



NATIONAL INSTITUTE OF
STATISTICS OF RWANDA



NATIONAL BANK OF RWANDA

**PRODUCER PRICE INDEX FOR
MANUFACTURING SECTOR (PPI-M)
FOURTH QUARTER 2007**

Background

This is the twelfth issue of the 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 (NSIR) and the National Bank of Rwanda (NBR).

Table 1a: Monthly Producer Price Indices by activity group: Fourth Quarter 2007
Goods Produced mainly for local sales
(Base Period: Fourth Quarter 2003 = 100)

Activity group	Weight	2006			2007		
		Oct.	Nov.	Dec.	Oct.	Nov.	Dec.
PPI for Mainly Local Sold products	1000	123.8	124.0	123.2	129.0	130.0	130.0
<i>% change, previous month</i>		<i>0.9</i>	<i>0.2</i>	<i>-0.7</i>	<i>0.8</i>	<i>0.8</i>	<i>0.0</i>
<i>% change, 12 months</i>		<i>4.9</i>	<i>5.3</i>	<i>4.8</i>	<i>4.2</i>	<i>4.8</i>	<i>5.5</i>
Food Products, Beverages and Tobacco	456	115.7	116.0	115.8	122.8	122.7	123.1
<i>% change, previous month</i>		<i>-1.3</i>	<i>-0.1</i>	<i>0.3</i>	<i>0.2</i>	<i>-0.1</i>	<i>0.4</i>
<i>% change, 12 months</i>		<i>3.8</i>	<i>3.8</i>	<i>4.5</i>	<i>6.1</i>	<i>5.7</i>	<i>6.4</i>
Food Products	129	145.0	146.1	145.1	147.5	147.0	148.6
<i>% change, previous month</i>		<i>-0.2</i>	<i>0.7</i>	<i>-0.7</i>	<i>0.6</i>	<i>-0.3</i>	<i>1.1</i>
<i>% change, 12 months</i>		<i>11.3</i>	<i>12.2</i>	<i>13.5</i>	<i>1.7</i>	<i>0.6</i>	<i>2.4</i>
Production, processing and preserving of meat and meat products	3	149.5	149.5	149.5	170.6	170.6	170.6
Processing and preserving of fruits and vegetables	8	141.1	141.2	144.0	145.4	145.4	145.4
Manufacture of dairy products	32	142.2	142.2	139.1	148.9	149.6	149.6
Manufacture of grain mill and animal feeds products	27	129.8	129.8	129.0	152.8	153.1	153.1
Manufacture of bakery products, pastry, biscuits	13	128.8	129.1	129.3	136.9	141.5	161.8
Manufacture of sugar	45	161.4	164.2	163.5	145.2	141.8	140.3
Beverages and Tobacco	327	104.1	104.1	104.1	113.0	113.0	113.0
<i>% change, previous month</i>		<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>
<i>% change, 12 months</i>		<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>8.6</i>	<i>8.6</i>	<i>8.6</i>
Manufacture of beer, soft drinks and tobacco	327	104.1	104.1	104.1	113.0	113.0	113.0
Other than Food, Beverages and Tobacco	544	130.6	130.8	129.4	134.1	136.1	135.7
<i>% change, previous month</i>		<i>1.6</i>	<i>0.2</i>	<i>-1.0</i>	<i>1.2</i>	<i>1.5</i>	<i>-0.3</i>
<i>% change, 12 months</i>		<i>5.8</i>	<i>6.2</i>	<i>5.1</i>	<i>2.7</i>	<i>4.1</i>	<i>4.9</i>
Manufacture of textiles, wearing apparel, tanning and dressing of leather	47	123.2	123.2	123.2	126.0	126.0	126.0
Manufacture of paper and paper products, publishing of books, newspapers	40	122.9	122.2	120.7	122.6	122.9	121.9
Manufacture of chemical products	172	121.2	121.7	117.3	117.7	128.2	128.2
Manufacture of plastic products, tubes, retreading and rebuilding of rubber tyres	45	136.4	137.8	139.8	137.1	141.6	139.8
Manufacture of ceramic products, cement, lime and articles of concrete	126	138.6	138.6	138.6	139.2	140.4	140.4
Manufacture of fabricated metal products	70	152.1	152.1	152.1	157.0	157.7	156.5
Manufacture of furniture	43	118.7	118.7	118.7	126.8	137.8	137.8

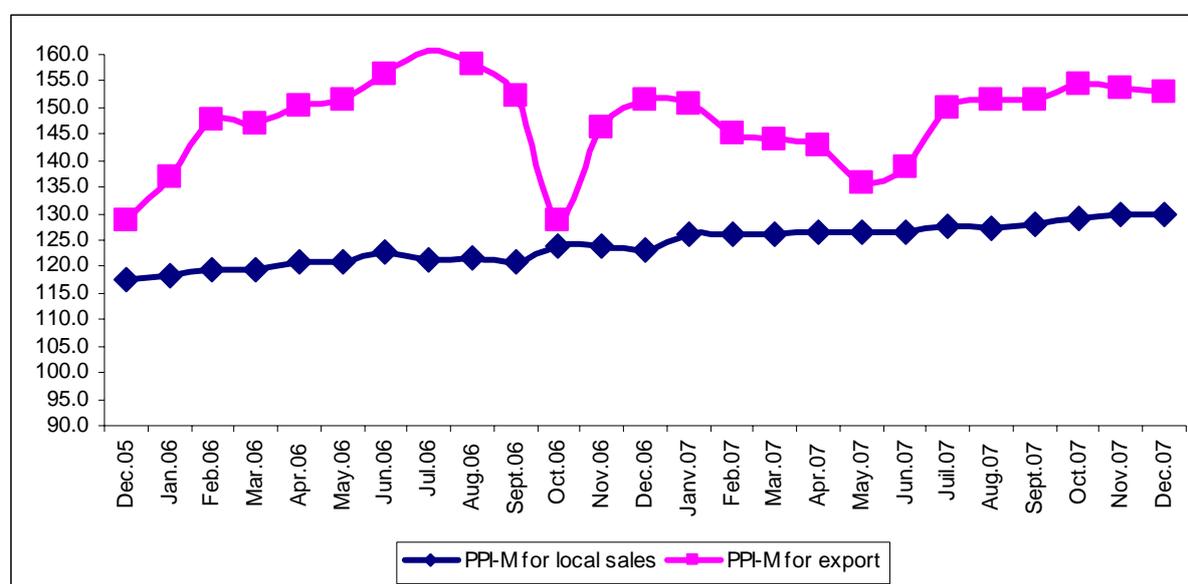
Source: Quarterly Producer Price Index Survey

Table 1b: Monthly Producer Price Indices by activity group: Fourth Quarter 2007
 Goods produced mainly for export
 (Base Period: Fourth Quarter 2003 = 100)

Activity group	Weight	2006			2007		
		Oct.	Nov.	Dec.	Oct.	Nov.	Dec.
PPI for Mainly Export Products	1000	146.3	146.6	151.3	151.4	153.8	153.1
<i>% change, previous month</i>		-4.0	0.3	3.2	-2.0	1.6	-0.5
<i>% change, 12 months</i>		8.6	11.8	17.6	3.5	4.9	1.2
Manufacture of other food products n.e.c	978	147.5	147.9	152.6	150.9	151.7	151.1
<i>% change, previous month</i>		-4.0	0.3	3.2	-2.1	0.5	-0.4
<i>% change, 12 months</i>		7.6	18.0	10.5	2.3	2.6	-1.0
Production of tea	585	108.0	106.3	114.3	104.9	103.7	109.4
Production of coffee	392	206.4	209.9	209.7	219.5	223.2	213.3
Manufacture of pesticides and other agro-chemical products	22	91.5	91.5	91.5	174.8	250.5	240.5
<i>% change, previous month</i>		-4.1	0.0	0.0	0.0	43.3	-4.0
<i>% change, 12 months</i>		-6.0	-6.0	-6.0	91.0	173.8	162.8
Production of pyrethrum	22	91.5	91.5	91.5	174.8	250.5	240.5

Source: Quarterly Producer Price Index Survey

Graph1: PPI for local sales and export products
 (Fourth quarter 2003=100)



Source: Quarterly Producer Price Index Survey

I. PPI-M (Base year: 4th Quarter 2003 =100)

1.1 PPI-M: Local sales (tables 1a)

The general price index for products manufactured for local sales remained unchanged (130.0) in December 2007 when compared to the index registered in the previous month, following two consecutive monthly increases of 0.8% in October and November 2007. The index for « Food products, beverages and tobacco» registered a slight increase of 0.4% in December 2007, whereas the index for «Other products than food, beverage and tobacco» declined slightly by 0.3% in the same period (See table 1a).

On an annual change, the global price index for the manufactured products sold on local market rose by 5.5% in December 2007. This increase is due to the increases in the sub group of « Food products, beverages and tobacco» (+6.4%) and the subgroup of « Other than Food, beverages and tobacco» (+4.9%). The subgroup of « Food products, beverages and tobacco» went upward due to the overall effect of price changes in the following posts:

- «Beverages and tobacco» (+8.6%) as a result of the increase in consumption tax which rose from 57% to 60% in January 2007,
- «Production, processing and preserving of meat and meat products» (+14.1%), «Manufacture of dairy products» (+7.5%) «Manufacture of grain flour and animal feeds products» (+18.7%), «Manufacture of bakery products, and biscuits» (+25.1%).

The main reason of these increases is the higher prices of raw materials (wheat flour and cooking oil, etc.). The decline of sugar price (-14.2%) partly dampened the trend, this downfall is due to the low price of imported sugar.

The rise in price index for subgroup « Other than Food, Beverages and Tobacco » (+4.9%) was a result of price increases in the following posts: «Manufacture of non metal mineral products » (+1.3%), « Manufacture of furniture » (+16.1%), «Manufacture of textiles, clothing and leather dressing » (+2.2%) and «Manufacture of chemical products » (+9.3%).

1.2 PPI-M Exports (table1b)

The PPI-M for goods mainly produced for export stood at 151.4 in October, 153.8 in November and 153.1 in December 2007, that is a decrease of 2.0% and 0.5% in October and December respectively and an increase of 1.6% in November 2007. The index of the sub group of « Manufacturing of food products n.e.c» recorded a slight decrease of 0.4% in December 2007 when compared to the previous month. From month to month, export price index of coffee declined by 4.4% in December 2007, whereas export price index of tea grew up by 5.5% in the same period.

On annual basis, the index for goods mainly produced for export increased by 1.2% in December 2007. This increase is a result of combined effect of the price changes for tea (-4.3%) and coffee (+ 1.7%).

II. Analysis of trends- Quarterly Change

2.1 PPI-M Local sales

Compared to the index registered in the previous quarter, the index of the fourth quarter (129.6) increased by 1.6%. On annual basis, the PPI-M for local sold products went up by 4.8% in fourth quarter 2007 if compared to the fourth quarter 2006.

2.2 PPI-M Exports

The price index for products manufactured for exports during the fourth quarter of the year 2007(152.8) recorded an increase of 0.8% when compared to the index of the previous quarter and 3.2% when compared to the index of the same quarter of the previous year. The quarterly indices of coffee and tea have maintained the same trends as those observed in their monthly indices with (+4.8%) and (-3.2%) respectively. One notes the pyrethrum prices went up tremendously (+142.5%) due to the improvement of the quality of pyrethrum products.

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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.

$$I_c = \sum \frac{w_i * (P_{ci} / P_{oi})}{\sum w_i} * 100$$

Where I_c = Index for current month

W_i = Weight associated with product i

P_{ci} = 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.
