

# Producer Price Index (PPI - Manufacturing)

## First Quarter 2005

### 1. Background

This is the first release of the monthly Producer Price Index for the Manufacturing sector (PPI-M) covering the period October 2003 to March 2005. Work on the development of the methodology for the construction of the PPI-M started in March 2003 with technical assistance from the IMF EastAFRITAC and financial assistance, from the UK DFID. The PPI project is a joint project between the Department of Statistics (DS) of the Ministry of Finance and Economic Planning and the National Bank of Rwanda (BNR). In addition, Rwanda joined the IMF General Data Dissemination System (GDDS) in October 2003, and the development of monthly PPI for Manufacturing was included among the list of priorities and as a core economic indicator.

### 2. PPI- Manufacturing (PPI-M)

#### *2.1 Definition*

The PPI-M is designed to measure the monthly change in the effective selling prices received by manufacturers for their products as they leave the factory gate. *Price information is at basic prices, that is, they do not include taxes on products (e.g. VAT and excise duties) and include any subsidy.* The PPI-M will therefore reflect the price trends of a constant basket of well-specified products representing the output of the manufacturing industries. The PPI-M will initially cover manufacturing establishments employing 10 or more workers.

The monthly PPI-M will be published in each quarter, about 8 weeks following the last data collection quarter. More details on the compilation methodology are provided in the Technical Note at Annex.

#### *2.2 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.

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

Table 1a: Monthly Producer Price Indices by activity group: **First Quarter 2005**  
**Goods Produced mainly for local sales**

(Base Period: Fourth Quarter 2003 = 100)

ISIC(Rev 3)	Activity group	Weight	Mar.04	Jan.05.	Feb.05	Mar.05	% change over	
							Previous month	12 months
<b>1511 - 3610</b>	<b>PPI for Mainly Local Sold products</b>	<b>1000</b>	<b>104.0</b>	<b>114.2</b>	<b>116.5</b>	<b>116.8</b>	<b>0.3</b>	<b>12.3</b>
1511-1600	Food Products, Beverages and Tobacco	456	104.8	109.5	111.7	112.3	0.5	7.2
1511-1542	Food Products	129	104.8	121.4	129.0	131.2	1.7	25.2
1511	Production, processing and preserving of meat and meat products	3	101.8	109.5	109.5	109.5	0.0	7.5
1513	Processing and preserving of fruits and vegetables	8	104.9	119.6	119.6	119.6	0.0	14.0
1520	Manufacture of dairy products	32	102.4	112.5	112.5	112.5	0.0	9.8
1531-1533	Manufacture of grain mill and animal feeds products	27	102.7	121.1	121.1	120.1	-0.8	17.0
1541	Manufacture of bakery products, pastry, biscuits	13	117.0	126.7	126.7	127.0	0.2	8.5
1542	Manufacture of sugar	45	104.3	127.3	149.3	155.9	4.4	49.5
1552-1600	Beverages and Tobacco	327	104.7	104.8	104.8	104.8	0.0	0.1
1552-1600	Manufacture of beer, soft drinks and tobacco	327	104.7	104.8	104.8	104.8	0.0	0.1
<b>1711-3610</b>	<b>Other than Food, Beverages and Tobacco</b>	<b>544</b>	<b>103.4</b>	<b>118.1</b>	<b>120.6</b>	<b>120.6</b>	<b>0.0</b>	<b>16.7</b>
1711-1920	Manufacture of textiles, wearing apparel, tanning and dressing of leather	47	106.7	122.1	122.3	122.3	0.0	14.7
2029-2221	Manufacture of paper and paper products, publishing of books, newspapers	40	103.2	110.3	109.9	109.9	0.0	6.5
2422-2429	Manufacture of chemical products	172	102.0	111.3	118.6	118.7	0.1	16.4
2511-2520	Manufacture of plastic products, tubes, retreading and rebuilding of rubber tyres	45	108.9	128.4	128.4	128.4	0.0	18.0
2693-2695	Manufacture of ceramic products, cement, lime and articles of concrete	126	100.4	117.3	117.9	117.9	0.0	17.3
2811-2899	Manufacture of fabricated metal products	70	108.3	133.8	133.8	133.8	0.0	23.6
3610	Manufacture of furniture	43	100.2	114.9	114.9	114.9	0.0	14.6

Source : Quarterly Producer Price Survey

Table 1b : Monthly Producer Price Indices by activity group: First Quarter 2005  
Goods produced mainly for export

(Base Period : Fourth Quarter 2003 = 100)

ISIC(Rev 3)	Activity group	Weight	Mar.04	Jan.05.	Feb.05	Mar.05	% change over	
							Previous month	12 months
1549 and 2421	PPI for Mainly Export Products	1000	104.7	126.6	126.2	140.2	11.1	33.9
1549	Manufacture of other food products n.e.c	978	104.8	127.2	126.8	141.2	11.3	34.7
1549	Production of tea	585	105.6	107.8	106.0	105.6	-0.3	0.1
1549	Production of coffee	392	103.6	156.2	158.0	194.1	22.9	87.5
2421	Manufacture of pesticides and other agro-chemical products	22	101.5	99.1	99.1	99.1	0.0	-2.4
2421	Production of pyrethrum	22	101.5	99.1	99.1	99.1	0.0	-2.4

Source: Quarterly Producer Price Survey

### 3.1 PPI-M: Local sales

The index for products manufactured for sale on the local market has maintained a steady upward trend. Compared to February 2005, the index for March 2005 recorded a slight increase of 0.3% whilst compared to March 2004 (104.0); prices for local sales were 12.3 % higher. During the 12 months-period, March 2004 to March 2005, the sub-index for "Food products, Beverages and Tobacco" increased from 104.8 to 112.3 representing an increase of 7.2%. Within this subgroup the index for "Food products" rose by 25.2%. Producer price for food items registered increases as follows: Sugar (+49.5%); Grain milling and animal feeds (+17.0%); Processing and preserving of fruits (+14.0%); and Dairy products (9.8%). Reasons provided for the increases are (i) increase in purchase price of imported raw materials and (ii) power shortage and increase in the cost of energy.

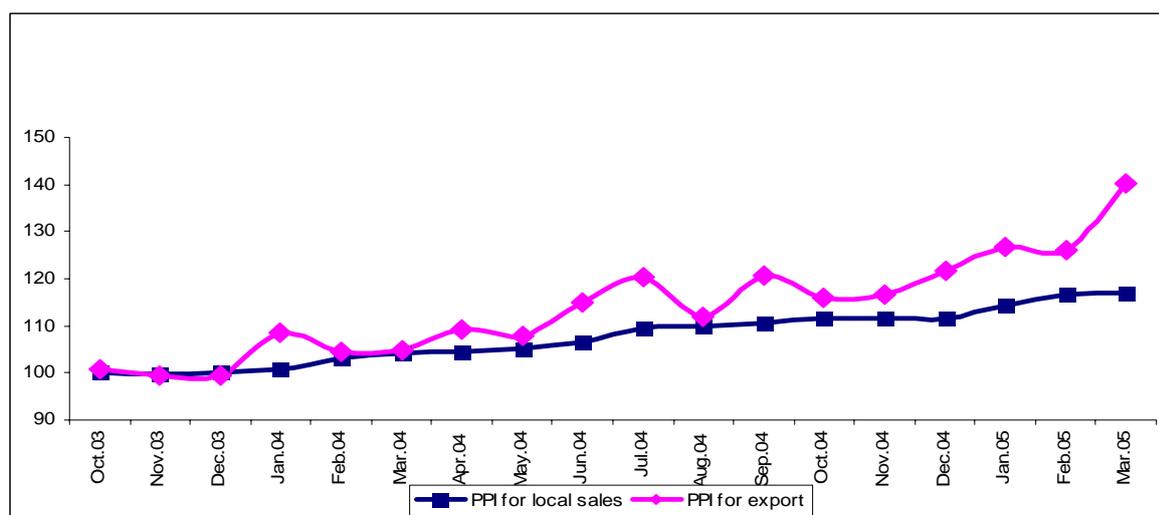
The PPI for other manufacturing products classified in the sub group "Other than Food, Beverages and Tobacco" increased by 16.7 % from 103.4 in March 2004 to 120.6 in March 2005. This rise was mainly attributable to the increase in the price of metal products (+ 23.6 %), following rise in the price of iron and steel in the international market, rubber and plastic products (+18.0%), manufacture of ceramic products, cement, lime and articles of concrete (+17.3%), manufacture of chemical (+16.4%), textile and leather (+14.7%) and manufacture of furniture (+14.6). Higher selling prices reflected the increase in production cost, namely the higher prices paid for purchase of raw materials and energy.

### 3.2 PPI-M Exports

The PPI-M for exports stood at 140.2 in March 2005 which compared to 126.2 in February 2005 shows 11.1 % over the previous month. This increase was mainly attributable to higher prices fetched for coffee (+22.9%). Compared with March 2004 export prices increased by 33.9%, this rise are explained by 87.5% increase of coffee prices whilst tea prices had a slight increase of 0.1%.

**Graph1: PPI for local sales and export products**

*(Fourth quarter 2003=100)*



## 4. Analysis of trends- Quarterly Change (Table 2.1 refers)

### 4.1 PPI-M Local sales

The quarterly index for local sales stood at 102.6 in the first quarter 2004 moved to 115.9 in the first quarter of 2005 showing an increase of 12.9%.

### 4.2 PPI-M Exports

The quarterly index for manufacturing exports rose from 105.9 in the first quarter of 2004 to 131.0 in the first quarter of 2005. Compared to prices 12 months ago, prices in the first quarter 2005 were therefore 23.7% higher.

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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 price relatives is 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.

$$IC = \frac{\sum W_i * \left( \frac{P_{ci}}{P_{oi}} \right)}{\sum W_i} * 100$$

Where IC = 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. Dissemination of PPI-M:** The monthly PPI-M will be published in each quarter, about 8 weeks following the quarter under review.