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### EXPORT AND IMPORT PRICE INDICES (XMPI) FOR DECEMBER, 2015

#### 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).

#### 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.

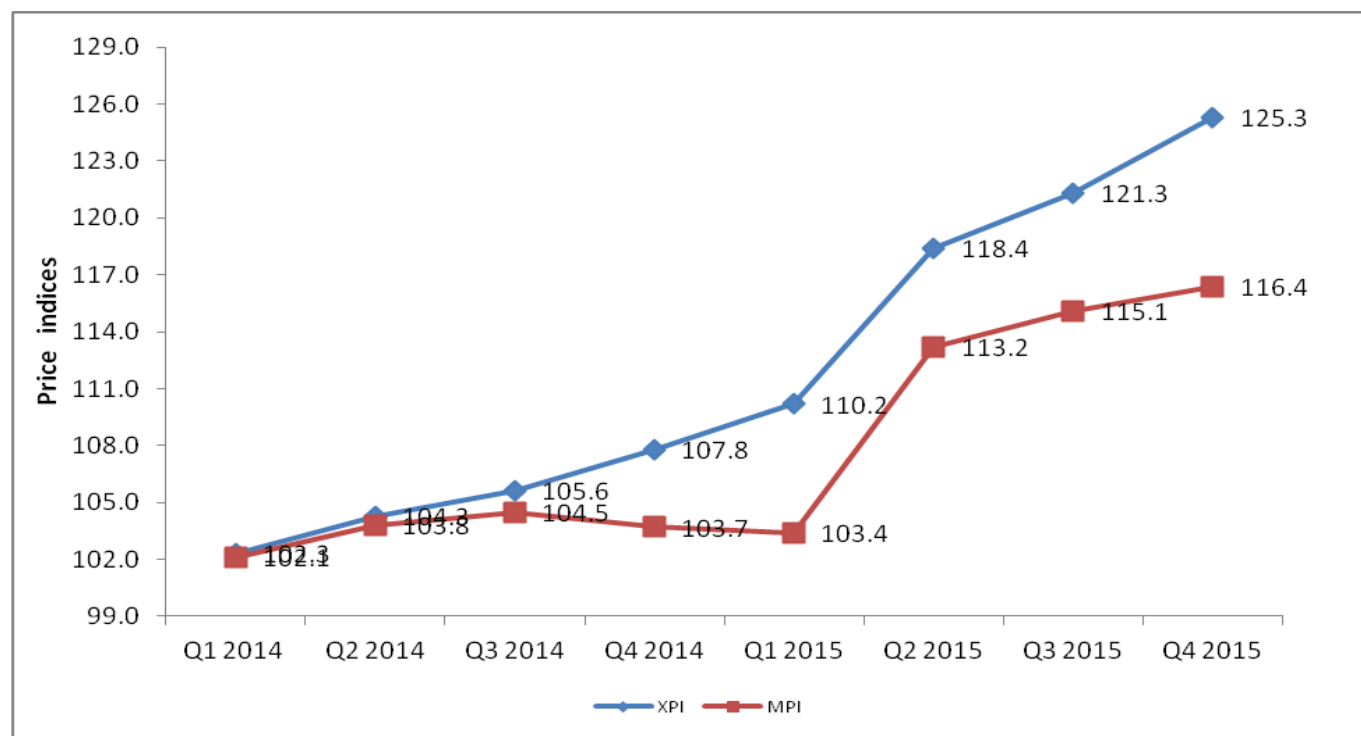
#### Methodology

**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 out of 99 chapters while 14 chapters were selected for exports out of 99 chapters representing 80 percent or more direct coverage depending on the degree of concentration. 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: Quarterly Export and Import price indices (Q1 2013=100).**



Q1=First quarter, Q2=Second quarter, Q3=Third quarter, Q4=Fourth quarter

## 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 fourth quarter of 2015 increased by 4.0 percent to 125.3 compared to the level recorded in the preceding quarter. The rise was mainly due to an increase in prices of fish and crustacean, edible fruits and tobacco. When compared to the same quarter of 2014 the export price index increased by 17.4 percent (**Table1**).

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

Chapter	Description	Weight	2014	2015				% Change on Previous Quarter	% Change the same Quarter last year
			Q4	Q1	Q2	Q3	Q4		
03	Fish & crustacean, mollusc & other aquatic invertebrate	9.5	114.1	114.0	120.8	121.2	122.4	1.2	8.3
07	Edible vegetables and certain roots and tubers	1.8	106.3	102.8	113.3	119.6	139.6	20.0	33.3
08	Edible fruit and nuts; peel of citrus fruit or melons	4.5	103.0	106.1	112.2	119.9	131.1	11.2	28.1
09	Coffee, tea, mate and spices	8.3	107.0	109.0	117.8	126.0	125.4	-0.6	18.4
24	Tobacco and manufactured tobacco substitutes	11.6	123.7	132.6	139.7	146.7	156.9	10.2	33.2
26	Ores, slag and ash	16.7	103.0	105.0	116.4	117.2	116.2	-1.0	13.2
52	Cotton	4.6	107.6	110.0	126.8	118.8	117.2	-1.6	9.6
71	Natural/cultured pearls, prec stones & metals, coin etc	43.0	97.9	102.4	100.1	101.0	93.3	-7.7	-4.6
	<b>Overall</b>	<b>100</b>	<b>107.8</b>	<b>110.2</b>	<b>118.4</b>	<b>121.3</b>	<b>125.3</b>	<b>4.0</b>	<b>17.4</b>

*Q1=First quarter, Q2=Second quarter, Q3=Third quarter, Q4=Fourth quarter*

## 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 2015, the sub-index for “Fish and crustacean, mollusk and other aquatic invertebrate” which account for 9.5 percent of the total weight increased from 121.2 recorded in third quarter to 122.4 representing an increase of 1.2 percent. The rise was mainly due to increase in prices of dried sardine, 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 20% from 119.6 in the third quarter 2015 to 139.6 in the fourth quarter 2015. Higher export price index was mainly due to increase in prices of pigeon peas.

### Chapter 08: Edible fruits or melons

The export price index for “Edible fruits or melons” which stood at 119.9 in the third quarter of 2015 increased to 131.1 in the fourth quarter representing an increase of 11.2%. When compared to the same quarter in the previous year, the index increased by 28.1%. The rise was due to increase in prices of dried raw cashew nuts and cashew nut kernel.

### **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 2015, “Coffee, tea, mate and spices” recorded an average XPI of 125.4, equivalent to a decrease of 0.6% compared to XPI of 126.0 recorded during the third quarter. The decline was due to a fall in prices of tea and coffee. However, when compared to the corresponding quarter in the previous year, the XPI increased by 28.1 percent.

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

During the fourth quarter of 2015, sub-index for “Tobacco and manufactured tobacco substitutes” increased by 10.2 percent to 156.9 compared to the level recorded in the third quarter. Similarly when compared to the same quarter in the previous year, the XPI increased by 3.2 percent. The increase was mainly due to a rise in tobacco prices.

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

The export price index for “Ores, slag and ash” stood at 116.2 in the fourth quarter of 2015 which is a decline of 1 percent compared to XPI of 117.2 recorded in the third quarter. The decline was contributed by a slight fall in export prices of gold ore and copper concentrates products. When compared to the same quarter in the previous year, the index increased by 13.2 percent.

### **Chapter 52: Cotton**

During the fourth quarter 2015 the export price index of cotton decreased by 1.6 percent recording the XPI of 117.2 compared to XPI of 118.8 registered in the third quarter. The decline was attributed to the decrease in the export prices of ginned cotton products.

### **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 decreased by 7.7 percent from 101.0 in third quarter of 2015 to 93.3 in the fourth quarter of 2015. The decline was mainly due to a fall 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 road-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 fourth quarter of 2015 was 116.4 which was an increase of 1.3 percent compared to the previous quarter of 2015. The change was due to increase of the prices of fertilizers (5%), pharmaceutical products (3.6%), articles of iron and steel (3.5%), vehicles (3.5%), rubber (3.4%), electrical machinery equipments (3.1%) and machinery and mechanical appliances (2.5%) . When compared to the same quarter previous year 2014 the index increased by 12.6 percent (**Table 2**).

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

Chapter	Commodity Description	Weight	2014		2015			% change on Previous Quarters	% change in the same Quarter last year
			Q4	Q2	Q3	Q3	Q4		
10	Cereals	2.7	92.1	93.4	104.5	98.8	99.3	0.5	7.2
15	Animal fats & oil & their cleavage product	2.1	101.9	102.2	122.3	123.0	122.5	-0.5	20.6
27	Mineral fuels, oils & product of their distillation	24.2	93.0	72.9	80.2	77.9	72.8	-5.1	-20.2
30	Pharmaceutical products	2.2	107.9	110.2	112.2	119.3	122.9	3.6	15.0
31	Fertilizers	1.3	104.4	104.2	116.6	111.6	116.6	5.0	12.2
39	Plastics and articles thereof	3.9	106.9	104.3	106.3	108.9	109.7	0.8	2.8
40	Rubber and articles thereof	1.9	99.7	103.2	108.6	107.3	110.7	3.4	11.0
72	Iron and steel	4.4	106.1	108.7	114.0	109.6	104.9	-4.7	-1.2
73	Articles of iron and steel	1.2	109.6	112.4	121.8	122.9	126.4	3.5	16.8
84	Nuclear reactors, boilers, machinery & mechanical appliance; parts	20.6	108.9	110.6	123.1	132.3	134.8	2.5	25.9
85	Electrical machinery equipment parts thereof; sound recorder etc	11.1	104.6	111.6	123.0	134.6	137.7	3.1	33.1
87	Vehicles o/t railw/transport way road-stock, pts & accessories	20.3	109.8	106.5	125.9	134.8	138.3	3.5	28.5
	<b>Overall</b>	<b>100</b>	<b>103.7</b>	<b>103.4</b>	<b>113.2</b>	<b>115.1</b>	<b>116.4</b>	<b>1.3</b>	<b>12.6</b>

Q1=First quarter, Q2=Second quarter, Q3=Third quarter, Q4=Fourth quarter

## **Sub indices by Chapter**

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

### **Chapter 10: Cereals**

The import price index for “Cereals” during the fourth quarter of 2015 was 99.3 which is an increase of 0.5 percent from 98.8 recorded during third quarter of 2015. Similarly when compared to the same quarter in the preceding year the index increased by 7.2 percent. The increase was attributed to the rise in prices of cereals.

### **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 122.5 in the fourth quarter of 2015 a slight decrease of 0.5 percent to 123.0 recorded in third quarter of 2015. However, when compared to the same quarter in the previous quarter the index increased by 20.6 percent.

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

During the fourth quarter of 2015, 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 declined by 5.1 percent to 72.8 from 77.9 recorded in the preceding quarter. Similarly when compared to the corresponding quarter in 2014, the index decreased by 20.2 percent. The decrease was attributed to fall in prices these commodities in the world market.

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

The sub-index for “Pharmaceutical products” which represent about 2 percent of the total weight rose by 3.6 percent from 119.3 in the third quarter of 2015 to 122.9 recorded in the fourth quarter of 2015. When compared to same quarter in the previous year, the index rose by 15.0 percent. The increase was mainly due to increase in prices of pharmaceutical products.

### **Chapter 31: Fertilizers**

The index for “Fertilizers” which accounts for 1.3 percent of the total weight of the imported commodities recorded 116.6 during the fourth quarter of 2015, which is an increase of 5 percent compared to 111.6 recorded in the third quarter of 2015. Compared with the same quarter in the preceding year the index increased by 12.2 percent. The rise was mainly due to increase in prices of fertilizers.

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

This chapter contributes 3.9 percent of the total weight of imported commodities. The index recorded a slight increase of 0.8 percent reaching 109.7 in the fourth quarter of 2015. Similarly when compared to the same quarter in the previous year the index increased by 2.8 percent. The increase was due to a slight increase in prices of plastics and articles thereof.

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

During the fourth quarter of 2015, the index for “Rubber and articles thereof” which contributes 1.9 percent of the total weight of imported commodities, recorded 104.9 which is an increase of 3.4% compared to 107.3 recorded in the third quarter of 2015. Similarly the index increased by 11.0 percent when compared to the same quarter in 2014. The increase was due to a rise in import prices of vehicles and trucks.

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

In the fourth quarter of 2015, the index for “Iron and steel” stood at 104.9 which represent a decline of 4.7 percent compared to 109.6 recorded in the preceding quarter. Similarly the index decreased by 1.2 percent compared to the same quarter in 2014. The decline was due to decrease in prices particularly in prime quality hot rolled steel sheet in coils and tin free steel sheets.

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

During the fourth quarter of 2015 the index for “Articles of iron and steel” recorded an increase of 3.5 percent to 126.4 compared to 122.9 recorded in the preceding quarter. When compared to the corresponding quarter in 2014, the index rose by 16.8 percent. The increase was mainly due to rise in prices of iron and steel commodities.

### **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 rose by 2.5 percent from 132.3 of the third quarter 2015 to 134.8 in the fourth quarter 2015. Compared to the same quarter in 2014, the index increased by 25.9 percent. The increase was mainly due to a rise in overall prices of machinery and mechanical appliances.

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

Sub-index for “Electrical machinery equipment and parts thereof” registered an increase of 3.1 percent to 137.7 in the fourth quarter 2015 from 134.6 recorded in the preceding quarter. When compared to the corresponding quarter of the year 2014 the index increased by 33.1 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 increased by 3.5 percent to 138.3 in the fourth quarter of 2015 from 134.8 recorded in the third quarter of 2015. When compared to the same quarter in 2014 the index increased by 28.5 percent. The increase was mainly caused by the rise in import prices of vehicles.

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

The terms of trade index is the ratio of export price index to import price index. During the fourth quarter of 2015, terms of trade index increased by 2.2 percent to 107.6 compared to the preceding quarter. When compared to the same quarter in 2014, terms of trade increased by 3.6 percent (Table 3).

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

Indices	2013				2014				2015			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
EXPI	100.0	100.5	100.5	100.8	102.3	104.3	105.6	107.8	110.2	118.4	121.3	125.3
MPI	100.0	100.5	100.2	100.8	102.1	103.8	104.4	103.7	103.4	113.2	115.1	116.4
TOT	100.0	100.0	100.3	100.0	100.2	100.5	101.1	104.0	106.6	104.6	105.4	107.6

#### Note;

Q1=First quarter, Q2=Second quarter, Q3=Third quarter, Q4=Fourth quarter

EXPI = Export Price Indices

MPI = Import Price Indices

TOT = Terms of Trade

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