



NATIONAL INSTITUTE OF STATISTICS
OF RWANDA



NATIONAL BANK OF RWANDA

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

THIRD QUARTER 2008

Background

This is the fifteenth 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: **Third Quarter 2008**
Goods Produced mainly for local sales
(Base Period: Fourth Quarter 2003 = 100)

Activity group	Weight	2007			2008		
		Jul.	Aug.	Sept.	Jul.	Aug.	Sept.
PPI for Mainly Local Sold products	1000	127.5	127.4	128.0	156.7	157.8	157.9
<i>% change, previous month</i>		<i>0.7</i>	<i>-0.1</i>	<i>0.5</i>	<i>6.5</i>	<i>0.7</i>	<i>0.1</i>
<i>% change, 12 months</i>		<i>5.2</i>	<i>5.0</i>	<i>4.3</i>	<i>22.7</i>	<i>23.8</i>	<i>23.4</i>
Food Products, Beverages and Tobacco	456	123.0	122.5	122.5	150.7	152.5	152.7
<i>% change, previous month</i>		<i>1.1</i>	<i>-0.4</i>	<i>0.0</i>	<i>12.7</i>	<i>1.2</i>	<i>0.1</i>
<i>% change, 12 months</i>		<i>4.6</i>	<i>4.4</i>	<i>5.8</i>	<i>22.5</i>	<i>24.4</i>	<i>24.7</i>
Food Products	129	148.3	146.4	146.3	179.7	185.8	186.5
<i>% change, previous month</i>		<i>3.2</i>	<i>-1.2</i>	<i>-0.1</i>	<i>2.5</i>	<i>3.3</i>	<i>0.4</i>
<i>% change, 12 months</i>		<i>-2.2</i>	<i>-2.9</i>	<i>0.7</i>	<i>21.2</i>	<i>26.8</i>	<i>27.5</i>
Production, processing and preserving of meat and meat products	3	170.6	170.6	170.6	188.5	188.5	188.5
Processing and preserving of fruits and vegetables	8	143.9	143.9	143.9	145.7	151.2	151.2
Manufacture of dairy products	32	148.9	148.9	148.9	172.6	202.7	202.7
Manufacture of grain mill and animal feeds products	27	143.8	144.1	144.5	166.5	164.0	170.3
Manufacture of bakery products, pastry, biscuits	13	135.3	135.4	135.4	199.9	200.6	200.6
Manufacture of sugar	45	153.6	148.1	147.5	192.4	188.7	187.2
Beverages and Tobacco	327	113.0	113.0	113.0	139.3	139.3	139.3
<i>% change, previous month</i>		<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>18.8</i>	<i>0.1</i>	<i>0.0</i>
<i>% change, 12 months</i>		<i>8.6</i>	<i>8.6</i>	<i>8.6</i>	<i>23.1</i>	<i>23.2</i>	<i>23.2</i>
Manufacture of beer, soft drinks and tobacco	327	113.0	113.0	113.0	139.2	139.2	139.3
Other than Food, Beverages and Tobacco	544	131.2	132.6	132.6	161.8	162.3	162.3
<i>% change, previous month</i>		<i>0.4</i>	<i>1.0</i>	<i>0.0</i>	<i>2.1</i>	<i>0.3</i>	<i>0.0</i>
<i>% change, 12 months</i>		<i>5.7</i>	<i>5.4</i>	<i>3.2</i>	<i>23.2</i>	<i>22.4</i>	<i>22.4</i>
Manufacture of textiles, wearing apparel, tanning and dressing of leather	47	125.7	125.7	125.8	145.6	146.1	147.2
Manufacture of paper and paper products, publishing of books, newspapers	40	122.6	123.5	122.8	123.7	123.3	122.6
Manufacture of chemical products	172	117.7	118.0	121.3	138.7	138.7	138.7
Manufacture of plastic products, tubes, retreading and rebuilding of rubber tyres	45	138.6	138.7	139.3	169.5	169.5	169.5
Manufacture of ceramic products, cement, lime and articles of concrete	126	139.2	139.6	140.3	180.7	182.4	182.4
Manufacture of fabricated metal products	70	157.0	157.0	157.0	218.5	218.5	218.5
Manufacture of furniture	43	126.8	126.8	125.3	152.2	152.8	152.8

Source: Quarterly Producer Price Index Survey

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

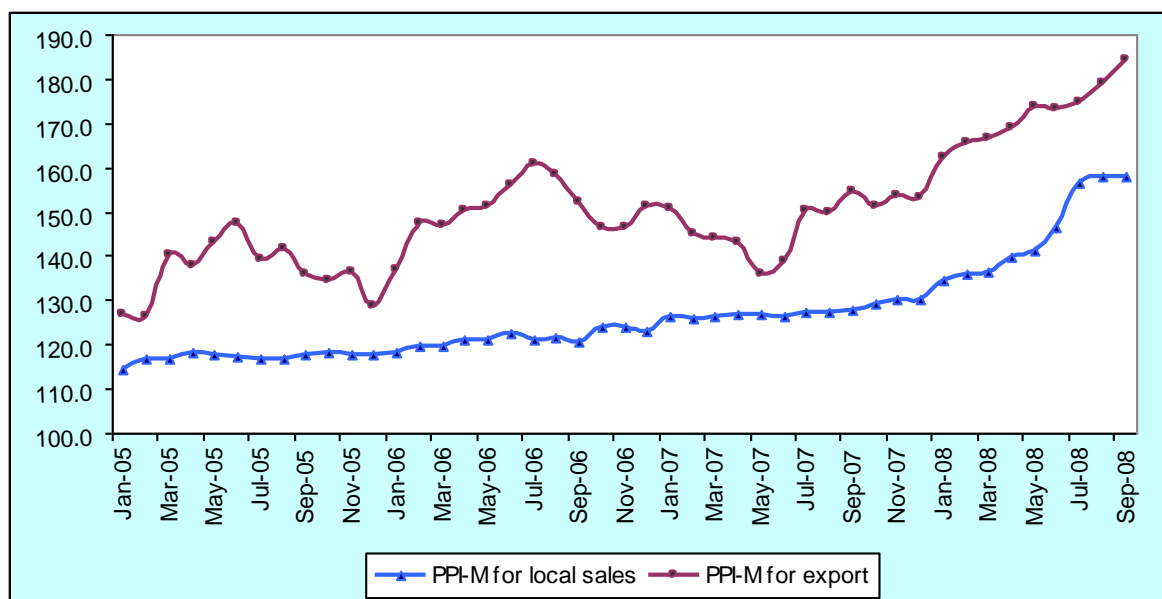
(Base Period: Fourth Quarter 2003 = 100)

Activity group	Weight	2007			2008		
		Jul.	Aug.	Sept.	Jul.	Aug.	Sept.
PPI for Mainly Export Products	1000	150.4	150.0	154.6	174.7	179.1	184.2
<i>% change, previous month</i>		8.8	-0.3	3.0	0.9	2.5	2.9
<i>% change, 12 months</i>		-6.5	-5.2	1.5	16.2	19.4	19.2
Manufacture of other food products n.e.c	978	147.6	149.4	154.1	173.9	178.4	183.6
<i>% change, previous month</i>		5.7	1.3	3.1	0.9	2.6	2.9
<i>% change, 12 months</i>		-9.1	-6.4	0.3	17.8	19.4	19.2
Production of tea	585	102.9	105.0	111.3	135.1	141.9	150.7
<i>% change, previous month</i>		7.7	2.0	6.0	5.0	5.0	6.2
<i>% change, 12 months</i>		-23.7	-2.7	-7.8	31.3	35.2	35.4
Production of coffee	392	214.2	215.7	217.9	231.6	232.8	232.8
<i>% change, previous month</i>		4.3	0.7	10.	0.6	0.5	0.0
<i>% change, 12 months</i>		5.3	6.1	7.5	8.2	7.9	6.8
Manufacture of pesticides and other agro-chemical products	22	273.6	174.8	174.8	210.9	210.9	210.9
<i>% change, previous month</i>		269.5	-36.1	0.0	0.0	0.0	0.0
<i>% change, 12 months</i>		186.8	72.3	83.2	-22.9	20.7	20.7
Production of pyrethrum	22	273.6	174.8	174.8	210.9	210.9	210.9

Source: Quarterly Producer Price Index Survey

Graph1: PPI for local sales and export products

(Fourth quarter 2003=100)



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

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

The index of products manufactured for sale on the local market recorded a slight monthly increase of 0.1% at the end of September compared to previous month. This slight increase was resulted from the increase in the price of food products (see table 1a).

During the period of last twelve months that is between September 2007 and September 2008 the index of products manufactured for local sales rose by 22.9% in July, 23.8% in August and 23.4% at the end of September. This growth occurred in all manufacturing products to the extent that the percentage change in different branches is more than 20% in all months of the reviewed quarter (see table 1a).

The index of subgroup « Food products, Beverage and Tobacco» experienced an increase during the last twelve months following the increase in the subgroup « Food products» which increased by 27.5% of which: «Manufacture of bakery products, pastry and biscuits» (+48.2%), «Production of dairy products» (+36.1%), «Manufacture of sugar» (+26.9%) and «Production of beverages and tobacco» (+23.2%).

The rise of the index for the subgroup « Other than Food, Beverages and Tobacco » by 22.4% in September 2008 compared to the same month of year 2007 was mostly due to the overall effect of price changes in the following groups: “Manufacture of fabricated metal products” (+39.2%), “Manufacture of ceramic products, cement, lime and concrete items” (+30.0%), “Manufacture of furniture” (+21.9%) and “Manufacture of plastic products plastic tubes and retreading and rebuilding of tyres” (+21.7%). In all these subgroups higher selling prices reflected the increase in the cost of imported raw materials.

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 that occurred in dairy products whereby the increase was a result of the introduction of a new packaging material which is expensive compared to one used before. There is no any group which experienced a decline in branch of food products, beverages and tobacco.

1.2 PPI-M Exports (table 1b)

As shown in the table 1b, the PPI-M for goods mainly produced for exports stood at 174.7 in July, 179.1 in August and 184.2 in September 2008. Hence an increase of 0.9%, 2.5% and 2.9% in July, August and September respectively. The Price index fetched for coffee exports registered an increase of 0.6% in July, 0.5% in August, whereas in September remained unchanged. On the other hand, export price index of tea registered an increase of 5.0% in July, 5.0% in August and 6.2% in September. The price fluctuations for both coffee and tea are caused by price changes on the international market. Compared to September 2007 (154.6), the index for September 2008 (184.2) was 19.2% higher. This increase was mainly attributable to higher prices fetched for tea (+35.4%).

II. Analysis of trends- Quarterly Change

2.1 PPI-M Local sales

Comparing to the index of the previous quarter, the index of the third quarter moved upward to reach at 157.5, that is an increase of 10.5%. On annual basis the index registered 23.4% increase as it raised from 127.6 in the third quarter of year 2007 to reach at 157.5 in the third quarter of year 2008.

2.2 PPI-M Exports

The quarterly index for manufacturing exports registered an increase of 4.3% in the third quarter of 2008 compared to the previous quarter. During the third quarter, the annual quarterly change was 18.3%, it raised from 151.6 in the third quarter of 2007 to reach at 179.3 in the third quarter of 2008. This increase is due to price rise by 34.0% and 7.6% for tea and coffee respectively.

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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.