



NATIONAL INSTITUTE OF  
STATISTICS OF RWANDA



NATIONAL BANK OF RWANDA

PRODUCER PRICE INDEX FOR  
MANUFACTURING SECTOR (PPI-M)  
3<sup>rd</sup> QUARTER 2006

**Background**

This is the seventh 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 2006  
**Goods Produced mainly for local sales**  
*(Base Period: Fourth Quarter 2003 = 100)*

Activity group	Weight	2005			2006		
		Jul.	Aug.	Sept.	Jul.	Aug.	Sept.
<b>PPI for Mainly Local Sold products</b>	<b>1000</b>	<b>116.8</b>	<b>116.7</b>	<b>117.9</b>	<b>121.3</b>	<b>121.5</b>	<b>120.8</b>
<i>% change, previous month</i>		<i>-0.5</i>	<i>0.0</i>	<i>1.0</i>	<i>-1.2</i>	<i>0.2</i>	<i>-0.6</i>
<i>% change, 12 months</i>		<i>7.0</i>	<i>6.6</i>	<i>7.0</i>	<i>3.9</i>	<i>4.1</i>	<i>2.4</i>
<b>Food Products, Beverages and Tobacco</b>	<b>456</b>	<b>112.2</b>	<b>112.3</b>	<b>112.0</b>	<b>117.6</b>	<b>117.4</b>	<b>115.8</b>
<i>% change, previous month</i>		<i>-0.8</i>	<i>0.0</i>	<i>-0.2</i>	<i>0.9</i>	<i>-0.2</i>	<i>-1.3</i>
<i>% change, 12 months</i>		<i>4.5</i>	<i>4.3</i>	<i>3.9</i>	<i>4.8</i>	<i>4.6</i>	<i>3.4</i>
<b>Food Products</b>	<b>129</b>	<b>134.6</b>	<b>132.9</b>	<b>132.1</b>	<b>151.6</b>	<b>150.8</b>	<b>145.3</b>
<i>% change, previous month</i>		<i>1.2</i>	<i>-1.3</i>	<i>-0.6</i>	<i>2.6</i>	<i>-0.5</i>	<i>-3.7</i>
<i>% change, 12 months</i>		<i>18.2</i>	<i>15.7</i>	<i>14.3</i>	<i>12.6</i>	<i>13.5</i>	<i>10.0</i>
Production, processing and preserving of meat and meat products	3	125.5	125.5	125.5	143.1	143.1	143.1
Processing and preserving of fruits and vegetables	8	122.4	130.1	130.1	141.1	141.1	141.1
Manufacture of dairy products	32	134.7	134.7	134.7	141.1	141.1	141.1
Manufacture of grain mill and animal feeds products	27	113.7	113.8	113.8	124.7	124.6	132.4
Manufacture of bakery products, pastry, biscuits	13	128.3	128.1	127.9	128.0	127.9	127.9
Manufacture of sugar	45	151.9	145.6	143.2	184.7	182.6	162.0
<b>Beverages and Tobacco</b>	<b>327</b>	<b>103.3</b>	<b>104.1</b>	<b>104.1</b>	<b>104.1</b>	<b>104.1</b>	<b>104.1</b>
<i>% change, previous month</i>		<i>-1.9</i>	<i>0.7</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>	<i>0.0</i>
<i>% change, 12 months</i>		<i>-1.4</i>	<i>-0.7</i>	<i>-0.7</i>	<i>0.8</i>	<i>0.0</i>	<i>0.0</i>
Manufacture of beer, soft drinks and tobacco	327	103.3	104.1	104.1	104.1	104.1	104.1
<b>Other than Food, Beverages and Tobacco</b>	<b>544</b>	<b>120.6</b>	<b>120.4</b>	<b>122.8</b>	<b>124.3</b>	<b>124.9</b>	<b>124.9</b>
<i>% change, previous month</i>		<i>-0.2</i>	<i>-0.1</i>	<i>2.0</i>	<i>-2.8</i>	<i>0.5</i>	<i>0.0</i>
<i>% change, 12 months</i>		<i>8.9</i>	<i>8.5</i>	<i>9.5</i>	<i>2.5</i>	<i>3.8</i>	<i>1.7</i>
Manufacture of textiles, wearing apparel, tanning and dressing of leather	47	122.5	122.5	122.5	123.2	123.2	123.2
Manufacture of paper and paper products, publishing of books, newspapers	40	120.8	120.6	122.8	119.1	125.1	125.2
Manufacture of chemical products	172	115.9	115.7	115.2	108.7	108.9	108.8
Manufacture of plastic products, tubes, retreading and rebuilding of rubber tyres	45	123.5	122.8	122.6	134.0	134.6	134.4
Manufacture of ceramic products, cement, lime and articles of concrete	126	118.5	118.5	129.0	129.0	129.0	129.0
Manufacture of fabricated metal products	70	136.9	136.9	136.8	155.4	156.0	156.1
Manufacture of furniture	43	113.6	113.6	113.8	118.7	118.7	118.7

Source: Quarterly Producer Price Index Survey

Table 1b: Monthly Producer Price Indices by activity group: Third Quarter 2006  
Goods produced mainly for export

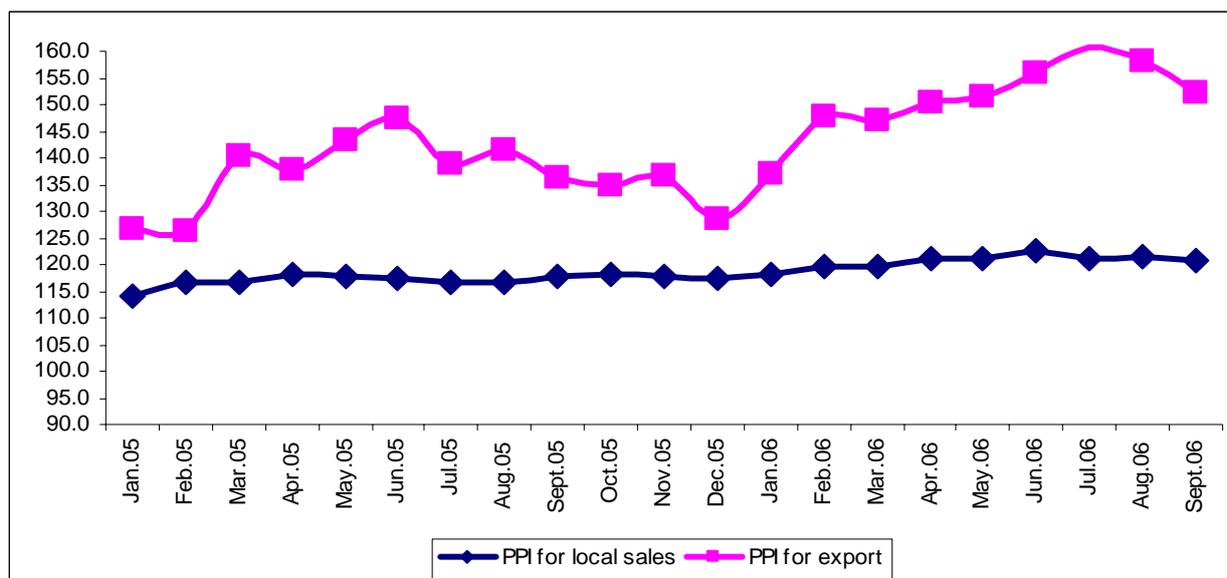
(Base Period: Fourth Quarter 2003 = 100)

Activity group	Weight	2005			2006		
		Jul.	Aug.	Sept.	Jul.	Aug.	Sept.
<b>PPI for Mainly Export Products</b>	<b>1000</b>	<b>139.1</b>	<b>141.5</b>	<b>136.1</b>	<b>160.9</b>	<b>158.2</b>	<b>152.3</b>
% change, previous month		-5.6	1.8	-3.8	3.1	-1.7	-3.7
% change, 12 months		15.6	26.5	12.7	15.7	11.8	11.9
<b>Manufacture of other food products n.e.c</b>	<b>978</b>	<b>140.0</b>	<b>142.5</b>	<b>137.0</b>	<b>162.4</b>	<b>159.6</b>	<b>153.6</b>
% change, previous month		-5.7	1.8	-3.9	3.2	-1.7	-3.8
% change, 12 months		15.9	27.1	13.0	16.0	12.0	12.1
Production of tea	585	91.1	94.1	94.0	135.0	130.3	120.8
Production of coffee	392	213.0	214.8	201.1	203.4	203.4	202.6
<b>Manufacture of pesticides and other agro-chemical products</b>	<b>22</b>	<b>97.4</b>	<b>97.4</b>	<b>97.4</b>	<b>95.4</b>	<b>95.4</b>	<b>95.4</b>
% change, previous month		-1.7	0.0	0.0	-1.7	0.0	0.0
% change, 12 months		-4.0	-4.0	-4.0	-2.1	-2.1	-2.1
Production of pyrethrum	22	97.4	97.4	97.4	95.4	95.4	95.4

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: 4<sup>th</sup> Quarter 2003 =100)

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

At the end of September 2006 the index for products manufactured for sale on the local market stood at 120.8, following an increase of 0.2% in August while in July and September the index decreased by 1.2 and 0.6 respectively.

However, compared to September 2005 (117.9), the index for September 2006 was 2.4% higher.

During the period of last twelve months, that is between September 2005 and September 2006, the index for «Manufacturing products» registered an increase mainly due to price increases in the subgroups: « Food products, Beverage and Tobacco» which increased by 3.4%, that is from 112.0 to 115.8 and subgroup « Other than Food, Beverage and Tobacco» which raised from 122.8 to 124.9, that is an increase of 1.7% from September 2005 to September 2006.

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 10.0% of which: «Manufacture of grain mill and animal feeds products» (+16.3%), «Production, processing and preserving of meat and meat products» (+14.0%), «Manufacture of sugar» (+13.1%) and «Processing and preserving of fruits and vegetables» (+8.5%).

Although the index for subgroup « Food products, Beverage and Tobacco» generally experienced an increase, the price index for «Beverages and Tobacco», remained unchanged. *Generally the main reasons for the price changes as reported by the producers are: increase in the cost of energy, as well as increase of purchase price of imported raw materials where prices increased, while where the prices decreased was due to competitiveness.*

The rise of the index for the subgroup « Other than Food, Beverages and Tobacco » was mostly due to the overall effect of price changes in the following groups: “Manufacture of fabricated metal products” (+14.0%), “Manufacture of plastic products, tubes, retreating and rebuilding of rubber tyres” (+9.6%) and “Manufacture of furniture” (+4.3%). While there was a decline in manufacture of chemical products by 5.6% due to reduction of customs duties of imported raw materials for soap manufacturing and competitiveness factor. In other subgroups higher selling prices reflected the increase in the production cost, namely the higher prices paid for raw materials and energy.



## 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.