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## **STATISTICAL RELEASE**

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## **EXPORT AND IMPORT PRICE INDICES (XMPI) FOR DECEMBER, 2016**

## **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).

## Weights and a reference period

The XMPI weights are based on values of imported and exported commodities for the years 2006 to 2010. A top-down approach was taken in the determination of the index structure and 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 March 2013.

## **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 2006 and 2010 were selected for direct inclusion in the indices. 12 chapters (2 digit HS codes) were selected for imports and 8

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; 56 items were selected for imports and 10 items were selected for exports. Finally the procedure was repeated at 8 digit level of the HS by selecting 170 items for imports and 18 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 (Q1 2013=100).

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

## **Export Price Indices**

### **Structure of the XPI**

The XPI covers 8 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 or melons, (iv) Coffee, tea, mate and spices, (v) Tobacco and manufactured tobacco substitutes, (vi) Ores, slag and ash, (vii) cotton and (viii) Natural/cultured pearls, precious stones and metals, coin, etc. The sampled eight chapters constitute 80 percent of total value of exports, aggregated from 2006 to 2010.

## **Quarterly Export Price Index**

The overall export price index during the fourth quarter of 2016 increased by 4.6 percent to 137.9 compared to the level recorded in the preceding quarter. The rise was mainly due to an increase in prices of edible fruits and nuts, coffee and tea, cotton and fish. When compared to the corresponding quarter of 2015 the export price index increased by 10.1 percent (**Table1**).

			2015	015 2016					% Change the same
Chap								on Previous	Quarter
ter	Description	Weight	Q4	Q1	Q2	Q3	Q4	Quarter	last year
ſ	Fish & crustacean, mollusc & other								
03	aquatic invertebrate	9.5	122.4	133.6	139.9	145.1	149.6	3.1	22.2
r i	Edible vegetables and certain roots								
07	and tubers	1.8	139.6	148.7	149.1	153.8	153.4	-0.3	9.9
r i	Edible fruit and nuts; peel of citrus								
08	fruit or melons	4.5	131.1	132.0	131.5	132.0	159.3	20.7	21.5
09	Coffee, tea, mate and spices	8.3	125.4	123.7	115.4	116.2	127.5	9.7	1.7
Í.	Tobacco and manufactured tobacco								
24	substitutes	11.6	156.9	152.4	154.0	158.4	161.8	2.1	3.1
26	Ores, slag and ash	16.7	116.2	114.8	117.0	119.3	119.5	0.2	2.8
			447.0	110.0	440.4	420.4	424.0	0.5	12.5
52	Cotton	4.6	117.2	116.9	119.1	120.4	131.8	9.5	12.5
Ī	Natural/cultured pearls, precious								
71	stones & metals, coin etc	43.0	93.3	98.5	104.0	109.5	100.4	-8.3	7.6
	Overal	100	125.3	127.6	128.8	131.8	137.9	4.6	10.1

Table 1: Quarterly Export Price Indices by Chapter (base year Q1 2013 = 100)

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 2016, the index for "Fish and crustacean, mollusk and other aquatic invertebrate" which account for 9.5 percent of the total weight went up by 3.1 percent to 149.6. The increase was mainly due to a rise in prices of fresh and frozen fillet.

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

This chapter contributed 1.8 percent of the total weight of the exported commodities and the index for this chapter decreased slightly by 0.3 percent from 153.8 in the third quarter 2016 to 153.4 in the fourth quarter 2016. However, when compared to the similar quarter of 2015 the export price index increased by 9.9 percent

#### **Chapter 08: Edible fruits and nuts**

The export price index for "Edible fruits and nuts" rose by 20.7 percent to 159.3 in the fourth quarter of 2016 when compared to the preceding quarter. This was due to a rise in prices of raw cashewnut and cashewnut and cashewnut kernel. When compared to the corresponding quarter in 2015, the index increased by 21.5 percent.

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

This chapter contributed 8.3 percent of the total weight of exported commodities. During the fourth quarter of 2016, "Coffee, tea, mate and spices" recorded XPI of 127.5, equivalent to 9.7 percent increase compared to XPI of 116.2 recorded during the third quarter of 2016. The increase was due to a rise in prices of coffee and tea in the world market. When compared to the similar quarter in the previous year, the XPI increased by 1.7 percent.

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

During the fourth quarter of 2016, index for "Tobacco and manufactured tobacco substitutes" increased by 2.1 percent to 161.8 compared to the level recorded in the third quarter of 2016. The rise was mainly due to slightly increase in world market price of tobacco. When compared to the same quarter in the previous year, the XPI increased by 3.1 percent.

#### Chapter 26: Ores, slag and ash

The export price index for "Ores, slag and ash" slightly increased to 119.5 in the fourth quarter of 2016 which is an increase of 0.2 percent compared to XPI of 119.3 recorded in the third quarter of 2016. When compared to the same quarter in the previous year, the index increased by 2.8 percent.

#### Chapter 52: Cotton

During the fourth quarter of 2016 the export price index for "Cotton" increased by 9.5 percent to 131.8 compared to 120.4 XPI recorded in the third quarter of 2016. Was mainly due to the increase of prices of cotton in the world market on account of strong global demand. When compared to the same quarter last year, the index went up by 12.5 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 43.0 percent of the total of weight exported commodities declined by 8.3 percent from 109.5 in third quarter of 2016 to 100.4 recorded in the fourth quarter of 2016. The decrease was mainly due to a fall in price of gold in the world market.

#### **Import Price Index**

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

The MPI covers 12 chapters out of 99 chapters, namely; (i) Cereals, (ii) Animal fats & oil & their cleavage product, (iii) Mineral fuels, oils & product of their distillation, (iv) Pharmaceutical products, (v) Fertilizers, (vi) Plastics and articles thereof, (vii) Rubber and articles thereof, (viii) Iron and steel, (ix) Articles of iron and steel, (x) Nuclear reactors, boilers, machinery and machinery appliance, parts, (xi) Electrical machinery equipments parts thereof; sound recorder etc, and (xii) Vehicles other than railway/transport way rool-stock, parts and accessories. The sampled twelve chapters constitute 80 percent of total value of imports aggregated from 2006 to 2010.

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

The overall import price index for the fourth quarter of 2016 was 116.5 same level as recorded in the preceding quarter. However, when compared to the same quarter of 2015 the index increased by 0.1 percent from 116.4 to 116.5 registered in the corresponding quarter of 2015 (**Table 2**).

			2015	2016					
Chapt er	Commodity Description	Weight	Q4	Q1	Q2	Q3	Q4	% change on previou s Quarter	% change in the same Quarter last year
10	Cereals	2.7	99.3	106.0	105.2	105.0	102.5	-2.4	3.2
15	Animal fats & oil & their cleavage product	2.1	122.5	128.8	140.3	150.6	149.6	-0.7	22.1
27	Mineral fuels, oils & product of their distillation	24.2	72.8	51.9	60.8	67.3	68.0	1.0	-6.6
30	Pharmaceutical products	2.2	122.9	116.2	118.1	109.9	108.7	-1.1	-11.6
31	Fertilizers	1.3	116.6	108.3	106.1	100.2	102.9	2.7	-11.7
39	Plastics and articles thereof	3.9	109.7	109.0	107.8	106.7	106.0	-0.7	-3.4
40	Rubber and articles thereof	1.9	110.7	112.7	112.4	111.9	110.4	-1.3	-0.3
72	Iron and steel	4.4	104.9	105.2	105.9	105.4	105.6	0.2	0.7
73	Articles of iron and steel	1.2	126.4	124.3	125.2	125.0	124.7	-0.2	-1.3
84	Nuclear reactors, boilers, machinery & mechanical appliance; parts	20.6	134.8	136.3	137.9	133.2	136.8	2.7	1.5
85	Electrical machinery equipment parts thereof; sound recorder etc	11.1	137.7	141.4	142.5	140.9	140.8	-0.1	2.3
87	Vehicles o/t railw/tranw rool-stock, pts & accessories	20.3	138.3	138.2	142.6	141.9	141.7	-0.1	2.5
	Overall	100	116.4	114.9	117.1	116.5	116.5	0.0	0.1

 Table 2: Quarterly Import Price Indices by Chapter (base year Q1 2013 = 100)

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**

During the fourth quarter of 2016, the import price index for "Cereals" decreased by 2.4 percent to 102.5. This was mainly due to a fall in price of wheat in the world market following increased global wheat production which is expected to reach a new record of 753 million metric tons in 2016/17 crop season supported by favourable weather condition. However, when compared to the same quarter in the preceding year the index increased by 3.2 percent.

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

This chapter contributes 2.1 percent of the total weight of the imported commodities and recorded 149.6 in the fourth quarter of 2016, representing a slight decline of 0.7 percent

from 105.0 recorded in the third quarter of 2016. However, when compared to the same quarter in the previous year the index increased by 22.1 percent.

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

During the fourth quarter of 2016, import price index for "Mineral fuels, oils and product of their distillation" which contributes 24.2 percent to the total weight of the imported commodities increased by 1.0 percent to 68.0 from 67.3 recorded in the third quarter of 2016. The increase was due to rise in prices of petroleum products in the world market. However, when compared to the corresponding quarter in 2015, the index decreased by 6.6 percent.

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

The index for "Pharmaceutical products" which represent about 2 percent of the total weight decreased by 1.1 percent from 109.9 in the third quarter of 2016 to 108.7 recorded in the fourth quarter of 2016 mainly due to a decline in the prices of pharmaceutical products. Likewise, when compared to similar quarter in the previous year, the index decreased by 11.6 percent.

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

The index for "Fertilizers" which accounts for 1.3 percent of the total weight of the imported commodities increased by 2.7 percent to 102.9 during the fourth quarter of 2016 compared to 100.2 recorded in the third quarter of 2016. The increase in the prices of fertilizer was mainly due to high global demand. However, when compared with the same quarter in the preceding year the index decreased by 11.7 percent.

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

This chapter contributes 3.9 percent to the total weight of imported commodities. The index recorded a slight decrease of 0.7 percent to 106.0 in the fourth quarter of 2016. Similarly, when compared to the same quarter in the previous year the index decreased by 3.7 percent.

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

During the fourth quarter of 2016, the index for "Rubber and articles thereof" which contributes 1.9 percent to the total weight of imported commodities, recorded 110.4

which is a decrease of 1.3 percent compared to 111.9 recorded in the third quarter of 2016. Likewise, the index decreased by 0.3 percent when compared to the same quarter in 2015.

#### Chapter 72: Iron and steel

In the fourth quarter of 2016, the index for "Iron and steel" increased by 0.2 percent to 105.6 from 105.4 recorded in the third quarter of 2016. Similarly, when compared with the corresponding quarter of 2015 the index rose slightly by 0.7 percent from 104.9 in 2015 to 105.6 in 2016.

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

During the fourth quarter of 2016, the index for "Articles of iron and steel" slightly decreased by 0.2 percent when compared to the preceding quarter. Likewise, when compared to the corresponding quarter in 2015, the index decreased by 1.3 percent.

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

The index for "Boilers, machinery and machinery appliance" which accounts for 20.6 of total weight of imported commodities increased by 2.7 percent to 136.8 in the fourth quarter of 2016 compared to 133.2 recorded in the third quarter of 2016. Likewise, when compared to the same quarter in 2015, the index increased by 1.5 percent.

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

The index for "Electrical machinery equipment and parts thereof" slightly decreased by 0.1 percent to 140.8 in fourth quarter of 2016 compared with 140.9 recorded in the preceding quarter. However, when compared to the corresponding quarter of the year 2015 the index increased by 2.3 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 20.3 percent of total weight declined by 0.1 percent to 141.7 in the fourth quarter of 2016 compared to 141.9 recorded in the third quarter of 2016. However, when compared to the same quarter in 2015 the index increased by 2.5 percent.

## **Terms of Trade**

The term of trade index is the ratio of export price index to import price index. A rise in this ratio indicates that the terms of trade have moved in favour of Tanzania. During the fourth quarter of 2016, terms of trade index increased by 4.7 percent to 118.4 compared to 113.1 recorded in the preceding quarter. Similarly, when compared to the same quarter in 2015, terms of trade increased by 10.0 percent (**Table 3**).

#### Table 3: Quarterly Terms of Trade (Base year Q1 2013 = 100)

	2014				2015				2016			
Indices	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EXPI	102.3	104.3	105.6	107.8	110.2	118.4	121.3	125.3	127.6	128.8	131.8	137.9
MPI	102.1	103.8	104.4	103.7	103.4	113.2	115.1	116.4	114.9	117.1	116.5	116.5
тот	100.2	100.5	101.1	104.0	106.6	104.6	105.4	107.6	111.1	110.0	113.1	118.4

Note;

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

EXPI = Export Price Indices

MPI = Import Price Indices

ToT = Terms of Trade

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