### **REPUBLIC OF RWANDA**



# MINISTRY OF FINANCE AND ECONOMIC PLANNING NATIONAL INSTITUTE OF STATISTICS OF RWANDA

# CONSUMER PRICE INDEX (C.P.I.) Kigali – January 2007

### **CAUTION**

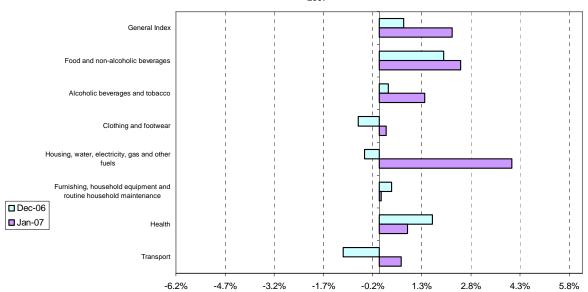
The National Institute of Statistics of Rwanda is very pleased to deliver to users the new Consumer Price Index (CPI) based in 2003 that replaces the previous one which was based in 1989. The Index is published every month by the 15th.

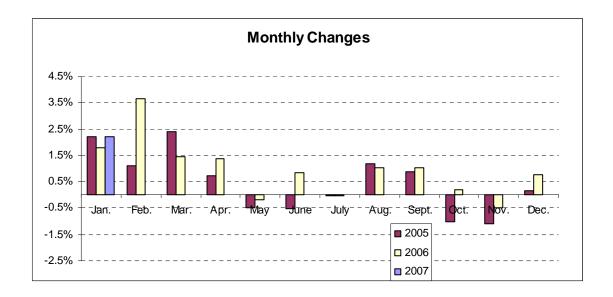
	Divisions		Indice	s for th	e follow	ing mo	nths:	Chan	ges in %	over
	❖ Groups	Weights	Jan 06	Oct 06	Nov 06	Dec 06	Jan 07	1 month	3 months	12 months
	GENERAL INDEX	10 000	124.4	136.5	135.9	136.9	139.9	2.22	2.49	12.50
01	Food and non-alcoholic beverages	3 709	127.7	149.9	148.5	151.4	155.1	2.49	3.48	21.46
0111	<ul> <li>Bread and cereals</li> </ul>	625	129.1	144.2	150.3	153.8	154.7	0.62	7.27	19.83
0112	❖ Meat	345	122.4	120.2	119.5	120.6	125.6	4.10	4.49	2.63
0113	❖ Fish	114	133.6	137.3	145.6	142.3	141.3	-0.72	2.88	5.71
0117	❖ Vegetables	1 332	126.9	171.4	163.7	167.8	176.5	5.17	2.95	39.06
012	Non-alcoholic beverages	180	123.3	125.7	125.6	125.1	125.9	0.59	0.13	2.13
02	Alcoholic beverages and tobacco	221	114.7	116.2	117.2	117.6	119.2	1.39	2.56	3.92
03	Clothing and footwear	500	105.4	106.0	105.3	105.5	105.8	0.25	-0.18	0.35
04	Housing, water, electricity, gas and other fuels	1 579	146.0	162.8	161.6	160.8	167.3	4.04	2.77	14.61
05	Furnishing, household equipment and routine household maintenance	764	118.7	116.9	116.7	117.2	117.2	0.06	0.34	-1.21
06	Health	708	106.3	107.5	108.0	109.8	110.7	0.86	2.98	4.12
07	Transport	987	114.3	122.9	122.9	121.6	122.4	0.67	-0.38	7.04
08	Communication	37	109.2	135.7	135.9	135.9	135.0	-0.70	-0.53	23.63
09	Recreation and culture	206	112.9	112.4	113.1	113.8	114.2	0.28	1.56	1.13
10	Education	432	139.5	139.5	139.5	139.5	139.5	0.00	0.00	0.00
11	Restaurants and hotels	273	113.3	125.3	126.1	125.6	128.9	2.65	2.89	13.81
12	Miscellaneous goods and services	584	109.5	109.6	109.7	109.7	109.4	-0.27	-0.11	-0.02

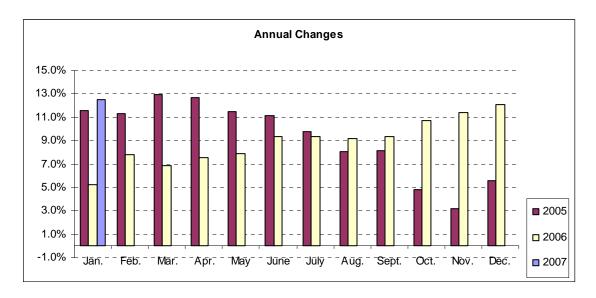
Month	Jan 06	Feb 06	Mar 06	Apr 06	May 06	June 06	July 06	Aug 06	Sept 06	Oct 06	Nov 06	Dec 06	Jan 06
Index (2003=100)	124.3	128.9	130.8	132.6	132.4	133.5	133.5	134.9	136.2	136.5	135.9	136.9	139.9
Annual changes	5.2	7.8	6.8	7.5	7.9	9.4	9.4	9.2	9.3	10.5	11.1	11.9	12.5

N.B: the price index for some categories has been slightly revised.









CONSUMER PRICE INDEX (CPI), JANUARY 2007 (Base 100 = 2003)

In January 2007, the Consumer Price Index increased by 2.2%. In January 2006, it had increased by 1.8%. The annual change in prices is 12.5%. It was 11.9% in December 2006.

The increase in the CPI for the month of January is mainly a result of a rise in the price index for « Food and non-alcoholic beverages » (+2.49%), «Alcoholic beverages and tobacco» (+1.39%), « Housing, water, electricity, gas and other fuels » (+4.04%) and « Restaurants and hotels » (+2.65%).

The 2.49% increase in the index for « Food products and non-alcoholic beverages » can be attributed to a rise in the price index for « Meat » (+4.10%) as well as a rise in the index for « Vegetables » (+5.17%): « Irish potatoes » (+19.0%), « Other vegetables (peanuts, peas, carrots, tomatoes, onions, and so on) » (+2.8%), « Sweet potatoes » (+13.8%) and « Cassava » (+8.7%).

Over the last twelve months, the rate of inflation is 9.5%.

**The annual change of 12.5%** in the Consumer Price Index was caused, among other things, by the strong increases in prices, ranging from 13.81% to 23.63%, for « Food and non-alcoholic beverages » (+21.46%), « Housing, water, electricity, gas and other fuels » (+14.61%), «Communication» (+23.63%) and « Hotels and restaurants » (+13.81%), and also to slight increases in price indices, ranging from 1.13% to 7.04%, for categories not mentioned above.

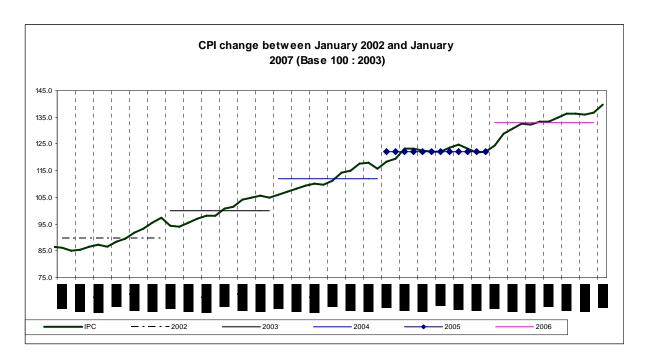
The price index for « Local products » registered an increase of 3.78% that resulted from an increase in the price index for « Food products and non-alcoholic beverages » (+3.17%) and that for « Housing, water, electricity, gas and other fuels » (+4.30%). The index for « Imported products » slightly increased by 0.65%, following a rise of the index for imported « Food products and non-alcoholic beverages » (+0.90%).

The price index for « Fresh products » rose by 3.31% whereas the index for « Energy » fell by 0.92%. The « General index excluding fresh products and energy » increased by 2.39%.

Evolution of the rate of inflation<sup>(1)</sup> (in %)

									,				
MONTH	Jan 06	Feb 06	Mar 06	Apr 06	May 06	June 06	July 06	August 06	Sept. 06	Oct. 06	Nov. 06	Dec. 06	Jan. 07
Evolution over 12 months	8.6	8.3	7.8	7.4	7.1	7.0	7.0	7.1	7.2	7.7	8.3	8.9	9.5

In January 2007 the average index of the last twelve months (February 2006 to January 2007) increased by 9.5% compared to the average index of the previous twelve months (February 2005 to January 2006)



### Other indices

	Weights		Indices for	the following	ng months:		Char	nges in %	over:
	•	Jan-06	Oct-06	Nov-06	Dec-06	Jan-07	1 month	3 months	12 months
General Index	10 000	124.4	136.5	135.9	136.9	139.9	2.22	2.49	12.50
Local Goods Index	6 956	127.7	142.0	140.7	142.1	147.4	3.78	3.84	15.44
Food and non-alcoholic beverages	2 627	128.9	156.2	153.4	157.0	162.0	3.17	3.69	25.69
Housing, water, electricity, gas and other fuels	1 501	145.3	161.2	159.8	159.0	165.8	4.30	2.85	14.15
Transport	698	106.0	115.8	115.7	114.0	113.8	-0.11	-1.68	7.41
Imported Goods Index	3 044	118.8	123.2	123.9	124.1	124.9	0.65	1.41	5.19
Food and non-alcoholic beverages	1 082	125.7	134.1	135.7	137.1	138.3	0.90	3.13	9.98
Furnishing, household equipment	533	115.7	115.5	115.8	115.6	114.4	-1.04	-0.93	-1.11
Transport	289	133.8	139.5	139.8	139.8	142.6	2.01	2.25	6.60
Kigali Index	7 679	123.0	134.7	134.0	134.7	137.1	1.79	1.81	11.47
Provinces Index <sup>(2)</sup>	2 321	129.1	142.6	142.0	144.2	149.5	3.67	4.82	15.79
Fresh Products <sup>(3)</sup> index	2 186	127.8	160.9	158.3	162.4	167.7	3.31	4.23	31.28
Energy index	761	195.8	229.1	226.3	223.8	221.7	-0.92	-3.22	13.23
General Index excluding fresh Products and energy <sup>(4)</sup>	7 053	115.6	119.0	119.1	119.6	122.5	2.39	2.94	5.95

<sup>(2)</sup> This is the index for the country without Kigali

<sup>(3)</sup> Fresh products are food products which have seasonal fluctuations

<sup>(4)</sup> Proxy for underlying inflation

# **Analysis of Inflation**

Shown below are tables and diagrams that detail trends in underlying inflation as well as imported inflation. From these tables, it is clear that core inflation and imported inflation have been decreasing in recent years.

# **Underlying Inflation**

	Jan-05	Feb-05	Mar-05	Apr-05	May-05	Jun-05	Jul-05	Aug-05	Sep-05	Oct-05	Nov-05	Dec-05
General index excluding fresh products												
and energy	111.5	111.9	112.6	112.6	114.2	113.6	113.4	113.7	113.9	113.7	113.6	113.6
Monthly change (in %)	1.05	0.33	0.61	0.00	1.39	-0.51	-0.19	0.31	0.14	-0.18	-0.04	-0.01
Annual underlying inflation rate (in %) <sup>(1)</sup>	7.5	7.4	7.3	7.2	7.2	7.1	7.0	6.8	6.5	6.2	5.9	5.5

	Jan- 06	Feb- 06	Mar- 06	Apr- 06	May- 06	Jun- 06	Jul-06	Aug- 06	Sep- 06	Oct- 06	Nov- 06	Dec- 06
Conoraliaday	00	00	00	00	00	00	Jui-00	00	00	00	00	00
General index												
excluding												
fresh products												
and energy	115.6	115.9	116.2	116.8	116.8	117.4	117.6	117.7	119.0	118.9	118.9	119.4
Monthly												
change (in %)	1.73	0.28	0.29	0.47	0.04	0.46	0.16	0.09	1.16	-0.12	-0.02	0.49
Annual												
underlying												
inflation rate												
(in %) <sup>(1)</sup>	5.2	4.9	4.7	4.5	4.1	3.8	3.7	3.6	3.6	3.6	3.6	3.8

	Jan-07
General index	
excluding	
fresh products	
and energy	122.5
Monthly	
change (in %)	2.40
Annual	
underlying	
inflation rate	4.1
(in %) <sup>(1)</sup>	
(a) I I	

<sup>(2)</sup> In January 2007 the average index of the last twelve months (February 2006 to January 2007) increased by 4.1% compared to the average index of the previous twelve months (February 2006 to January 2006)

## **Imported Inflation**

Imported products index	117.9	117.8	118.0	118.8	121.1	120.3	119.1	119.8	120.5	119.2	118.6	118.7
iliuex	117.9	117.0	110.0	110.0	121.1	120.3	119.1	119.0	120.5	119.2	110.0	110.7
Monthly												
change (in %)	1.14	-0.08	0.13	0.70	1.90	-0.65	-0.95	0.58	0.53	-1.03	-0.56	0.08

	06 0	06   06	06	06	Jun- 06	Jul-06	Aug- 06	Sep- 06	Oct- 06	Nov- 06	Dec- 06
Imported products											
index	118.7 1	119.2 120.7	121.9	123.1	123.4	123.7	124.1	123.8	123.0	123.8	124.0
Monthly change (in %)	0.07	0.39 1.27	0.98	0.95	0.25	0.27	0.30	-0.21	-0.62	0.59	0.18
Annual imported inflation rate (in %) (2)	6.6	E 9 E 2	4.6	2.0	2.2	2.0	2.0	2.4	2.4	2.5	2.8
inflation rate	6.6	5.8 5.2	4.6	3.8		3.3	3.3 3.0	3.3 3.0 2.8	3.3 3.0 2.8 2.4	3.3 3.0 2.8 2.4 2.4	3.3 3.0 2.8 2.4 2.4 2.5

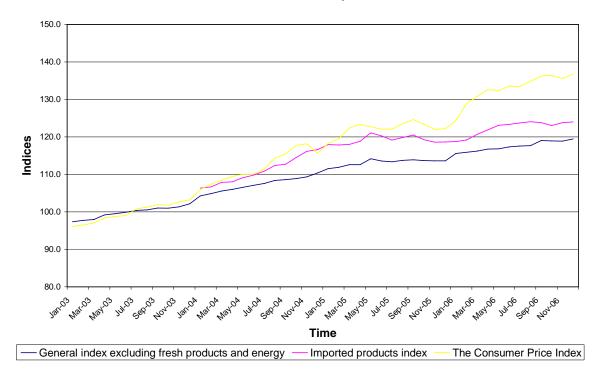
	Jan-07
Imported	
products index	124.9
Monthly	
change	0.65
Annual	
imported	
inflation	3.2
rate(in %) <sup>(2)</sup>	

<sup>(3)</sup> In January 2007 the average index of the last twelve months (February 2006 to January 2007) increased by 3.2% compared to the average index of the previous twelve months (February 2006 to January 2006)

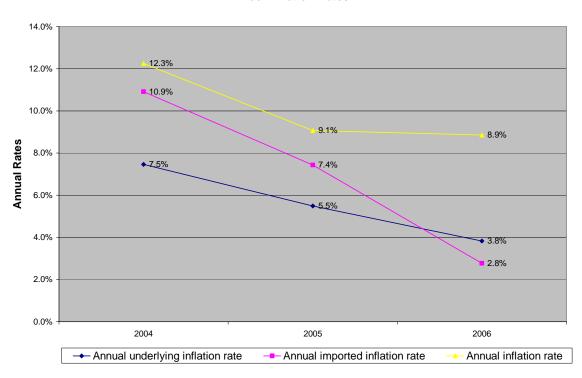
# Comparison of the CPI with Core Inflation and Inflation from Abroad

Year	2004	2005	2006
General Index Excluding Fresh Products and Energy	107.3	113.2	117.5
Imported Products Index	110.9	119.2	122.5
CPI	111.95	122.1 6	133.0
Annual core inflation rate	7.3%	5.5%	3.8%
Annual imported inflation rate	10.9%	7.4%	2.8%
Annual inflation rate	11.95%	9.12%	8.9%

### Inflation, Core Inflation and Imported Inflation



#### **Annual Inflation Rates**

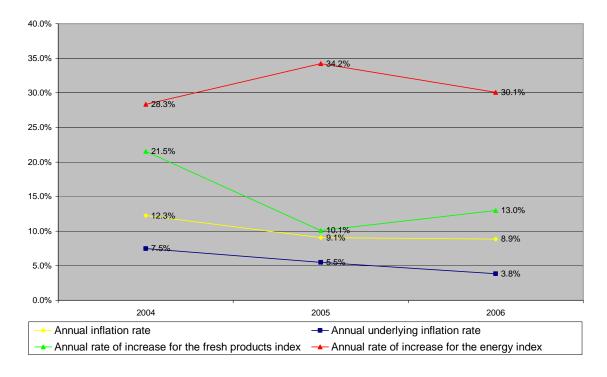


Prices in the past three years have increased but at a slower rate. Most notably, the rate of change of the

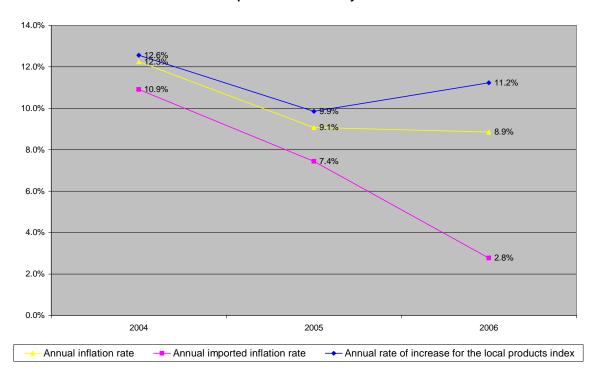
imported products index decreased most sharply; from 10.9% in 2004 to only 2.8% in 2006. Also, core inflation, calculated by removing fresh products and energy from the basket of goods and services, shows an important downward trend since 2004. It stands at a rate of only 3.8% in 2006, which is a quite remarkable achievement. The CPI, on its part, did not really experience the same trends as did the imported products index and underlying inflation. However, it too has increased at a decreasing rate in the past three years. Nonetheless, its rate of increase (the inflation rate for the country) has undergone a somewhat mild downward trend. Indeed, the inflation rate had a value of 12.3% in 2004 and it was equal to 8.9% in 2006, which is not a big difference if we compare this evolution with trends in core inflation or inflation from abroad.

When analyzing underlying inflation and imported inflation in more details, some important features become apparent. The following figures illustrate these aspects.

#### **Core Inflation Analysis**



#### **Imported Inflation Analysis**



Food and energy are largely responsible for the high rates of inflation observed in the past three years. Indeed, these categories have registered extremely high rates of increase since the year 2004. These rates have been every time greater than the inflation rate of the corresponding period. Not surprisingly, underlying inflation has been reasonably low since 2004; at least its trend is showing encouraging signs. In light of this, monetary policy from the National Bank of Rwanda seems not to be responsible for the rates of inflation seen in recent years. With a weight of about 30% of the basket of goods and services that make up the sample for the Consumer Price Index, the increase in the prices of energy and food products (mostly those that are produced locally) have led to high rates of inflation. Any policy meant to decrease the inflation rate should target mainly these two items.

It is also clear that local products of different kinds constitute the major cause of inflation in Rwanda; at least in recent times (see figure entitled "Imported inflation analysis"). Indeed, the annual rates of increase of locally produced items are greater than the inflation rate. Furthermore, for the same time period, rates of increase of products made abroad are much lower. In addition, products (and services) made in Rwanda make up about 70% of all goods and services consumed in the country. This points to the fact that the inflation observed in recent years does not come from foreign countries. Therefore, any foreign trade policy or exchange rate policy aimed at decreasing the inflation rate via a reduction of the level of imports would not be very helpful. Likewise, reducing import duties so as to decrease the price of imported products does not seem to be effective either. Instead, it is the local industry that ought to be targeted. A further concern is that domestically made products are fast becoming less competitive with time. Indeed, the rate of increase of the local products index becomes greater than the rate of increase of the imported products index each month (i.e. the distance between the two curves becomes larger). This might have an adverse effect on terms of trade, the balance of payments and international trade in general.

On a more positive note, a worldwide study on Purchasing Power Parity<sup>1</sup> found that Rwanda is ranked

<sup>&</sup>lt;sup>1</sup> The study was undertaken by the World Bank in cooperation with the Africa Development Bank in the framework of the International Comparison Program.

among the countries where the price level is lowest across the African continent. Indeed, with a price level index of 1.00 for the whole of Africa, Rwanda's index stands at only 0.89 for the year 2005. Therefore, prices in 2005 were 11% lower in Rwanda when compared to the African average. Indices for almost all other African countries vary between 0.62 and 3.68. From among 44 African countries studied, Rwanda is ranked as the seventh with the lowest index. An important implication of this is that even though the imported products index in our CPI has registered rates of increase that have been lower since 2004, products imported from African countries may very well not be an important factor in these decreasing rates. As a result, it is very likely that products imported from outside Africa have played a major role in reducing the rate of increase of the imported products index since 2004. It is true that the preliminary results of the study are only relevant for the year 2005. But because the trends observed today as far as Rwandan inflation is concerned are a continuation of the situation in 2005, it is possible to draw conclusions based on these results. As a matter of fact, trends in Rwandan inflation have not undergone any drastic change since 2005. Final results of the study on global Purchasing Power Parities are due in December 2007.

#### **METHODOLOGICAL NOTICE**

The Consumer Price Index is a Laspeyres index that covers household consumption as it is used by national accounts. The reference population for the CPI consists in all the households living in the urban areas in Rwanda.

The housewife basket includes 438 products observed in many places spread all over the administrative centers of all the provinces in Rwanda. All kinds of places of observation are selected: shops, markets, services, etc. More than 25,000 prices are collected every month by enumerators of the Department of Statistics and of the National Bank of Rwanda.

The base year for the CPI is the year 2003.

The weights used for this new index are the results of the Household Living Conditions Survey (EICV) conducted in 2000-2001 with a sample of 6,450 households.

The splicing with the old index is feasible using the splicing coefficient of 3.889. If you divide the old index by this coefficient, you will be able to make comparisons with the new index based in 2003.

Additional methodological documentation can be obtained at the National Institute of Statistics of Rwanda, Economic Statistics Department.

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