



# PRODUCER PRICE INDEX FOR MANUFACTURING SECTOR (PPI-M) FOURTH QUARTER 2013

## **Background**

This is the thirty six publication of monthly Producer Price Index for the Manufacturing sector (PPI-M). Work on the development of the methodology for the construction of the PPI-M started in March 2003 with technical assistance from the IMF East AFRITAC and financial assistance from the UK DFID. The PPI project is a joint project between the National Institute of Statistics of Rwanda (NISR) and the National Bank of Rwanda (NBR).

Table 1: Monthly Producer Price Indices by activity group: **Fourth Quarter 2013 Goods for local sales** (*Base Period: Fourth Quarter 2003 = 100*)

Activity group	Weigh		2012			2013	2012	2013	
		Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	4 <sup>th</sup> qtr	4 <sup>th</sup> qtr
PPI for Mainly Local Sold products	1000	179.25	179.26	179.25	183.40	183.08	183.35	179.25	183.28
% change, previous month/quarter (*)		0.53	0.01	-0.01	0.47	-0.17	0.15	0.54	0.45
% change, 12 months		2.77	2.78	2.78	2.32	2.13	2.29	2.78	2.24
Food Products, Beverages and									
Tobacco	456	184.76	184.77	184.74	189.66	188.96	189.55	184.76	189.39
% change, previous month/quarter (*)		0.00	0.00	-0.01	0.06	-0.37	0.31	-0.01	0.00
% change, 12 months		3.31	3.31	3.29	2.65	2.27	2.60	3.30	2.51
Food Products	129	190.50	190.51	190.53	192.89	190.44	192.49	190.51	191.94
% change, previous month/quarter (*)		-0.02	0.01	0.01	0.21	-1.27	1.08	0.00	0.00
% change, 12 months		0.01	0.02	0.03	1.26	-0.04	1.03	0.02	0.75
70 Change, 12 months		0.01	0.02	0.03	1.20	-0.04	1.03	0.02	0.70
Production, processing and preserving									
of meat and meat products	3	221.17	221.17	221.17	221.17	221.17	221.17	221.17	221.17
Processing and preserving of fruits	3	221.17	221.17	221.17	221.17	221.17	221.17	221.17	221.17
and vegetables	8	219.83	219.83	219.83	219.83	219.83	219.83	219.83	219.83
Manufacture of dairy products	32	204.93	204.93		200.44	200.44	200.44	204.93	200.44
Manufacture of grain mill and animal	32	204.00	204.00	204.33	200.44	200.44	200.44	204.33	200.44
feeds products	27	177.14	177.14	177.14	177.13	177.13	177.13	177.14	177.13
Manufacture of bakery products,		177.17	177.17	177.14	177.10	177.10	177.10	177.14	177.10
pastry, biscuits	13	203.41	203.41	203.41	206.07	206.07	206.07	203.41	206.07
Manufacture of sugar	45	188.45	183.19		161.85	160.54	160.13	186.92	160.84
Beverages and Tobacco	327	182.49	182.49		188.38	188.38	188.38	182.47	188.38
% change, previous month/quarter (*)	<u></u>	0.00	0.00	-0.02	0.00	0.00	0.00	-0.01	0.00
% change, 12 months		4.73	4.73	4.71	3.23	3.23	3.25	4.73	3.23
Manufacture of beer, soft drinks and					0.20		<u> </u>		0.20
tobacco	327	182.49	182.49	182.45	188.38	188.38	188.38	182.47	188.38
Other than Food, Beverages and							100100		
					470.00	176.67	176.68		176.65
	544	174.62	174.65	174.65	1/6.60			174.641	170.00
Tobacco	544	174.62 1.01	174.65		176.60 -0.05			174.64	
Tobacco % change, previous month/quarter (*)	544	1.01	0.02	0.00	-0.05	0.04	0.01	1.03	0.00
Tobacco	544								
Tobacco % change, previous month/quarter (*) % change, 12 months	544	1.01	0.02	0.00	-0.05	0.04	0.01	1.03	0.00
Tobacco % change, previous month/quarter (*) % change, 12 months  Manufacture of textiles, wearing		1.01 2.30	0.02 2.32	0.00 2.32	-0.05 1.14	0.04 1.16	0.01 1.17	1.03 2.31	0.00 1.15
Tobacco % change, previous month/quarter (*) % change, 12 months  Manufacture of textiles, wearing apparel, tanning and dressing of leather		1.01	0.02	0.00	-0.05	0.04	0.01	1.03	0.00
Tobacco % change, previous month/quarter (*) % change, 12 months  Manufacture of textiles, wearing apparel, tanning and dressing of leather Manufacture of paper and paper		1.01 2.30	0.02 2.32	0.00 2.32	-0.05 1.14	0.04 1.16	0.01 1.17	1.03 2.31	0.00 1.15
Tobacco % change, previous month/quarter (*) % change, 12 months  Manufacture of textiles, wearing apparel, tanning and dressing of leather Manufacture of paper and paper products, publishing of books,	47	1.01 2.30 182.58	0.02 2.32 182.58	0.00 2.32 182.58	-0.05 1.14 182.58	0.04 1.16 182.58	0.01 1.17 182.58	1.03 2.31 182.58	0.00 1.15 182.58
Tobacco % change, previous month/quarter (*) % change, 12 months  Manufacture of textiles, wearing apparel, tanning and dressing of leather Manufacture of paper and paper products, publishing of books, newspapers	47	1.01 2.30 182.58	0.02 2.32 182.58	0.00 2.32 182.58	-0.05 1.14 182.58 147.13	0.04 1.16 182.58	0.01 1.17 182.58	1.03 2.31 182.58	0.00 1.15 182.58
Tobacco % change, previous month/quarter (*) % change, 12 months  Manufacture of textiles, wearing apparel, tanning and dressing of leather Manufacture of paper and paper products, publishing of books, newspapers Manufacture of chemical products	47	1.01 2.30 182.58	0.02 2.32 182.58	0.00 2.32 182.58	-0.05 1.14 182.58	0.04 1.16 182.58	0.01 1.17 182.58	1.03 2.31 182.58	0.00 1.15 182.58
Tobacco % change, previous month/quarter (*) % change, 12 months  Manufacture of textiles, wearing apparel, tanning and dressing of leather Manufacture of paper and paper products, publishing of books, newspapers  Manufacture of chemical products Manufacture of plastic products,	47	1.01 2.30 182.58	0.02 2.32 182.58	0.00 2.32 182.58	-0.05 1.14 182.58 147.13	0.04 1.16 182.58	0.01 1.17 182.58	1.03 2.31 182.58	0.00 1.15 182.58
Tobacco % change, previous month/quarter (*) % change, 12 months  Manufacture of textiles, wearing apparel, tanning and dressing of leather Manufacture of paper and paper products, publishing of books, newspapers  Manufacture of chemical products Manufacture of plastic products, tubes, retreading and rebuilding of	47	1.01 2.30 182.58 147.13 169.92	0.02 2.32 182.58 147.13 170.01	0.00 2.32 182.58 147.13 170.01	-0.05 1.14 182.58 147.13 167.68	0.04 1.16 182.58 147.13 167.68	0.01 1.17 182.58 147.13 167.68	1.03 2.31 182.58 147.13 169.98	0.00 1.15 182.58 147.13 167.68
Tobacco % change, previous month/quarter (*) % change, 12 months  Manufacture of textiles, wearing apparel, tanning and dressing of leather Manufacture of paper and paper products, publishing of books, newspapers  Manufacture of chemical products Manufacture of plastic products,	47 40 172	1.01 2.30 182.58	0.02 2.32 182.58	0.00 2.32 182.58 147.13 170.01	-0.05 1.14 182.58 147.13	0.04 1.16 182.58	0.01 1.17 182.58	1.03 2.31 182.58	0.00 1.15 182.58
Tobacco % change, previous month/quarter (*) % change, 12 months  Manufacture of textiles, wearing apparel, tanning and dressing of leather Manufacture of paper and paper products, publishing of books, newspapers  Manufacture of chemical products Manufacture of plastic products, tubes, retreading and rebuilding of rubber tyres	47 40 172	1.01 2.30 182.58 147.13 169.92	0.02 2.32 182.58 147.13 170.01	0.00 2.32 182.58 147.13 170.01	-0.05 1.14 182.58 147.13 167.68	0.04 1.16 182.58 147.13 167.68	0.01 1.17 182.58 147.13 167.68	1.03 2.31 182.58 147.13 169.98	0.00 1.15 182.58 147.13 167.68
Tobacco % change, previous month/quarter (*) % change, 12 months  Manufacture of textiles, wearing apparel, tanning and dressing of leather Manufacture of paper and paper products, publishing of books, newspapers  Manufacture of chemical products Manufacture of plastic products, tubes, retreading and rebuilding of rubber tyres  Manufacture of ceramic products,	47 40 172 45	1.01 2.30 182.58 147.13 169.92	0.02 2.32 182.58 147.13 170.01	0.00 2.32 182.58 147.13 170.01	-0.05 1.14 182.58 147.13 167.68	0.04 1.16 182.58 147.13 167.68	0.01 1.17 182.58 147.13 167.68	1.03 2.31 182.58 147.13 169.98	0.00 1.15 182.58 147.13 167.68 158.54
**Tobacco %* change, previous month/quarter** %* change, 12 months  Manufacture of textiles, wearing apparel, tanning and dressing of leather Manufacture of paper and paper products, publishing of books, newspapers  Manufacture of chemical products Manufacture of plastic products, tubes, retreading and rebuilding of rubber tyres  Manufacture of ceramic products, cement, lime and articles of concrete	47 40 172	1.01 2.30 182.58 147.13 169.92	0.02 2.32 182.58 147.13 170.01	0.00 2.32 182.58 147.13 170.01	-0.05 1.14 182.58 147.13 167.68	0.04 1.16 182.58 147.13 167.68	0.01 1.17 182.58 147.13 167.68	1.03 2.31 182.58 147.13 169.98	0.00 1.15 182.58 147.13 167.68 158.5
Tobacco % change, previous month/quarter (*) % change, 12 months  Manufacture of textiles, wearing apparel, tanning and dressing of leather Manufacture of paper and paper products, publishing of books, newspapers  Manufacture of chemical products Manufacture of plastic products, tubes, retreading and rebuilding of rubber tyres  Manufacture of ceramic products,	47 40 172 45	1.01 2.30 182.58 147.13 169.92	0.02 2.32 182.58 147.13 170.01	0.00 2.32 182.58 147.13 170.01 135.74	-0.05 1.14 182.58 147.13 167.68	0.04 1.16 182.58 147.13 167.68	0.01 1.17 182.58 147.13 167.68	1.03 2.31 182.58 147.13 169.98	0.00 1.15 182.58 147.13 167.68

Source: Quarterly Producer Price Index Surveys

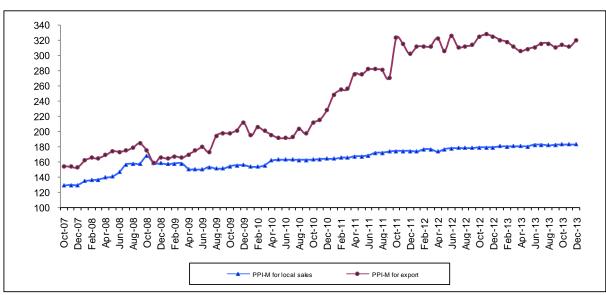
Table 2: Monthly Producer Price Indices by activity group: **Fourth Quarter 2013 Goods for export** (*Base Period: Fourth Quarter 2003 = 100*)

Activity Group	Weight		2012		2013			2012	2013
		Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	4 <sup>th</sup> qtr	4 <sup>th</sup> qtr
PPI for Mainly Export Products	1000	324.19	327.60	325.04	313.53	311.43	319.40	325.61	314.79
% change, previous month/quarter(*)		3.31	1.05	-0.78	0.85	-0.67	2.56	4.30	0.25
% change, 12 months		0.36	3.87	7.71	-3.29	-4.94	-1.73	28.77	-3.32
Manufacture of other food products									
n.e.c	978	319.74	323.16	320.78	308.93	306.85	315.08	321.23	310.29
% change, previous month/quarter(*)		3.40	1.07	-0.74	0.84	-0.67	2.68	4.41	0.26
% change, 12 months		0.24	3.85	7.92	-3.38	-5.05	-1.78	28.92	-3.41
Production of tea	585	203.81	208.62	209.84	178.26	174.79	188.53	207.42	180.52
% change, previous month/quarter(*)		9.84	2.36	0.59	-1.41	-1.95	7.86	12.11	-2.96
% change, 12 months		21.49	26.80	28.17	-12.54	-16.22	-10.16	15.85	-12.97
Production of coffee	392	492.65	493.99	486.23	503.81	503.81	503.81	490.96	503.81
% change, previous month/quarter(*)		-0.21	0.27	-1.57	2.07	0.00	0.00	0.07	2.07
% change, 12 months		-9.53	-6.77	-2.04	2.27	1.99	3.61	38.78	2.62
Manufacture of pesticides and other									
agro-chemical products	22	520.15	523.09	512.69	516.29	512.94	509.94	518.64	513.06
% change, previous month/quarter(*)		1.14	0.56	-1.99	1.25	-0.65	-0.58	1.38	0.00
% change, 12 months		3.83	4.42	2.34	-0.74	-1.94	-0.54	24.93	-1.08
Production of pyrethrum	22	520.15	523.09	512.69	516.29	512.94	509.94	518.64	513.06

Source: Quarterly Producer Price Index Surveys

Graph1: PPI for local sales and export products

(*Fourth quarter 2003=100*)



Source: Quarterly Producer Price Index Surveys

I. Monthly PPI-M (Base period: 4st Quarter 2003 = 100)

1.1 PPI-M: Local sales (table 1)

In December 2013, the index for products manufactured for sale on the local market stood at 183.35,

which reflects an increase of 0.15 percent compared to the index of the previous month which was

183.08.

On annual basis, the index for December 2013 was 2.29 percent higher. This increase is mainly

attributable to price increases of 2.60 percent in food, beverages and tobacco products.

The annual index of food, beverages and tobacco increased by 2.60 percent in December 2013. This

increase is mostly attributable to the effect of price changes by 25.47 percent in processing and

preserving of fruits and vegetables, and 3.25 percent price increase in beverages and tobacco.

1.2 PPI-M Exports (table 2)

As shown in the table 2, the index for goods mainly produced for exports stood at 313.53 in October,

311.43 in November and 319.40 in December 2013. Prices fetched for tea exports registered a monthly

decrease of 1.41 and 1.95 percent in October and November respectively, and an increase of 7.86

percent in December.

On an annual basis, the index of export products registered a decrease of 1.73 percent in December

2013 compared to the index of the same month of the previous year.

II. Quarterly PPI-M (Base period: 4<sup>th</sup> Quarter 2003 =100)

2.1 PPI-M Local sales

The index for the fourth quarter 2013 registered an increase of 0.45 percent compared to the index of

the previous quarter (third quarter 2013) and an increase of 2.24 percent compared to the index of the

fourth quarter of the year 2012.

4

## 2.2 PPI-M Exports

The quarterly index for manufacturing exports registered an increase of 0.25 percent in the fourth quarter of the year 2013 compared to the index of the previous quarter(third quarter 2013) and a decrease of 3.32 percent compared to the index of the same quarter of the previous year.

#### **Contact Persons**:

National Institute of Statistics of Rwanda (NISR):

Director General, MURANGWA Yusuf E-mail: yusuf.murangwa@statistics.gov.rw

NISR: Department of Economic Statistics:

Director, MANZI Sébastien

E-mail: sebastien.manzi@statistics.gov.rw

Principal Research Statistician in charge of Prices, SIBOMANA Oscar Tel.: (250) 788 893 288, E-mail: oscar.sibomana@statistics.gov.rw

**NBR**: Department of Statistics

Senior Officer «Economic statistics », KAJIGIJA Eugène Tel: (250) 788 417 427, E-mail: ekajigija@bnr.rw

Web sites: http://www.statistics.gov.rw

http://www.bnr.rw

# **Technical Note on PPI-M**

- **1. Scope and composition:** For the purpose of these indices, manufacturing encompass all products produced for sale on the domestic market as well as for the exports that is divisions 15 to 36. The PPI-M will initially cover manufacturing establishments that operate with 10 or more workers.
- **2. Items and weights:** These indices are fixed weight indices. The weights were obtained from the gross output value reported by manufacturers at the 2000 Census of Industrial Production conducted in 2001. Gross output is valued at basic prices, and thus excludes all taxes on products, namely excise duties and Value added tax. Each selected product is assigned a weight representing its share in the total turnover for the fourth quarter of 2003 as reported by the establishments.
- **3. Price information:** The point of pricing is the establishment. The price is the selling price received by the producer for the selected product as it leaves the factory gate. In general prices are collected at mid-point of each month.
- **4. Reference base period for PPI\_M:** The reference period for the calculation of PPI-M is the fourth quarter 2003. The base price for a particular product is an arithmetic mean of the fourth quarter monthly prices in 2003.
- **5. Index formula:** The PPI is calculated according to the Laspeyres formula, which is the weighted average of price relatives.

$$I_{c} = \sum \frac{w_{i} * \left(P_{ci}/P_{oi}\right)}{\sum w_{i}} * 100$$

Where  $I_c = Index$  for current month

 $W_i$  = Weight associated with product i

P<sub>ci</sub> = Price of product i for the current month

 $P_{oi}$  = Price for product i for the reference period

#### 6. Uses of the PPI

The main uses of the PPI are:

- As a leading indicator of inflationary trends.
- As deflators for national accounting at constant prices.
- As "escalators' to adjust prices of inputs in long term sales contracts.
- **7. Dissemination of PPI-M:** The monthly PPI-M will be published in each quarter, about 8 weeks following the quarter under review.

\*\*\*\*\*\*\*\*\*\*\*\*\*\*