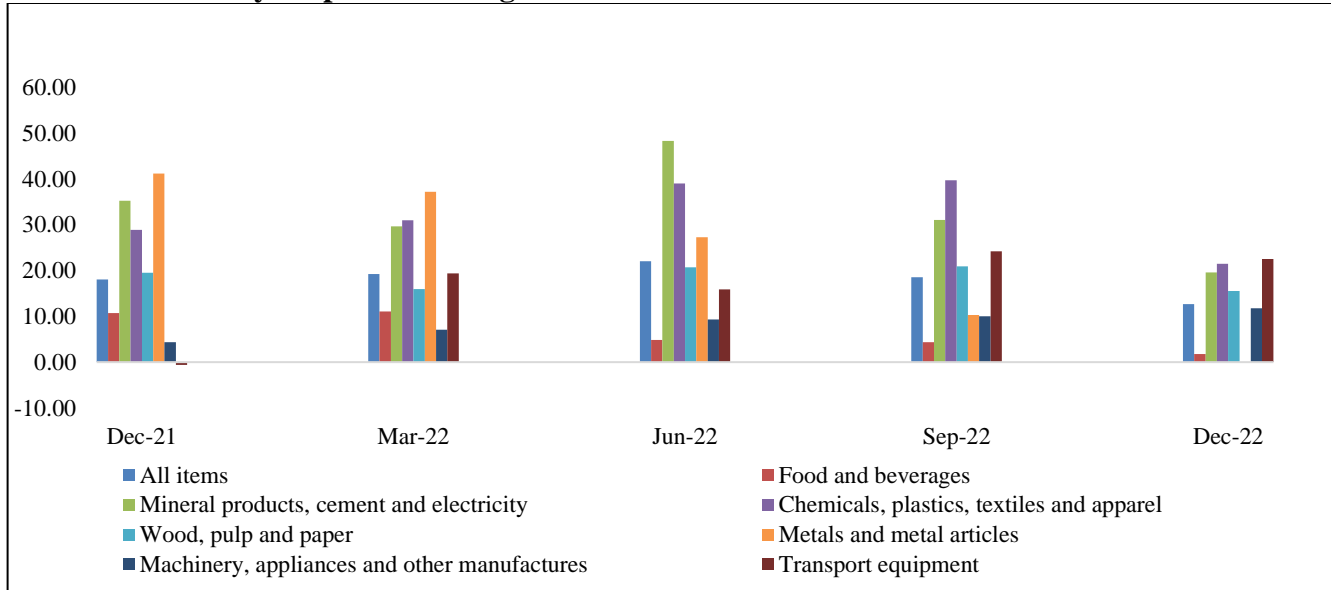


Chart 5: Quarter-on-quarter percent change

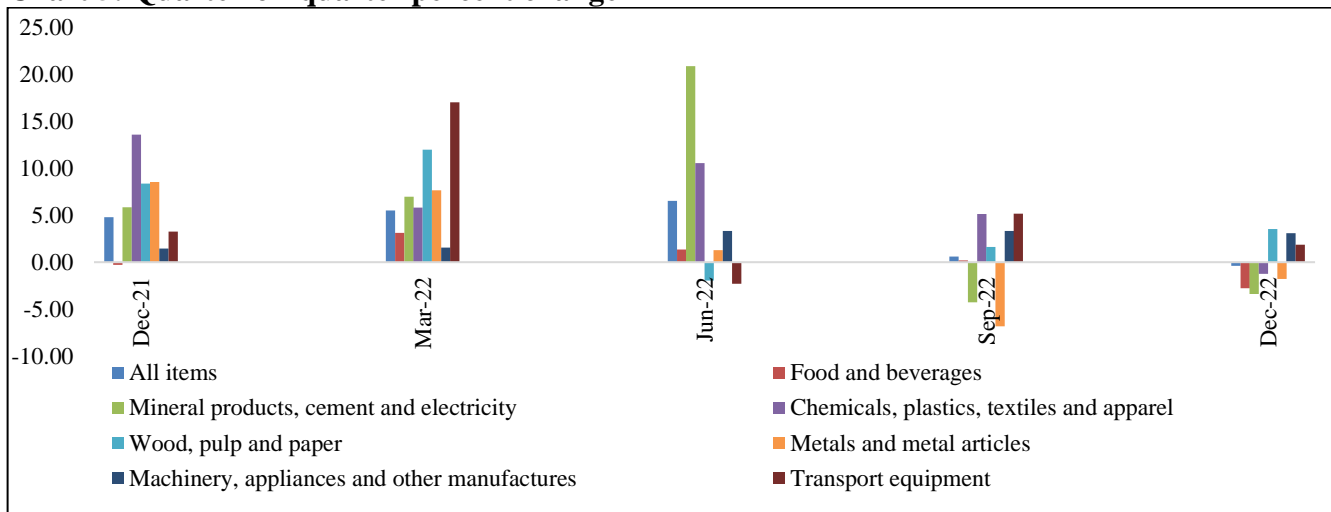


Chart 6: Average annual percent change

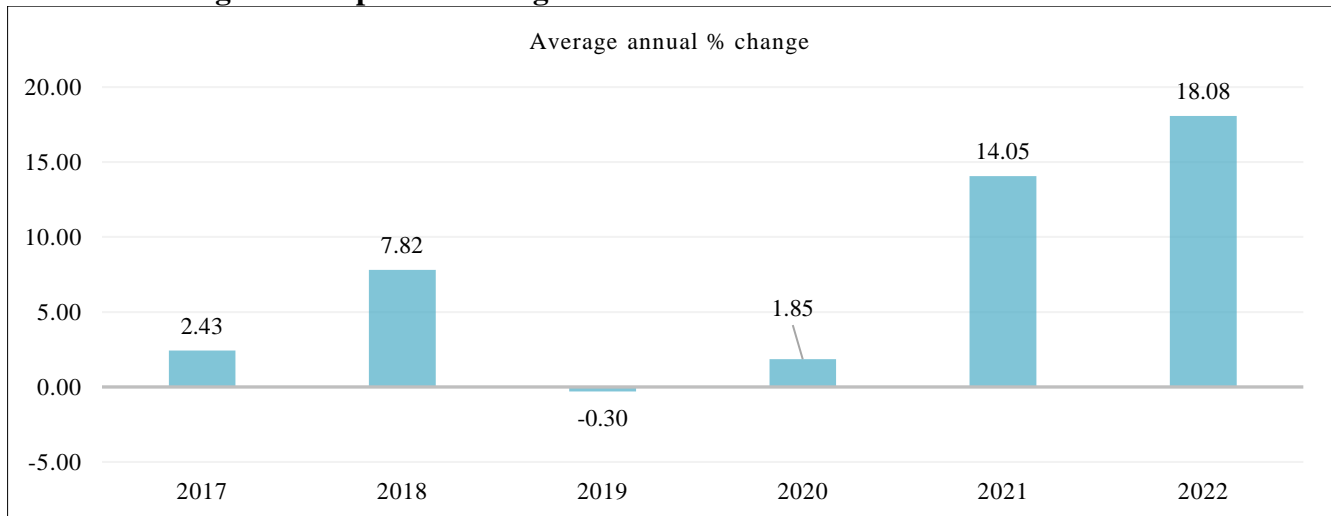


Table 1: Export Price Index (Dec 2014 quarter = 100)

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
Dec-17	99.29	87.55	107.21	84.00	114.25	96.22	95.75
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

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
Dec-18	4.49	0.67	1.71	10.63	-15.48	9.45	5.72
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

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

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
Dec-17	95.32	112.15	94.78	94.12	91.65	82.49	101.33	100.79
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

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
Dec-18	13.61	0.94	17.68	17.06	17.91	24.62	10.81	14.68
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

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

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

Table 10: Import weights (%)

Section	2014	2015	2016	2017	2018	2019	2020	2021
All items	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
Mineral products, cement and electricity	26.72	20.84	21.25	23.57	26.45	25.36	19.49	19.58
Chemicals, plastics, textiles and apparel	10.88	9.64	9.23	9.63	10.28	11.52	11.13	13.31
Wood, pulp and paper	4.41	3.90	3.11	3.80	4.88	4.67	4.66	4.76
Metals and metal articles	17.46	15.33	10.76	11.77	11.09	13.04	9.96	7.42
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

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