



NATIONAL INSTITUTE OF
STATISTICS OF RWANDA



NATIONAL BANK OF RWANDA

PRODUCER PRICE INDEX FOR
MANUFACTURING SECTOR (PPI-M)
FOURTH QUARTER 2006

Background

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

Activity group	Weight	2005			2006		
		Oct.	Nov.	Dec.	Oct.	Nov.	Dec.
PPI for Mainly Local Sold products	1000	118.0	117.9	117.5	123.8	124.0	123.2
<i>% change, previous month</i>		-0.3	-0.1	-0.3	0.9	0.2	-0.7
<i>% change, 12 months</i>		5.7	5.5	5.2	4.9	5.3	4.8
Food Products, Beverages and Tobacco	456	111.5	111.5	110.8	115.7	116.0	115.8
<i>% change, previous month</i>		-0.5	0.0	-0.6	-0.1	0.3	-0.2
<i>% change, 12 months</i>		3.6	3.6	3.1	3.8	4.1	4.5
Food Products	129	130.3	130.2	127.8	145.0	146.1	145.1
<i>% change, previous month</i>		-1.6	-0.1	-1.8	-0.2	0.7	-0.7
<i>% change, 12 months</i>		13.6	13.6	12.0	11.3	12.2	13.5
Production, processing and preserving of meat and meat products	3	130.6	140.1	140.1	149.5	149.5	149.5
Processing and preserving of fruits and vegetables	8	133.0	133.0	133.0	141.1	141.2	144.0
Manufacture of dairy products	32	137.2	133.4	133.4	142.2	142.2	139.1
Manufacture of grain mill and animal feeds products	27	113.6	113.4	129.8	129.8	129.8	129.0
Manufacture of bakery products, pastry, biscuits	13	127.9	127.9	127.8	128.8	129.1	129.3
Manufacture of sugar	45	135.5	137.4	130.8	16104	164.2	163.5
Beverages and Tobacco	327	104.1	104.1	104.1	104.1	104.1	104.1
<i>% change, previous month</i>		0.0	0.0	0.0	0.0	0.0	0.0
<i>% change, 12 months</i>		-0.7	-0.7	-0.7	0.0	0.0	0.0
Manufacture of beer, soft drinks and tobacco	327	104.1	104.1	104.1	104.1	104.1	104.1
Other than Food, Beverages and Tobacco	544	123.4	123.2	123.1	130.6	130.8	129.4
<i>% change, previous month</i>		-0.1	-0.2	0.0	4.5	0.2	-1.0
<i>% change, 12 months</i>		5.8	13.5	6.8	5.8	6.2	5.1
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	122.6	121.0	120.3	122.9	122.2	120.7
Manufacture of chemical products	172	117.1	117.1	117.1	121.2	121.7	117.3
Manufacture of plastic products, tubes, retreading and rebuilding of rubber tyres	45	121.0	119.7	119.8	136.4	137.8	139.8
Manufacture of ceramic products, cement, lime and articles of concrete	126	129.0	129.0	129.0	138.6	138.6	138.6
Manufacture of fabricated metal products	70	137.7	137.7	137.7	152.1	152.1	152.1
Manufacture of furniture	43	113.7	113.7	113.7	118.7	118.7	118.7

Source: Quarterly Producer Price Index Surve

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

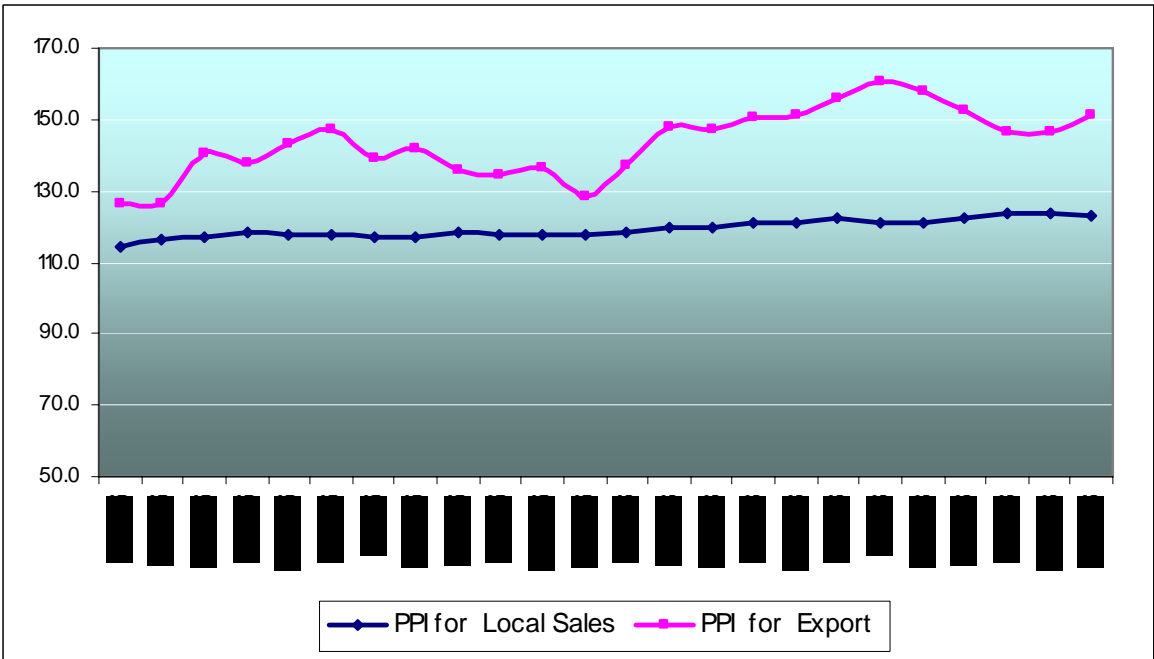
(Base Period: Fourth Quarter 2003 = 100)

Activity group	Weight	2005			2006		
		Oct.	Nov.	Dec.	Oct.	Nov.	Dec.
PPI for Mainly Export Products	1000	134.7	136.5	128.6	146.3	146.3	151.3
% change, previous month		-5.6	1.4	-5.8	-4.0	0.3	3.2
% change, 12 months		16.2	15.6	5.8	8.6	7.4	17.6
Manufacture of other food products n.e.c	978	135.5	137.4	129.4	147.5	147.9	152.6
% change, previous month		-1.1	1.4	-5.9	-4.0	0.3	3.2
% change, 12 months		16.6	17.6	6.0	8.9	7.6	18.0
Production of tea	585	98.3	93.1	96.8	108.0	106.3	114.3
Production of coffee	392	190.9	203.5	177.9	206.4	209.9	209.7
Manufacture of pesticides and other agro-chemical products	22	97.4	97.4	97.4	91.5	91.5	91.5
% change, previous month		0.0	0.0	0.0	-4.1	0.0	0.0
% change, 12 months		-4.1	34.5	-4.1	-6.0	-6.0	-6.0
Production of pyrethrum	22	97.4	97.4	97.4	91.5	91.5	91.5

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)

On annual average the PPI-M reached at 121.6 in 2006, that is an increase of 3.8% compared to the level reached in 2005 (117.1). During the last three months of the year 2006, Producer Price Index of the products manufactured for local sales which stood at 120.8 in September 2006, increased successively by 0.9% in October and 0.2% in November and then declined by 0.7% in December to reach at 123.2 (See table 1a).

On annual basis, the index increased by 4.9%, 5.3% and 4.8% in October, November and December respectively.

However, comparing the last month of the quarter under review (December 2006) with the corresponding month of the previous year (December 2005) the index was 4.8% higher.

Looking at the last twelve months, that is between December 2006 and December 2005, the index for «Manufacturing products» registered an increase mainly due to price increases in the subgroups: « Food products, Beverage and Tobacco» which rose from 110.8 to 115.8, that is 4.5% increase, and subgroup « Other than Food, Beverage and Tobacco» which moved from 123.1 to 129.4, that is an increase of 5.1% from December 2005 to December 2006.

During the last twelve months the index of subgroup « Food products, Beverage and Tobacco» experienced an increase in the subgroup « Food products» which increased by 13.5% of which: «Manufacture of sugar» (+25.0%), «Manufacture of grain mill and animal feeds products» (+13.8%), «Processing and preserving of fruits and vegetables» (+8.3%), «Production, processing and preserving of meat and meat products» (+6.7%) as a result of *increase in the cost of energy since when there is power cut off the establishments are forced to use generators which is costly, as well as increase of purchase price of imported raw materials.*

The price index for «Beverages and Tobacco» remained unchanged though the index for subgroup « Food products, Beverage and Tobacco» generally experienced an increase.

Index for subgroup « Other than Food, Beverages and Tobacco » moved upward due to the overall effect of price changes in the following groups: “Manufacture of plastic products, tubes, retreating and rebuilding of rubber tyres” (+16.7%) “Manufacture of fabricated metal products” (+10.5%), “Manufacture of ceramic products, cement, lime and articles of concrete” (+7.4%). While there was a decline in manufacture of chemical products by 0.1% due to reduction of duties on imported raw materials which brought down from 5% to 0%.

In other subgroups higher selling prices reflected the increase in the production cost, namely the higher prices paid for raw materials and energy.

1.2 PPI-M Exports (table 1b)

There was a mixed tendency in PPI-M for goods mainly produced for exports. The index which stood at 152.3 in September moved downward to reach at 146.3 in October and then rose successively to reach at 146.6 and 151.3 in November and December 2006 respectively, with an annual average of 150.4 in 2006 that is an increase of 10.2% compared to that of 2005 (136.5). Coffee exports registered an increase of 1.9% and 1.7% in October and November respectively, whereas December registered a slight decrease of 0.1%. On the other hand, export price index of tea registered a decline of 10.6% and 1.6% in October and November respectively while in December it increased by 7.6%. The price fluctuations for both coffee and tea are caused by price changes on the international market. During the last twelve months the index for December 2005 (128.6) compared to the index for December 2006 (151.3) was 17.6% higher. This increase was mainly attributable to higher prices fetched for tea and coffee with 18.1% and 17.9% respectively.

II. Analysis of trends- Quarterly Change

2.1 PPI-M Local sales

Comparing to the corresponding quarter of year 2005, the PPI-M fourth quarter for local sold products went up by 5.0% as it raised from 117.8 in the fourth quarter of year 2005 to reach at 123.7 in the fourth quarter of year 2006, whereas compared to the index of the previous quarter, the index of the Fourth quarter moved upward by 1.6%.

2.2 PPI-M Exports

In fourth quarter 2006 the index for manufacturing exports registered a decrease of 5.8% compared to the previous quarter. The annual quarterly change was 11.1%, as it rose from 133.3 in the fourth quarter of 2005 to reach at 148.0 in the fourth quarter of 2006. This increase is due to price rise by 14.0% and 9.4% 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.

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

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.