



NATIONAL INSTITUTE OF
STATISTICS OF RWANDA



NATIONAL BANK OF RWANDA

**PRODUCER PRICE INDEX FOR
MANUFACTURING SECTOR (PPI-M)
FOURTH QUARTER 2008**

Background

This is the sixteenth issue 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 Statistics Institute of Rwanda (NSIR) and the National Bank of Rwanda (NBR).

Table 1a: Monthly Producer Price Indices by activity group: **Fourth Quarter 2008**
Goods Produced mainly for local sales
(Base Period: Fourth Quarter 2003 = 100)

Activity group	Weight	2007			2008			2007	2008
		Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	4Qrt	4Qrt
PPI for Mainly Local Sold products	1000	129.0	130.1	130.0	168.0	158.7	158.4	129.6	161.7
<i>% change, previous month/quarter^(*)</i>		<i>0.8</i>	<i>0.8</i>	<i>-0.1</i>	<i>6.5</i>	<i>-5.5</i>	<i>-0.2</i>	<i>1.6</i>	<i>2.7</i>
<i>% change, 12 months</i>		<i>5.2</i>	<i>5.0</i>	<i>4.3</i>	<i>30.3</i>	<i>22.0</i>	<i>21.8</i>	<i>4.8</i>	<i>24.7</i>
Food Products, Beverages and Tobacco	456	122.8	122.7	123.0	152.8	153.5	152.8	122.9	153.1
<i>% change, previous month/quarter^(*)</i>		<i>0.2</i>	<i>0.0</i>	<i>0.2</i>	<i>12.7</i>	<i>0.5</i>	<i>-0.4</i>	<i>0.1</i>	<i>0.7</i>
<i>% change, 12 months</i>		<i>6.1</i>	<i>5.8</i>	<i>6.3</i>	<i>24.5</i>	<i>25.1</i>	<i>24.2</i>	<i>6.1</i>	<i>24.6</i>
Food Products	129	147.3	147.2	148.2	186.9	189.4	187.0	147.7	187.8
<i>% change, previous month/quarter^(*)</i>		<i>0.7</i>	<i>0.0</i>	<i>0.7</i>	<i>2.5</i>	<i>1.3</i>	<i>-1.3</i>	<i>0.2</i>	<i>2.1</i>
<i>% change, 12 months</i>		<i>1.5</i>	<i>0.8</i>	<i>2.2</i>	<i>26.9</i>	<i>28.7</i>	<i>26.2</i>	<i>1.6</i>	<i>27.3</i>
Production, processing and preserving of meat and meat products	3	170.6	170.6	170.6	220.9	220.9	220.9	170.6	220.9
Processing and preserving of fruits and vegetables	8	145.4	145.4	145.4	156.7	156.7	156.9	145.4	156.8
Manufacture of dairy products	32	148.9	149.6	149.6	198.0	198.0	198.0	149.4	198.0
Manufacture of grain mill and animal feeds products	27	150.5	151.1	151.1	171.3	186.1	185.9	153.0	181.1
Manufacture of bakery products, pastry, biscuits	13	137.7	142.3	162.6	203.9	203.9	203.9	146.7	203.9
Manufacture of sugar	45	145.6	143.3	140.3	186.7	184.9	178.2	142.4	183.3
Beverages and Tobacco	327	113.0	113.0	113.0	139.3	139.3	139.3	113.0	139.3
<i>% change, previous month/quarter^(*)</i>		<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>18.8</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>
<i>% change, 12 months</i>		<i>8.6</i>	<i>8.6</i>	<i>8.6</i>	<i>23.2</i>	<i>23.2</i>	<i>23.2</i>	<i>8.6</i>	<i>23.2</i>
<i>Manufacture of beer, soft drinks and tobacco</i>	327	113.0	113.0	113.0	139.3	139.3	139.3	113.0	139.3
Other than Food, Beverages and Tobacco	544	134.3	136.2	135.8	180.8	163.1	163.0	135.3	169.0
<i>% change, previous month/quarter^(*)</i>		<i>0.4</i>	<i>1.5</i>	<i>-0.3</i>	<i>2.1</i>	<i>-9.8</i>	<i>0.0</i>	<i>2.8</i>	<i>4.2</i>
<i>% change, 12 months</i>		<i>5.7</i>	<i>5.4</i>	<i>3.2</i>	<i>34.7</i>	<i>19.7</i>	<i>20.0</i>	<i>3.9</i>	<i>24.8</i>
Manufacture of textiles, wearing apparel, tanning and dressing of leather	47	126.0	126.0	126.0	146.6	146.4	146.7	126.0	146.6
Manufacture of paper and paper products, publishing of books, newspapers	40	122.4	122.9	121.9	367.3	123.5	126.4	122.4	205.7
Manufacture of chemical products	172	122.6	128.2	128.2	139.0	139.0	138.6	126.3	138.9
Manufacture of plastic products, tubes, retreading and rebuilding of rubber tyres	45	140.9	143.1	141.3	169.5	169.5	169.5	140.3	169.5
Manufacture of ceramic products, cement, lime and articles of concrete	126	140.4	140.4	140.4	182.2	182.4	182.4	140.4	182.3
Manufacture of fabricated metal products	70	157.9	157.7	156.5	218.5	218.5	218.5	157.4	218.5
Manufacture of furniture	43	137.8	137.8	137.8	156.9	161.4	159.4	137.8	159.3

(*) Only for quarterly figures

Source: Quarterly Producer Price Index Survey

Table 1b: Monthly Producer Price Indices by activity group: **Fourth Quarter 2008**
Goods produced mainly for export

(Base Period: Fourth Quarter 2003 = 100)

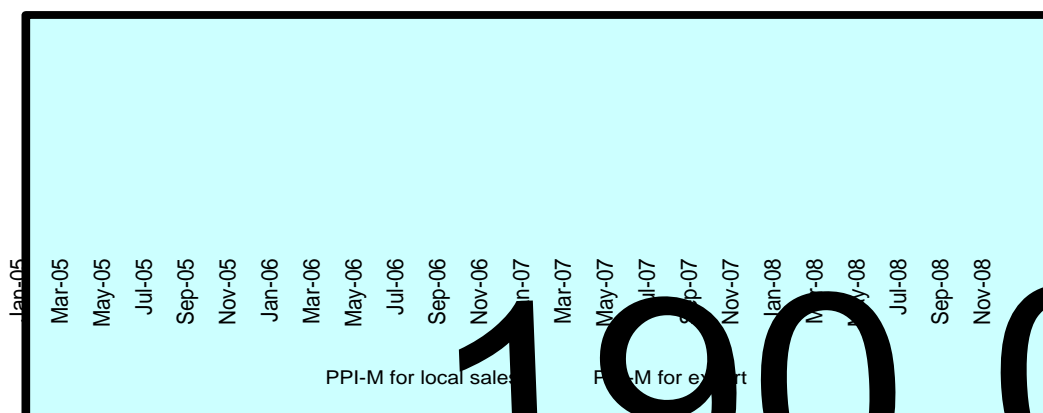
Activity group	Weight	2007			2008			2007	2008
		Oct.	Nov.	Dec.	Oct.	Nov.	Dec.	4Qrt	4Qrt
PPI for Mainly Export Products	1000	151.4	153.8	153.1	175.1	158.8	165.9	152.8	166.6
% change, previous month/quarter ^(*)		-2.0	1.6	-0.5	-5.0	-9.3	4.5	0.8	-7.1
% change, 12 months		3.5	4.9	1.2	15.6	3.2	8.4	3.2	9.0
Manufacture of other food products n.e.c	978	150.9	151.7	151.1	174.3	155.4	162.7	151.2	164.1
% change, previous month/quarter ^(*)		-2.1	0.5	-0.4	-5.1	-10.8	4.7	0.6	-8.1
% change, 12 months		2.3	2.6	-1.0	15.5	2.5	7.7	1.3	8.5
Production of tea	585	104.9	103.7	109.4	136.8	113.3	125.5	106.0	125.2
% change, previous month/quarter ^(*)		-5.7	-1.2	5.5	-9.2	-17.2	10.7	-0.4	-12.2
% change, 12 months		-2.8	-2.5	-4.3	30.4	9.3	14.7	-3.2	18.1
Production of coffee	392	219.5	223.2	213.3	230.1	218.2	218.2	218.6	222.2
% change, previous month/quarter ^(*)		0.7	1.7	-4.5	-1.1	-5.2	0.0	1.3	-4.4
% change, 12 months		6.3	6.3	1.7	4.9	-2.2	2.3	4.8	1.6
Manufacture of pesticides and other agro-chemical products	22	174.8	250.5	240.5	210.9	306.6	306.6	221.9	274.7
% change, previous month/quarter ^(*)		0.0	43.3	-4.0	0.0	45.3	0.0	6.8	30.2
% change, 12 months		91.0	173.8	162.8	20.7	22.4	27.5	142.5	23.8
Production of pyrethrum	22	174.8	250.5	240.5	210.9	306.6	306.6	221.9	274.7

(*) Only for quarterly figures

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 results of the index of products in manufacturing sector for sale on the local market recorded a monthly decline of 0.2 % at the end of December 2008 compared to previous month. This slight decrease resulted from a decline in the level of prices of the subgroup « Food products, Beverage and Tobacco» (158.4 in December against 158.7 in November). The subgroup «Food products, Beverage and Tobacco» went down by 4.0% in December 2008 while the subgroup « Other than Food, Beverages and Tobacco » remained unchanged.

During the period of last twelve months that is between December 2007 and December 2008, the index of products manufactured for local sales rose by 30.3% in October, 22.0% in November and 21.8% at the end of December. *This growth occurred in all manufacturing products due to a rise in the cost of production emanated from the high price of fuel. However, toward the end of the quarter under review, the prices started to show downward trend as a response to the fall in the price of fuel at the international market.*

The index of subgroup « Food products, Beverage and Tobacco» experienced an increase of 24.2% in December of which: «Production of dairy products» (+32.3%), «Manufacture of sugar» (+27.1%) and « Manufacture of bakery products, pastry and biscuits» (+25.4%), and «Production of beverages and tobacco» (+23.2%).

The rise of the index for the subgroup « Other than Food, Beverages and Tobacco » by 20.0% in December 2008 compared to the same month of the year 2007 was mostly due to the overall effect of price changes in the following groups: «Manufacture of ceramic products, cement, lime and concrete items» (+30.0%), «Manufacture of fabricated metal products» (+39.6%), and «Manufacture of plastic products plastic tubes and retreading and rebuilding of tyres» (+19.9%).

The main general reason for the price changes as reported by the producers are: increase in the cost of imported raw materials, however there are special cases occurred in dairy products whereby the increase was resulted from the introduction of a new packaging materials which are expensive compared to the ones used before.

1.2 PPI-M Exports (table1b)

The PPI-M for goods mainly produced for exports stood at 165.9% in December, which is an increase of 4.5% compared to the previous month.

On annual basis, the index for December 2008 was 8.4% higher. This increase was mainly attributable to higher prices fetched for tea (+14.7%) and pyrethrum (+27.5%).

II. Analysis of trends- Quarterly Change

2.1 PPI-M Local sales

The index of the fourth quarter registered an increase of 2.7% compared to the index of the previous quarter and an increase of 24.7% compared to the fourth quarter of the year 2007.

2.2 PPI-M Exports

The quarterly index for manufacturing exports registered a decrease of 7.1% in the fourth quarter of 2008 compared to the previous quarter and an increase of 9.0% compared to the same quarter of the previous year.

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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.