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## STATISTICAL RELEASE

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## EXPORT AND IMPORT PRICE INDICES (XMPI) FOR SEPTEMBER, 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 March quarter 2013 (January – 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.

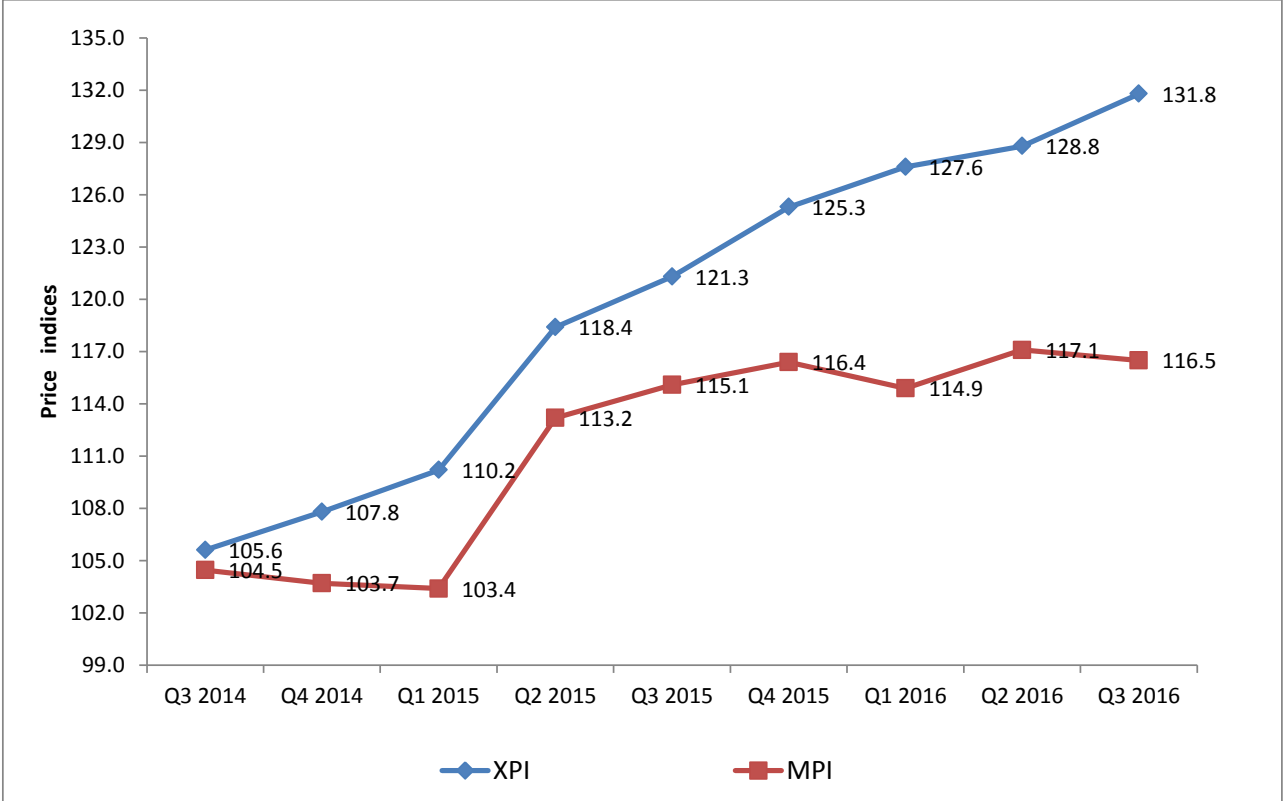
#### Methodology

**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 XMP 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 (XPI)

### Structure of the XPI

The XPI covers 8 chapters out of 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 exports.

### Quarterly Export Price Index

The overall export price index during the third quarter of 2016 increased by 2.4 percent to 131.8 compared to the level recorded in the preceding quarter. The rise was mainly due to an increase in prices of precious stone, fish, edible vegetables and tobacco. When compared to the similar quarter of 2015 the export price index increased by 8.7 percent (**Table1**).

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

Chapter	Description	Weight	2015		2016			% Change on Previous Quarter	% Change the same Quarter last year
			Q3	Q4	Q1	Q2	Q3		
03	Fish & crustacean, mollusc & other aquatic invertebrate	9.5	121.2	122.4	133.6	139.9	145.1	3.7	19.7
07	Edible vegetables and certain roots and tubers	1.8	119.6	139.6	148.7	149.1	153.8	3.2	28.6
08	Edible fruit and nuts; peel of citrus fruit or melons	4.5	119.9	131.1	132.0	131.5	132.0	0.4	10.1
09	Coffee, tea, mate and spices	8.3	126.0	125.4	123.7	115.4	116.2	0.7	-7.8
24	Tobacco and manufactured tobacco substitutes	11.6	146.7	156.9	152.4	154.0	158.4	2.9	8.0
26	Ores, slag and ash	16.7	117.2	116.2	114.8	117.0	119.3	2.0	1.8
52	Cotton	4.6	118.8	117.2	116.9	119.1	120.4	1.1	1.3
71	Natural/cultured pearls, precious stones & metals, coin etc	43.0	101.0	93.3	98.5	104.0	109.5	5.3	8.4
	Overall	100	121.3	125.3	127.6	128.8	131.8	2.4	8.7

*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 third 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 3.7 percent to 145.1. The increase was mainly due to increase in prices of fresh fillet 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 increased by 3.2 percent from 149.1 in the second quarter 2016 to 153.8 in the third quarter 2016. The increase was mainly due to a rise in prices of pigeon peas.

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

The export price index for "Edible fruits and nuts" increased to 132.0 in the third quarter of 2016 representing an increase of 0.4 percent when compared to the preceding quarter. The increase was due to a rise in prices of cashew nut. When compared to the same quarter in the previous year, the index increased by 10.1 percent.

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

This chapter contributed 8.3 percent of the total weight of exported commodities. During the third quarter of 2016, "Coffee, tea, mate and spices" recorded XPI of 116.2, equivalent to 0.7 percent increase compared to XPI of 115.4 recorded during the second quarter of 2016. The increase was due to a rise in prices of coffee and tea which was consistent with world market price movement. When compared to the corresponding quarter in the previous year, the XPI decreased by 7.8 percent.

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

During the third quarter of 2016, index for "Tobacco and manufactured tobacco substitutes" increased by 2.9 percent to 158.4 compared to the level recorded in the second quarter of 2016. The increase was mainly due to rise in world market price of tobacco. When compared to the same quarter in the previous year, the XPI increased by 8.0 percent.

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

The export price index for "Ores, slag and ash" stood at 119.3 in the third quarter of 2016 which is an increase of 2.0 percent compared to XPI of 117.0 recorded in the second quarter of 2016. The increase was contributed by rise of prices of gold ores. When compared to the same quarter in the previous year, the index increased by 1.8 percent.

## **Chapter 52: Cotton**

During the third quarter 2016 the export price index for "Cotton" increased by 1.1 percent to 120.4 compared to 119.1 XPI recorded in the second quarter of 2016. The increase was mainly due to the increase of prices of cotton products. However, when compared to the same quarter last year, the index declined by 1.3 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 weight exported commodities increased by 5.3 percent from 104.0 in second quarter of 2016 to 109.5 recorded in the second quarter of 2016. The increase was mainly due to a rise in gold prices in the world market.

## **Import Price Index (MPI)**

### **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 imports for the years 2006 - 2010.

### **Quarterly Import Price Index**

The overall import price index for the third quarter of 2016 was 116.5 which was a slight decrease of 0.5 percent compared to the second quarter of 2016. The development was due to decrease in prices of pharmaceutical products (6.9%), fertilizer (5.6%) and

machinery and mechanical appliance (3.4%). However, when compared to the same quarter of 2015 the index increased by 1.2 percent (**Table 2**).

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

Chapter	Commodity Description	Weight	2015		2016			% change on Previous Quarter	% change in the same Quarter last year
			Q3	Q4	Q1	Q2	Q3		
10	Cereals	2.7	98.8	99.3	106.0	105.2	105.0	-0.2	6.3
15	Animal fats & oil & their cleavage product	2.1	123.0	122.5	128.8	140.3	150.6	7.3	22.4
27	Mineral fuels, oils & product of their distillation	24.2	77.9	72.8	51.9	60.8	67.3	10.7	-13.6
30	Pharmaceutical products	2.2	119.3	122.9	116.2	118.1	109.9	-6.9	-7.9
31	Fertilizers	1.3	111.6	116.6	108.3	106.1	100.2	-5.6	-10.2
39	Plastics and articles thereof	3.9	108.9	109.7	109.0	107.8	106.7	-1.0	-2.0
40	Rubber and articles thereof	1.9	107.3	110.7	112.7	112.4	111.9	-0.4	4.3
72	Iron and steel	4.4	109.6	104.9	105.2	105.9	105.4	-0.5	-3.8
73	Articles of iron and steel	1.2	122.9	126.4	124.3	125.2	125.0	-0.2	1.7
84	Nuclear reactors, boilers, machinery & mechanical appliance; parts	20.6	132.3	134.8	136.3	137.9	133.2	-3.4	0.7
85	Electrical machinery equipment parts thereof; sound recorder etc	11.1	134.6	137.7	141.4	142.5	140.9	-1.1	4.7
87	Vehicles o/t railw/tranw rool-stock, pts & accessories	20.3	134.8	138.3	138.2	142.6	141.9	-0.5	5.3
	<b>Overall</b>	<b>100</b>	<b>115.1</b>	<b>116.4</b>	<b>114.9</b>	<b>117.1</b>	<b>116.5</b>	<b>-0.5</b>	<b>1.2</b>

*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

The import price index for "Cereals" decreased marginally during the third quarter of 2016. The slightly decline was due to a fall in wheat price due to improved production prospects in major wheat growing areas such as Russia and Canada. However, when compared to the same quarter in the preceding year the index increased by 6.3 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 150.6 in the third quarter of 2016 which was an increase of 7.3 percent from 140.3 recorded in the second quarter of 2016. This was largely attributed to the rise in prices of crude palm oil partly due to decline in supply on account of drought in India and Malaysia coupled with low stocks in both exporting and importing countries. Likewise, when compared to the same quarter in the previous year the index increased by 22.4 percent.

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

During the third quarter of 2016, import price index for "Mineral fuels, oils and product of their distillation" which contributes 24.2 percent of the total weight of the imported commodities increased by 10.7 percent to 67.3 from 60.8 recorded in the second quarter of 2016. The increase was due to rise in prices of mineral fuels in the world market. However, when compared to the corresponding quarter in 2015, the index decreased by 13.6 percent.

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

The index for "Pharmaceutical products" which represent about 2 percent of the total weight decreased by 6.9 percent from 118.1 in the second quarter of 2016 to 109.9 recorded in the third quarter of 2016 mainly due to a decline in the prices of pharmaceutical products. Similarly, when compared to same quarter in the previous year, the index decreased by 7.9 percent.

### **Chapter 31: Fertilizers**

The index for "Fertilizers" which accounts for 1.3 percent of the total weight of the imported commodities decreased by 5.6 percent to 100.2 during the third quarter of 2016 compared to 106.1 recorded in the second quarter of 2016. The decline in the prices of fertilizer was mainly due to excess supply, high stocks, and weak global demand. Likewise, when compared with the same quarter in the preceding year the index decreased by 10.2 percent.

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

This chapter contributes 3.9 percent to the total weight of imported commodities. The index recorded a decrease of 1.0 percent to 106.7 in the third quarter of 2016. Similarly, when compared to the same quarter in the previous year the index decreased by 2.0 percent.

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

During the third quarter of 2016, the index for "Rubber and articles thereof" which contributes 1.9 percent to the total weight of imported commodities, recorded 111.9 which is slight decreased by 0.4 percent compared to 112.4 recorded in the second

quarter of 2016. However, the index increased by 4.3 percent when compared to the same quarter in 2015.

### **Chapter 72: Iron and steel**

In the third quarter of 2016, the index for "Iron and steel" stood at 105.4 which represent a slight decrease of 0.5 percent compared to 105.9 recorded in the second quarter of 2016. Similarly, the index decreased by 3.8 percent compared to the same quarter in 2015. The decrease was due to a fall in prices of steel coated sheets.

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

During the third quarter of 2016 the index for "Articles of iron and steel" slightly decreased by 0.2 percent when compared to the preceding quarter. However, when compared to the corresponding quarter in 2015, the index rose by 1.7 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 declined by 3.4 percent to 133.2 in the third quarter 2016 compared to 137.9 recorded in the second quarter of 2016. However, when compared to the same quarter in 2015, the index increased by 0.7 percent.

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

The index for "Electrical machinery equipment and parts thereof" decreased by 1.1 percent to 140.9 in third quarter of 2016 compared with 142.5 recorded in the preceding quarter. However, when compared to the corresponding quarter of the year 2015 the index increased by 4.7 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 0.5 percent to 141.9 in the third quarter of 2016 compared to 142.6 recorded in the second quarter of 2016. However, when compared to the same quarter in 2015 the index increased by 5.3 percent.



### Terms of Trade (base year Q1 2013= 100)

The terms 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 third quarter of 2016, terms of trade index increased by 2.8 percent to 113.1 compared to 110.0 recorded in the preceding quarter. Similarly, when compared to the same quarter in 2015, terms of trade increased by 7.3 percent (Table 3).

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

Indices			2014				2015				2016		
	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3
EXPI	100.5	100.8	102.3	104.3	105.6	107.8	110.2	118.4	121.3	125.3	127.6	128.8	131.8
MPI	100.2	100.8	102.1	103.8	104.4	103.7	103.4	113.2	115.1	116.4	114.9	117.1	116.5
TOT	100.3	100.0	100.2	100.5	101.1	104.0	106.6	104.6	105.4	107.6	111.1	110.0	113.1

#### 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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