





**STATISTICAL RELEASE** 

*In reply please quote:* Our ref: NBS/S.40/21/488

Date: February, 2019

## **EXPORT AND IMPORT PRICE INDICES FOR DECEMBER, 2018**

### **Background notes**

### Definition

The Export and Import Price Indices (XMPI) are measures of price changes of goods imported into or exported outside the country. The XMPI are used to analyse Terms of Trade (ToT) which is the ratio of Export Price Index (XPI) to the Import Price Index (MPI).

The Export and Import Price Index (XMPI) covers both exports and imports of merchandise trade. These quarterly specification-based XMPI have been compiled and disseminated since the first quarter of 2013 up to the last quarter 2017 with reference base period of March quarter 2013. The updated XMPI has the fourth quarter of 2017 as the reference base period. The updating of the weights and the product sample for the XMPI used customs data for the years 2014 to 2016. Initiation of price collection for the updated XMPI was carried out during the period October-December 2017. This allows for the compilation of the XMPI for the fourth quarter of 2017 using the new product and enterprise samples.

### Weights and a reference period

The XMPI weights are based on values of imported and exported commodities for the years 2014 to 2016. A top-down approach was taken in the determination of the index structure, composition and the allocation of the weights. The aim was to maximize the indirect representation of un-priced commodities in the index, through a chain of representation. The price reference period is the quarter ending December 2017.

#### **Product Classification**

The products are classified according to the United Nations Harmonized Commodity Description and Coding System (HS). The HS is an international nomenclature for the classification of products.

#### Methodology

**Selection of items**: In the selection of items, a top - down procedure was applied in three steps. First the major 2 digit HS chapters contributing to the total value of imports in terms of the sum of values for the year 2014 to 2016 were selected for direct inclusion in the indices. 14 chapters (2 digit HS codes) were selected for imports and 12 chapters for exports out of 99 chapters representing 80 percent or more depending on the degree of concentration. Secondly, the process was repeated at 4 digit level of HS; 73 items were selected for imports and 19 items were selected for exports. Finally the procedure was repeated at 8 digit level of the HS by selecting 178 items for imports and 23 items for exports. The result of these procedures was the derivation of the structure and composition of the indices.

The XMPI has incorporated a number of methodological improvements including the use of geometric means for compiling elementary index aggregates, the use of an improved index compilation system, and improved procedures for collecting and processing prices. The Laspeyres index formula was used to compute higher level aggregates for the XMPI. **Chart 1** depicts trend of XPI and MPI in the selected quarters.

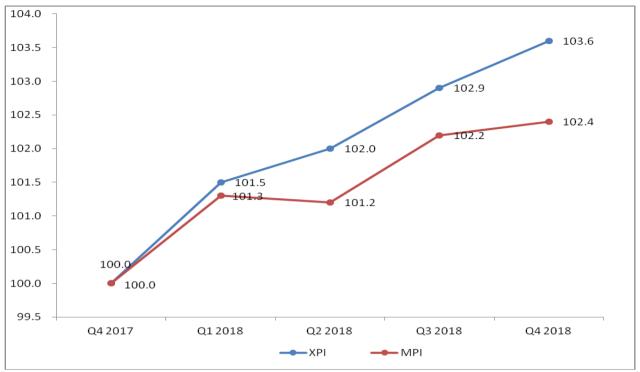


Chart 1: Quarterly Export and Import Price Indices (Q4 2017=100).

Q1=January-March, Q2=April-June, Q3=July-September, Q4=October-December

#### **Export Price Index**

#### Structure of the XPI

The XPI covers 12 chapters out 99 chapters, namely; (i) Fish and crustacean, mollusk and other aquatic invertebrate, (ii) Edible vegetables and certain roots and tubers, (iii) Edible fruits and nuts, peel of citrus fruit or melons, (iv) Coffee, tea, mate and spices, (v) Oil seed, oleagi fruits; miscell grain, seed, fruit etc, (vi) Animal/veg fats & oil & their cleavage products; etc, (vii) Residues & waste from the food indust; prepr ani fodder, (viii) Tobacco and manufactured tobacco substitutes, (ix) cotton, (x) Wadding, felt & nonwoven; yarns; twine, cordage, etc, (xi) Glass and glassware and (xii) Natural/cultured pearls, precious stones and metals, coin, etc. The sampled twelve chapters constitute 80 percent of total value of exports, aggregated from 2014 to 2016.

#### **Quarterly Export Price Index**

The overall export price index during the fourth quarter of 2018 increased slightly by 0.7 percent to 103.6 compared to 102.9 recorded in the previous period. The rise was mainly explained by the increase in prices of Natural/cultured pearls, prec stones & metals, glass

and glassware. When compared to the corresponding quarter of 2017 the export price index increased by 3.6 percent (**Table1**).

HS Code	Description	Weight	Q4 2017	Q2 2018	Q3 2018	Q4 2018	% Change Previous Quarter	% Change the same quarter las year
Overall		100	100.0	102.0	102.9	103.6	0.7	3.6
03	Fish & crustacean, mollusc & other aquatic invertebrate	6.2	100.0	101.9	103.6	102.4	-1.1	2.4
07	Edible vegetables and certain roots and tubers	11.4	100.0	102.2	102.4	102.2	-0.2	2.2
08	Edible fruit and nuts; peel of citrus fruit or melons	17.4	100.0	105.7	106.3	96.0	-9.7	-4.0
09	Coffee, tea, mate and spices	4.3	100.0	98.6	96.0	96.0	0.0	-4.0
12	Oil seed, oleagi fruits; miscell grain, seed, fruit etc	4.2	100.0	103.3	110.6	110.8	0.2	10.8
15	Animal/veg fats & oil & their cleavage products; etc	7.4	100.0	101.7	102.3	102.4	0.1	2.4
23	Residues & waste from the food indust; prepr ani fodder	6.2	100.0	102.1	99.5	97.7	-1.8	-2.3
24	Tobacco and manufactured tobacco substitutes	5.9	100.0	101.5	102.1	104.3	2.2	4.3
52	Cotton	1.0	100.0	100.9	103.6	103.4	-0.2	3.4
56	Wadding, felt & nonwoven; yarns; twine, cordage, etc	4.9	100.0	103.4	105.4	109.3	3.7	9.3
70	Glass and glassware	2.2	100.0	101.1	101.7	107.0	5.2	7.0
71	Natural/cultured pearls, prec stones & metals, coin etc	28.9	100.0	101.9	101.2	111.6	10.3	11.6

### Table 1: Quarterly Export Price Indices by Chapter (Q4 2017 = 100)

**EXPORT PRICE INDICES (XPI)** 

*Q1=January-March, Q2=April-June, Q3=July-September, Q4=October-December* 

### Sub indices by Chapter

In order to understand movements of export price indices, chapter by chapter analysis has been undertaken.

### Chapter 03: Fish and crustacean, mollusk and other aquatic invertebrate

During the fourth quarter of 2018, the index for "Fish and crustacean, mollusk and other aquatic invertebrate" which account for 6.2 percent of the total weight decreased by 1.1 percent to 102.4 from 103.6. The decrease was mainly attributed to a fall in prices of both the frozen fish maws and the frozen nile perch. When compared to the corresponding quarter of 2017 the export price index increased by 2.4 percent.

### Chapter 07: Edible vegetables and certain roots and tubers

This chapter contributed 11.4 percent of the total weight of the exported commodities and the index for this chapter decreased slightly by 0.2 percent from 102.4 recorded in the third quarter to 102.2. When compared to the same quarter in the previous year, the XPI increased by 2.2 percent.

#### Chapter 08: Edible fruits and nuts, peel of citrus fruit or melons

The export price index for "Edible fruits and nuts", which accounts for 17.4 percent of the total weight, decreased by 9.7 percent to 96.0 from 106.3 recorded in the third quarter of 2018. Similarly, when compared to the same quarter of 2017 the export price index decreased by 4.0 percent.

#### Chapter 09: Coffee, tea, mate and spices

This chapter contributed 4.3 percent of the total weight of exported commodities. During the fourth quarter of 2018, "Coffee, tea, mate and spices" maintained the XPI of 96.0 as of the third quarter. Nonetheless, when compared to the similar quarter last year, the index declined by 4.0 percent.

#### Chapter 12: Oil seed, oleagi fruits; miscell grain, seed, fruit etc

This chapter accounts for 4.2 percent of the total weight. During the fourth quarter of 2018, index for "Oil seed, oleagi fruits; miscell grain, seed, fruit etc" increased slightly by 0.2 percent to 110.8 from 110.6. Likewise, when compared to the same quarter in the previous year, the index increased by 10.8 percent.

#### Chapter 15: Animal/veg fats & oil & their cleavage products; etc

The export price index for "Animal/veg fats & oil & their cleavage products; etc", which accounts for 7.4 percent of the total weight, increased slightly by 0.1 percent to 102.4 in the fourth quarter of 2018 when compared to the previous quarter. Similarly, when compared to the similar quarter of 2017 the export price index increased by 2.4 percent.

#### Chapter 23: Residues & waste from the food industries; prepared animal fodder

The export price index for "Residues & waste from the food industries; prepared animal fodder", which accounts for 6.2 percent of the total weight, decreased by 1.8 percent to 97.7 in the fourth quarter of 2018 when compared to 99.5 of the previous period.

The negative performance was a result of the decrease in the price of sunflower seed meal due to increase in supply of sunflower in the market. Similarly, when compared to the same quarter of 2017 the export price index decreased by 2.3 percent.

#### Chapter 24: Tobacco and manufactured tobacco substitutes

This chapter accounts for 5.9 percent of the total weight. During the fourth quarter of 2018, index for "Tobacco and manufactured tobacco substitutes" increased by 2.2 percent to 104.3 compared to 102.1 of the previous period. Likewise, when compared to the similar quarter in the previous year, the XPI increased by 4.3 percent.

#### Chapter 52: Cotton

During the fourth quarter of 2018 the export price index for "Cotton", which accounts for 1.0 percent of the total weight, decreased marginally to 103.4 compared to 103.6 of the third quarter. However, when compared with the same quarter in the preceding year the index increased by 3.4 percent.

#### Chapter 56: Wadding, felt & nonwoven; yarns; twine, cordage, etc

This chapter contributed 4.9 percent of the total weight of exported commodities. During the fourth quarter of 2018, "Wadding, felt & nonwoven; yarns; twine, cordage, etc" recorded XPI of 109.3, equivalent to 3.7 percent increase compared to 105.4 of the third quarter. The positive performance was mainly attributed by the increase in the prices of sisal yarn. Similarly, when compared to the same quarter in the previous year, the index increased by 9.3 percent.

#### Chapter 70: Glass and glassware

During the fourth quarter of 2018 the export price index for "Glass and glassware", which accounts for 2.2 percent of the total weight, increased by 5.2 percent to 107.0 compared to 101.7 of the third quarter. The positive performance was mainly related to the increase in prices of the empty bottles. Likewise, when compared to the similar quarter in the previous year, the XPI increased by 7.0 percent.

#### Chapter 71: Natural/cultured pearls, precious stones and metals, coin etc

The export price index for "Natural/cultured pearls, precious stones and metals, coin etc", which account for 28.9 percent of the total weight of exported commodities, increased by 10.3 percent to 111.6 from 101.2 recorded in the third quarter. The positive performance was mainly attributed by the increase in the prices of gold due to high investment demand of gold. Similarly, when compared to the similar quarter of 2017 the export price index increased by 11.6 percent.

#### **Import Price Index**

#### **Structure of the MPI**

The MPI covers 14 chapters out of 99 chapters, namely; (i) Cereals, (ii) Animal fats and oil & their cleavage product, (iii) Mineral fuels, oils and product of their distillation, (iv) Pharmaceutical products, (v) Fertilizers, (vi) Miscellaneous chemical products, (vii) Plastics and articles thereof, (viii) Rubber and articles thereof, (ix) Iron and steel, (x) Articles of iron and steel, (xi) Nuclear reactors, boilers, machinery and machinery appliance, parts, (xii) Electrical machinery equipments parts thereof; sound recorder etc, (xiii) Vehicles other than railway/transport way rool-stock, parts and accessories and (xiv) Optical, photo, cine, meas, checking, precision, etc. The sampled fourteen chapters constitute 80 percent of total value of imports aggregated from 2014 to 2016.

#### **Quarterly Import Price Index**

The overall Import Price Index for the fourth quarter of 2018 increased marginally by 0.2 percent to 102.4 compared to the 102.2 percent of the third quarter Likewise, when compared to the same quarter of 2017 the index increased by 2.4 percent (**Table 2**).

#### % Change % Change HS same Q4 2017 Q2 2018 Q3 2018 Q4 2018 Description Weight Previous Code Quarter Quarter last year Overall 101.2 100.0 100.0 102.2 102.4 0.2 2.4 10 100.0 100.6 0.1 Cereals 4.1 101.7 101.8 1.8 15 Animal/veg fats & oil & their cleavage products; etc 4.2 100.0 97.9 97.1 97.8 0.8 -2.2 27 Mineral fuels, oils & product of their distillation; etc 21.7 100.0 117.4 118.1 129.5 9.6 29.5 30 101.1 Pharmaceutical products 5.2 100.0 101.7 102.5 0.8 2.5 31 Fertilisers 100.0 105.7 107.9 108.7 0.8 8.7 1.8 38 2.0 100.0 100.3 Miscellaneous chemical products 98.0 92.0 -6.1 -8.0 39 Plastics and articles thereof 6.2 100.0 98.6 99.2 101.5 2.4 1.5 40 Rubber and articles thereof 100.0 89.4 93.5 95.2 2.8 1.8 -4.8 72 Iron and steel 100.0 102.1 103.0 105.6 5.3 2.5 5.6 73 Articles of iron and steel 4.0 100.0 101.3 104.4 102.5 -1.9 2.5 84 Nuclear reactors, boilers, mchy & mech appliance; r 15.2 100.0 102.0 105.9 109.7 3.6 9.7 85 Electrical mchy equip parts thereof; sound recorder 10.9 100.0 98.2 101.4 100.9 -0.4 0.9 87 Vehicles o/t railw/tranw rool-stock, pts & accessorie 14.4 100.0 101.2 97.3 97.3 0.0 -2.7 90 Optical, photo, cine, meas, checking, precision 2.1 100.0 101.2 102.3 89.2 -12.8 -10.8

#### Table 2: Quarterly Import Price Indices by Chapter (Q4 2013 = 100)

**IMPORT PRICE INDICES (MPI)** 

Q1=January-March, Q2=April-June, Q3=July-September, Q4=October-December

#### Sub indices by Chapter

This section analyses movements of import price indices for each chapter.

### **Chapter 10: Cereals**

This chapter accounts for 4.1 percent of the total weight. During the fourth quarter of 2018, the import price index for "Cereals" increased slightly by 0.1 percent to 101.8 from 101.7 recorded in the third quarter. Likewise, when compared to the same quarter in the previous year the index increased by 1.8 percent.

#### Chapter 15: Animal fats and oil and their cleavage product

This chapter contributes 4.2 percent of the total weight of the imported commodities and recorded MPI of 97.8 in the fourth quarter of 2018, representing an increase of 0.8 percent from 97.1 of the third quarter of 2018. However, when compared to the same quarter in the preceding year the index decreased by 2.2 percent.

#### Chapter 27: Mineral fuels, oils and product of their distillation

During the fourth quarter of 2018, import price index for "Mineral fuels, oils and product of their distillation" which contributes 21.7 percent to the total weight of the imported

commodities increased by 9.6 percent to 129.5 from 118.1 of the third quarter. The performance was largely attributed by the insufient global oil stock which causes oil prices to rise in the world market. Similarly, when compared to the similar quarter of 2017 the export price index increased by 29.5 percent.

#### **Chapter 30: Pharmaceutical products**

The index for "Pharmaceutical products" which represent about 5.2 percent of the total weight increased marginally from 101.7 recorded in the third quarter to 102.5 recorded in the fourth quarter of 2018. However, when compared to the same quarter in the previous year the index increased by 2.5 percent.

#### **Chapter 31: Fertilizers**

The index for "Fertilizers" which accounts for 1.8 percent of the total weight of the imported commodities increased slightly by 0.8 percent to 108.7 during the fourth quarter of 2018 compared to 107.9 recorded in the third quarter. When compared to the same quarter in the previous year the index increased by 8.7 percent.

#### **Chapter 38: Miscellaneous chemical products**

The index for "Miscellaneous chemical products" which accounts for 2.0 percent of the total weight decreased by 6.1 percent to 92.0 during the fourth quarter of 2018 compared to 98.0 recorded in the third quarter. The decrease was mainly attributed by the decrease in prices of chemical products. Likewise, when compared to the similar quarter last year, the index declined by 8.0 percent.

#### **Chapter 39: Plastics and articles thereof**

This chapter contributes 6.2 percent to the total weight of imported commodities. The index increased by 2.4 percent to 101.5 in the fourth quarter of 2018 from 99.2 recorded in the previous quarter. The performance was caused by the increase in prices of polymer polyol, Exxonmobil and plastic closures. Similary, when compared to the corresponding quarter in 2016, the index increased significantly by 1.5 percent.

#### **Chapter 40: Rubber and articles thereof**

During the fourth quarter of 2018, the index for "Rubber and articles thereof" which contributes 2.8 percent to the total weight of imported commodities, increased by 1.8 percent to 95.2 from 93.5 recorded in the third quarter. The performance was attributed by the increase in the prices of brand new tyres for cars and trucks. However, when compared to the same quarter in the previous year the index decreased by 4.8 percent.

#### Chapter 72: Iron and steel

In the fourth quarter of 2018, the index for "Iron and steel", which accounts for 5.3 percent of the total weight, increased by 2.5 percent to 105.6 from 103.0 recorded in the third quarter. The performance was attributed by the imposition of tariffs on by the U.S on steel and aluminium imports from China causing global effects. Similarly, when compared to the similar quarter of 2017 the export price index increased by 5.6 percent.

#### Chapter 73: Articles of iron and steel

This chapter contributes 4.0 percent of the total weight. During the fourth quarter of 2018, the index for "Articles of iron and steel" decreased by 1.9 percent to 102.5 when compared to 104.4 of the previous quarter. The performance was attributed by the decrease in prices of iron and steel products such as bolt and screw. Nonetheless, the index inecreased by 2.5 percent when compared to the same quarter in 2017.

# Chapter 84: Nuclear reactors, boilers, machinery and mechanical appliance and parts

The index for "Boilers, machinery and machinery appliance" which accounts for 15.2 percent of total weight of imported commodities increased by 3.6 percent to 109.7 in the fourth quarter of 2018. The positive performance was related to the increase in prices of water pump, fan and condenser. Similarly, when compared with the corresponding quarter of 2017 the index rose by 9.7 percent from 105.4 recorded in 2016.

#### **Chapter 85: Electrical machinery equipment and parts thereof**

The index for "Electrical machinery equipment and parts thereof" decreased slightly by 0.4 percent to 100.9 in the fourth quarter of 2018 compared with 101.4 of the third quarter. Likewise, when compared to the same quarter in 2017, the index increased slightly by 0.9 percent.

#### Chapter 87: Vehicles other than railway/transport ways rool-stock

The index for "Vehicles other than railway/transport ways rool-stock" which accounts for 14.4 percent of total weight maintained the MPI of 97.3 in the fourth quarter of 2018. However, when compared to the same quarter in the previous year the index dedclined by 2.7 percent.

#### Chapter 90: Optical, photo, cine, meas, checking, precision, etc

This chapter accounts for 2.1 percent of the total weight. The index for "Optical, photo, cine, meas, checking, precision, etc" decreased by 12.8 percent to 89.2 in the fourth quarter of 2018 compared with 102.3 of the third quarter. The development was attributed by the decrease in prices of medical equipments and transmitter. Likewise, when compared to the similar quarter last year, the index declined by 10.8 percent.

#### **Terms of Trade**

The Terms of Trade Index is the ratio of export price index to import price index. During the fourth quarter of 2018, terms of trade index slightly improved making it favourable by an increase of 0.5 points when compared to the third quarter (**Table 3**).

	2017	2018					
Indices	Q4	Q1	Q2	Q3	Q4		
EXPI	100	101.5	102	102.9	103.6		
MPI	100	101.3	101.5	102.2	102.4		
ТОТ	100	100.2	100.5	100.7	101.2		

#### Table 3: Quarterly Terms of Trade (Q4 2017 = 100)

#### Note;

Q1=January-March, Q2=April-June, Q3=July-September, Q4=October-December

XPI = Export Price Index

MPI = Import Price Index

ToT = Terms of Trade

# **Contact person: Statistician General. National Bureau of Statistics**