



NATIONAL INSTITUTE OF STATISTCS OF RWANDA

# PRODUCER PRICE INDEX FOR MANUFACTURING SECTOR (PPI-M) FIRST QUARTER 2008

# Background

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

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

Activity group	Weight		2007		2008		
		Jan.	Feb.	Mar.	Jan.	Feb.	Mar.
PPI for Mainly Local Sold products	1000	126.5	126.2	126.4	134.5	135.9	136.5
% change, previous month		2.7	-0.2	0.1	3.5	1.0	0.4
% change, 12 months Food Products, Beverages and		6.9	5.6	5.7	6.3	7.6	7.9
Tobacco	456	121.9	121.8	121.8	126.1	127.2	127.3
% change, previous month		5.4	-0.1	0.0	2.5	0.9	0.1
% change, 12 months		9.8	9.8	6.7	3.4	4.5	4.6
Food Products	129	144.4	143.8	143.8	153.3	157.1	157.3
% change, previous month		-0.5	-0.4	0.0	3.5	2.5	0.1
% change, 12 months		12.2	12.2	3.1	6.2	9.2	9.4
Production, processing and preserving of meat and meat products	3	166.8	166.8	166.8	175.7	175.7	175.7
Processing and preserving of fruits and vegetables	8	143.6	143.7	143.7	145.7	145.7	145.7
Manufacture of dairy products	32	139.1	139.1	139.1	155.7	155.7	155.7
Manufacture of grain mill and animal feeds products	27	127.8	127.3	128.0	155.7	156.4	156.8
Manufacture of bakery products, pastry, biscuits	13	129.3	129.3	129.1	186.4	186.3	186.3
Manufacture of sugar	45	161.1	159.8	159.4	140.3	150.8	151.1
Beverages and Tobacco	327	113.0	113.0	113.0	115.4	115.4	115.4
% change, previous month		8.6	0.0	0.0	2.0	0.0	0.1
% change, 12 months		8.6	8.6	8.6	2.0	2.0	2.1
Manufacture of beer, soft drinks and tobacco	327	113.0	113.0	113.0	115.4	115.4	115.4
Other than Food, Beverages and	544	130.4	130.0	130.3	141.6	143.2	144.1
Tobacco	544						
% change, previous month		0.7	-0.3	0.3	4.3	1.1	0.7
% change, 12 months		4.8	4.8	4.9	8.6	10.2	10.6
Manufacture of textiles, wearing apparel, tanning and dressing of leather	47	123.2	123.2	123.2	137.4	137.9	138.1
Manufacture of paper and paper products, publishing of books, newspapers	40	121.9	121.9	122.3	121.7	122.4	122.6
Manufacture of chemical products	172	117.8	117.5	117.5	136.1	138.2	138.2
Manufacture of plastic products, tubes, retreading and rebuilding of rubber tyres	45	139.1	134.0	137.0	139.8	142.8	142.8
Manufacture of ceramic products, cement, lime and articles of concrete	126	138.6	138.6	138.6	140.8	140.4	141.7
Manufacture of fabricated metal products	70	156.4	157.1	157.1	171.3	176.0	181.4
Manufacture of furniture	43	121.5	121.5	122.1	142.3	142.4	142.4

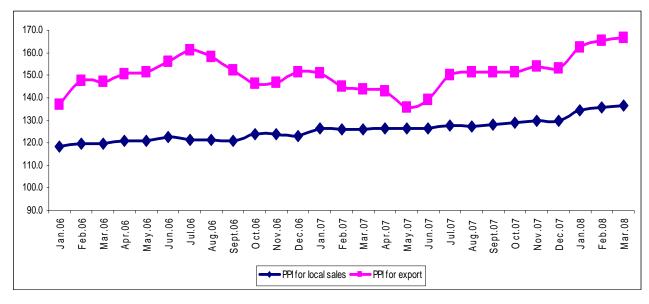
Source: Quarterly Producer Price Index Survey

Table 1b: Monthly Producer Price Indices by activity group: First Quarter 2008 Goods produced mainly for export (Base Period: Fourth Quarter 2003 = 100)

Activity group	Weight	2007			2008		
		Jan.	Feb.	Mar.	Jan.	Feb.	Mar.
PPI for Mainly Export Products	1000	150.6	145.0	143.9	162.2	165.4	166.5
% change, previous month		-0.4	-3.8	-0.7	5.9	2.0	0.7
% change, 12 months		9.9	-1.8	-2.2	7.6	14.1	15.7
Manufacture of other food products n.e.c	978	152.4	146.6	145.5	160.4	165.2	164.8
% change, previous month		-0.2	-3.8	-0.7	6.2	3.0	-0.2
% change, 12 months		10.5	-1.5	-1.8	5.3	12.7	13.3
Production of tea	585	115.7	104.4	104.0	123.5	131.5	126.3
% change, previous month		1.2	-9.8	-0.3	12.9	6.5	-4.0
% change, 12 months		10.1	-13.7	-12.8	6.7	25.9	21.4
Production of coffee	392	207.0	209.4	207.2	215.4	215.5	222.2
% change, previous month		-1.3	1.2	-1.1	1.0	0.0	3.1
% change, 12 months		8.1	3.1	17.9	4.1	2.9	7.2
Manufacture of pesticides and other agro-chemical products	22	74.5	74.5	74.5	240.5	173.4	240.5
% change, previous month		-18.6	0.0	0.0	0.0	-27.9	38.6
% change, 12 months		-23.4	-23.4	-23.4	222.9	132.9	222.9
Production of pyrethrum	22	74.5	74.5	74.5	240.5	173.4	240.5

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

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

#### 4.1. PPI-M: Local Sales (Table1a)

The Producer Price Index for manufacturing products destined to local sales has registered a slight increase of 0.4% in March 2008 compared to February 2008. This slight increase results from the stability of indices observed in food products (157.3 in March against 157.1 in February) and beverages and tobacco (115.4 in March against 115.4 in February). Indeed, the index for the food products, beverages and tobacco which stood at 123.0 in December 2007 rose by 126.1, 127.2 and 127.3 in January, February and March 2008 respectively. This is a monthly change of 2.5%, 0.9% and 0.1% respectively. On the other hand the index for Products other than food, beverages and tobacco which stood at 135.7 in December 2007 rose to reach at 141.6, 143.2 at 144.1 in January, February and march in 2008 respectively. This is an increase of 4.3%, 1.1% and 0.7% respectively (see table 1a).

During the last twelve months, that is from March 2007 to March 2008 the index for *sub-group* « Foods, beverage and tobacco » reached at 127.3 from 121.8, that is an increase of 4.6%. **The sub group** « Beverages and tobacco », rose by 2.1% in March 2008, whereas **sub group** « Foods products » were increased by 9.4%. This growth is a result in increase in the producer prices of the following sub groups: *Manufacture of bakery products (bread), pastry and biscuits (+44.3%), manufacture of grain milling and animal feeds (+22.5%), manufacture of dairy products (+11.9%) and production, transformation and conservation of meat and meat products (+5.3%). The main reasons for the increase in prices were: (i) higher prices of imported raw material and scarcity of raw material.* 

The producer Price Index for other manufacturing classified in the group« Other products than foods products, beverages and tobacco » increased by 10.6% as it rose from 130.3 in March 2007 to reach at 144.1 in March 2008. This rise is mainly attributed to increase in the price of sub group "chemical products (+17.6%), furniture (+16.6%), manufacture of metal products (+15.5%) and manufacture of textiles (+12.1%).

#### 4.2. IPP-M: Exports products

The Overall Producer Price Index-Manufacturing for the exports products which situated at 153.1 in December 2007 rose to reach at 162.2, 165.4 and 166.4 in January, February and March 2008 respectively. This is an increase of 5.9%, 2.0% and 0.7% respectively. Of which tea prices rose by 12.9% and 6.5% in January and February respectively while in March tea decreased by 4.0%. On the other hand coffee prices increased by 1.0% and 3.1% in January and March respectively while in February prices remained constant. On annual basis, that is compared March 2007 to March 2008 the

price of exported tea and coffee increased by 15.7% which is explained by 21.4% increase in the price of tea and 7.2% increase in the price of coffee.

#### II. Analysis of Quarterly Change

#### 2.1. PPI-M: Local sales products

The quarterly index for the local sold manufacturing products which situated at 126.4 in the first quarter of the year 2007 rose to reach at 135.6 in the first quarter of the year 2008. That is an increase of 7.5%. On quarterly basis the index rose by 4.6% when compared the first quarter of the year 2008 and the previous quarter as it increased from 129.6 to reach at 135.6.

### 2.2. PPI-M: Exports Products

The quarterly index for the manufacturing export products which situated at 146.5 in the first quarter of the year 2007 rose to reach at 164.7 in the first quarter of the year 2008. That is an increase of 12.4%. On quarterly basis the index rose by 7.8% when compared the first quarter of the year 2008 and the previous quarter as it increased from 152.8 to reach at 164.7.

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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 Ic = Index for current month

W<sub>i</sub> = 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.

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