



REPUBLIC OF RWANDA



# CONSUMER PRICE INDEX (CPI)

## OCTOBER 2017

10 November 2017

## 1. Summary

This is the monthly publication of the Consumer Price Index (CPI) for the month of October 2017. The Urban CPI will be the focus of the publication as it is the headline index for monetary policy purposes.

### 1.1. Urban Index

The Urban CPI increased by 3.6 percent on annual basis and increased by 1.2 percent on a monthly basis. The annual average rate between October 2017 and October 2016 is 5.8 percent.

### 1.2. Rural Index

The Rural CPI increased by 6.3 percent on an annual basis, and increased by 1.5 percent on a monthly basis.

### 1.3. Overall Rwanda Index

The Rwanda CPI increased by 5.3 percent on an annual basis, and increased by 1.4 percent on a monthly basis.

	2016			2017									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.
Urban CPI Annual change	7.4	6.4	7.3	7.4	8.1	7.7	7.3	6.5	4.8	3.5	3.2	3.8	3.6
Rural CPI Annual change	10.0	10.6	13.0	14.5	16.2	15.7	15.9	14.5	11.8	10.5	9.4	8.9	6.3
Rwanda CPI Annual change	9.1	9.1	11.0	12.0	13.4	13.0	12.9	11.7	9.4	8.1	7.2	7.1	5.3
Urban CPI Monthly change	1.4	0.1	0.3	-0.4	1.1	0.6	0.4	-0.2	-0.8	-0.1	0.2	1.1	1.2
Rural CPI Monthly change	4.0	0.7	-0.5	-0.3	2.3	1.5	0.7	-1.4	-1.2	0.1	0.9	1.9	1.5
Rwanda CPI Monthly change	3.1	0.5	-0.2	-0.3	1.9	1.2	0.6	-1.0	-1.0	0.0	0.6	1.5	1.4

Source: NISR

## 2. Urban Consumer Price Index

The Urban Consumer Price Index is calculated based on approximately 1622 products in twelve urban centres of Rwanda. The table below shows the monthly and annual change in October 2017 for the main categories of the urban index.

Code	Categories	Weights	Percentage change in Oct. 2017	
			on Sep. 2017	on Oct. 2016
	<b>GENERAL INDEX</b>	<b>100%</b>	<b>1.2%</b>	<b>3.6%</b>
01	Food and non-alcoholic beverages	27%	2.9%	6.4%
01.1.1	Bread and cereals	5%	1.3%	8.3%
01.1.2	Meat	2%	0.3%	0.1%
01.1.4	Milk cheese and eggs	1%	4.7%	11.0%
01.1.7	Vegetables	9%	3.6%	7.8%
01.2	Non-alcoholic beverages	1%	-0.3%	2.8%
02	Alcoholic beverages tobacco and narcotics	5%	0.1%	9.4%
03	Clothing and footwear	5%	0.7%	3.8%
04	Housing water, electricity, gas and other fuels	21%	0.3%	2.4%
05	Furnishings household equipment and routine household maintenance	4%	0.1%	1.4%
06	Health	1%	-0.2%	6.3%
07	Transport	12%	0.7%	3.3%
08	Communication	3%	0.0%	-2.5%
09	Recreation and culture	3%	4.5%	5.4%
10	Education	3%	0.0%	-1.4%
11	Restaurants and hotels	9%	0.1%	-2.1%
12	Miscellaneous goods and services	6%	0.1%	3.9%

Source: NISR

The Urban CPI increased by 3.6 percent in October 2017 compared to the same month of the previous year. This is mainly due to the rising prices of 'Food and non-alcoholic beverages' 6.4 percent, Housing water, electricity, gas and other fuels' 2.4 percent and Transport 3.3 percent.

The monthly CPI increased by 1.2 percent in October 2017. This is mainly due to 'Food and non-alcoholic beverages' which increased by 2.9 percent.

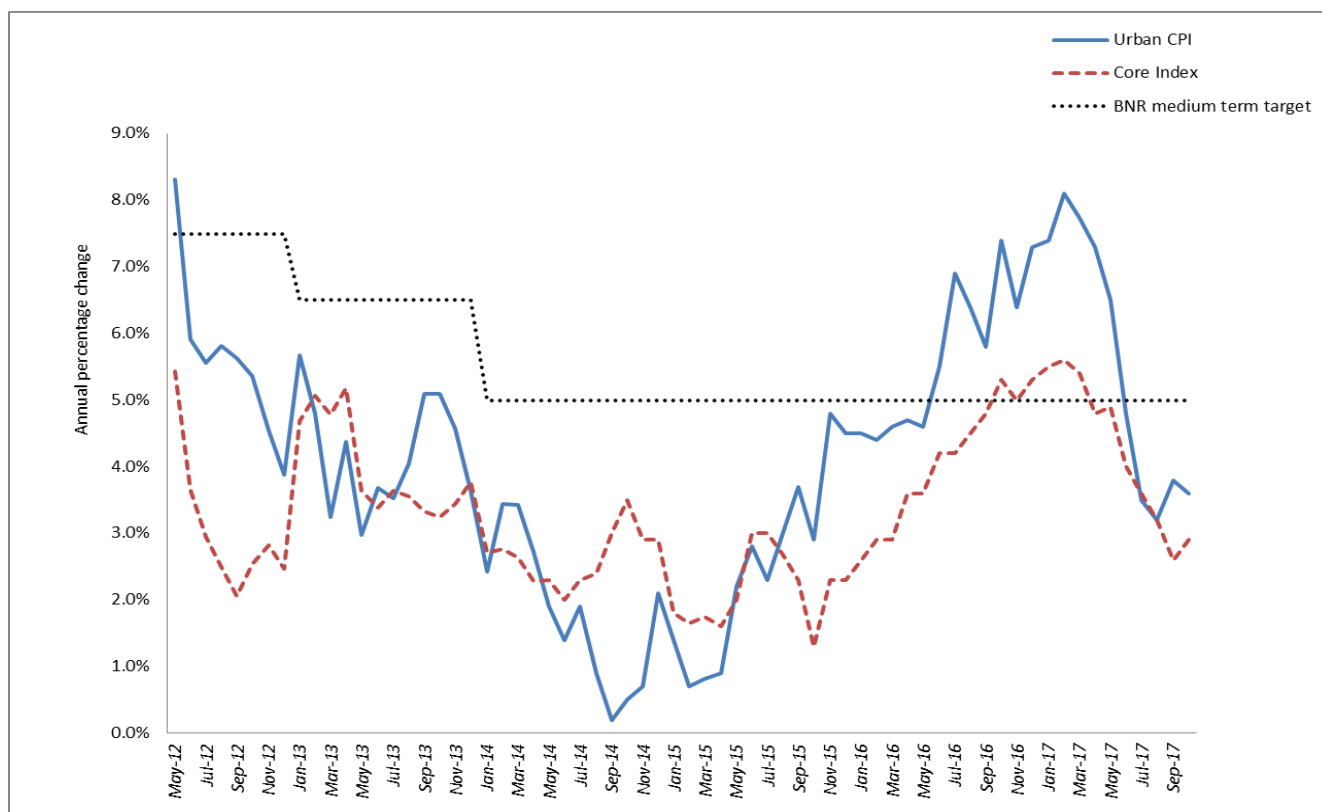
The underlying inflation rate (excluding fresh food and energy) increased by 0.5 percent when compared to September 2017 and increased by 2.9 percent when compared to October 2016 (See Table 4).

The annual average rate between October 2017 and October 2016 is 5.8 percent. The annual average underlying inflation rate is 4.4 percent.

	2016			2017									
	Oct.	Nov.	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.
General index	5.4	5.5	5.7	6.0	6.3	6.5	6.7	6.9	6.8	6.5	6.3	6.1	5.8
Core / Underlying index	3.6	3.8	4.1	4.3	4.5	4.7	4.8	5.0	4.9	4.9	4.8	4.6	4.4

Source: NISR

**Figure 1: Annual changes in urban CPI (May 2012 – October 2017)**



### 3. Other selected urban indices

In this section, we present five selected urban indices - the local goods index, the imported goods index, the fresh products index, the energy index and the core index.

On an annual basis, the local goods index increased by 3.1 percent, the imported goods index increased by 5.3 percent, the fresh products index increased by 5.5 percent, the energy index increased by 7.1 percent and the core index or the general index excluding fresh products and energy increased by 2.9 percent.

On a monthly basis, the local goods index increased by 1.1 percent; the imported goods index increased by 1.5 percent, the fresh products index increased by 4.3 percent, the energy index increased by 0.8 percent and the core index increased by 0.5 percent.

Categories	Weights	Percentage change in Oct. 2017	
		on Sep. 2017	on Oct. 2016
<b>GENERAL INDEX</b>	<b>100%</b>	<b>1.2%</b>	<b>3.6%</b>
<b>Local Goods Index</b>	<b>77%</b>	<b>1.1%</b>	<b>3.1%</b>
Food and non-alcoholic beverages	21%	3.2%	6.6%
Housing, water, electricity, gas and other fuels	21%	0.3%	2.4%
Transport	6%	0.1%	0.2%
<b>Imported Goods Index</b>	<b>23%</b>	<b>1.5%</b>	<b>5.3%</b>
Food and non-alcoholic beverages	7%	1.6%	6.1%
Furnishing, household equipment	2%	0.2%	-0.4%
Transport	6%	1.3%	5.7%
<b>Fresh Products index<sup>1</sup></b>	<b>16%</b>	<b>4.3%</b>	<b>5.5%</b>
<b>Energy index</b>	<b>7%</b>	<b>0.8%</b>	<b>7.1%</b>
<b>General Index excluding fresh Products and energy<sup>2</sup></b>	<b>77%</b>	<b>0.5%</b>	<b>2.9%</b>

*Source: NISR*

(1) Fresh products are food products which have seasonal fluctuations

(2) Proxy for underlying inflation

#### 4. Methodological notice

The Consumer Price Index (CPI) is a measure of the average change over time of goods and services purchased by households. The CPI uses a Modified Laspeyres formula to calculate the index. The reference population for the CPI consists of all households, urban and rural in Rwanda.

The household basket includes 1,622 products sold in many places spread all over the country. A variety of places of observation are selected: shops, markets, hospitals, schools etc. More than 29,482 prices in urban areas and 10,744 in rural areas are collected every month.

The weights used for the index are from the result of the Household Living Conditions Survey (EICV4) conducted in 2013-2014 with a sample of 14,419 households.

Each month, NISR publishes the All Rwanda index, All Urban index and All Rural index. The Urban CPI is considered as the headline index for monetary policy purposes. In addition, select detailed item indices are published for items judged to be important or experiencing extreme price movement.

## Main terms used in Rwandan CPI

**General index:** The highest level of aggregation of a CPI which covers all the items within the scope of the CPI

**Core (underlying) inflation:** A type of CPI which shows the underlying trend in inflation by excluding those movements which arise from transient factors such as seasonality or other short term price volatility

**Index reference period (Feb 2014=100):** The period with which all other periods are compared (the period for which the value of the CPI is set at 100).

**Monthly inflation:** Compare the current index number compared with the index number of the previous month

**Annual inflation:** Compare the index number for a particular month with the index number for the same month of the previous year

**Annual average inflation:** Compare the average of all the monthly indices in a particular year with the corresponding average for the previous year. Any twelve month average (eg. from July 2016 to June 2017) may be compared with the twelve month average (also from July 2015 to June 2016) in order to calculate June 2017 inflation rate.

### 4.1. How to Interpret the CPI

Movements of the indices from one month to another usually are expressed as percentage changes rather than changes in index points. The level of the index (relative to its base period) affects index point changes, but it does not affect percent changes.

The following example illustrates how to calculate percentage changes:

#### *Index point change*

CPI	178
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Less CPI for previous period 176

Equals index point change	2
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#### *Percent change*

Index point difference	2
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Divided by the previous index	176
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Equals	0.011
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Results multiplied by 100	$0.011 \times 100$
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Equals percent change	1.1
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## 6. Annexes: Reference Tables

<b>Annex 1: Consumer Price Index, Urban</b>									
Code	Categories	Weights	Index (Feb 2014=100)			Percentage change in Oct. 2017		Contributions <sup>1</sup> :	
			Oct-16	Sep-17	Oct-17	on Sep. 2017	on Oct. 2016	1 month	12 months
	<b>GENERAL INDEX</b>	100%	112.5	115.1	<b>116.5</b>	<b>1.2%</b>	<b>3.6%</b>	<b>1.2%</b>	<b>3.6%</b>
01	Food and non-alcoholic beverages	27%	126.1	130.4	<b>134.2</b>	2.9%	6.4%	0.9	2.0
01.1.1	Bread and cereals	5%	112.4	120.2	<b>121.7</b>	1.3%	8.3%	0.1	0.4
01.1.2	Meat	2%	110.6	110.3	<b>110.7</b>	0.3%	0.1%	0.0	0.0
01.1.4	Milk cheese and eggs	1%	107.2	113.6	<b>118.9</b>	4.7%	11.0%	0.1	0.2
01.1.7	Vegetables	9%	148.7	154.7	<b>160.2</b>	3.6%	7.8%	0.4	0.8
01.2	Non-alcoholic beverages	1%	114.5	118.1	<b>117.7</b>	-0.3%	2.8%	0.0	0.0
02	Alcoholic beverages tobacco and narcotics	5%	113.1	123.6	<b>123.7</b>	0.1%	9.4%	0.0	0.3
03	Clothing and footwear	5%	107.8	111.1	<b>111.8</b>	0.7%	3.8%	0.0	0.2
04	Housing water, electricity, gas and other fuels	21%	108.0	110.3	<b>110.6</b>	0.3%	2.4%	0.1	0.5
05	Furnishings household equipment and routine household maintenance	4%	107.4	108.8	<b>109.0</b>	0.1%	1.4%	0.0	0.1
06	Health	1%	100.8	107.3	<b>107.1</b>	-0.2%	6.3%	0.0	0.1
07	Transport	12%	106.2	109.0	<b>109.7</b>	0.7%	3.3%	0.1	0.5
08	Communication	3%	108.5	105.8	<b>105.8</b>	0.0%	-2.5%	0.0	-0.1
09	Recreation and culture	3%	111.5	112.5	<b>117.6</b>	4.5%	5.4%	0.1	0.2
10	Education	3%	102.8	101.4	<b>101.4</b>	0.0%	-1.4%	0.0	-0.1
11	Restaurants and hotels	9%	107.8	105.5	<b>105.6</b>	0.1%	-2.1%	0.0	-0.1
12	Miscellaneous goods and services	6%	104.6	108.6	<b>108.7</b>	0.1%	3.9%	0.0	0.1

Source: NISR

(1) "Contributions" take into account both the growth rate and the relative weight of each category to explain the percentage change observed.

**Annex 2: Consumer Price Index, Rural**

Code	Categories	Weights	Index (Feb 2014=100)			Percentage change in Oct. 2017		Contributions <sup>1</sup> :	
			Oct-16	Sep-17	Oct-17	on Sep. 2017	on Oct. 2016	1 month	12 months
	<b>GENERAL INDEX</b>	100%	121.6	127.4	<b>129.3</b>	<b>1.5%</b>	<b>6.3%</b>	<b>1.5%</b>	<b>6.3%</b>
01	Food and non-alcoholic beverages	48%	136.9	142.5	<b>144.8</b>	1.6%	5.7%	0.9	3.3
01.1.1	Bread and cereals	8%	118.1	134.2	<b>136.2</b>	1.5%	15.3%	0.1	1.0
01.1.2	Meat	2%	115.8	114.3	<b>114.0</b>	-0.2%	-1.6%	0.0	0.0
01.1.4	Milk cheese and eggs	1%	105.9	108.5	<b>109.0</b>	0.5%	3.0%	0.0	0.0
01.1.7	Vegetables	26%	154.7	156.7	<b>159.4</b>	1.7%	3.0%	0.5	0.7
01.2	Non-alcoholic beverages	1%	108.8	109.7	<b>111.0</b>	1.1%	2.0%	0.0	0.0
02	Alcoholic beverages tobacco and narcotics	8%	112.8	115.7	<b>117.4</b>	1.5%	4.2%	0.1	0.1
03	Clothing and footwear	5%	105.5	111.6	<b>112.0</b>	0.4%	6.2%	0.0	0.3
04	Housing water, electricity, gas and other fuels	16%	103.0	108.7	<b>112.4</b>	3.4%	9.1%	0.5	1.2
05	Furnishings household equipment and routine household maintenance	3%	104.2	106.2	<b>106.1</b>	-0.1%	1.8%	0.0	0.1
06	Health	1%	102.6	105.7	<b>105.7</b>	0.0%	2.9%	0.0	0.0
07	Transport	4%	99.9	101.3	<b>101.3</b>	0.0%	1.5%	0.0	0.1
08	Communication	2%	100.0	100.0	<b>100.0</b>	0.0%	0.0%	0.0	0.0
09	Recreation and culture	1%	102.6	107.5	<b>107.5</b>	0.0%	4.8%	0.0	0.0
10	Education	1%	108.2	163.9	<b>163.9</b>	0.0%	51.5%	0.0	1.2
11	Restaurants and hotels	5%	105.2	112.8	<b>112.7</b>	-0.1%	7.2%	0.0	0.2
12	Miscellaneous goods and services	4%	107.8	102.7	<b>102.8</b>	0.1%	-4.7%	0.0	-0.2

Source: NISR

(1) "Contributions" take into account both the growth rate and the relative weight of each category to explain the percentage change observed.



### Annex 3: Consumer Price Index, All Rwanda

Code	Categories	Weights	Index (Feb 2014=100)			Percentage change in Oct. 2017		Contributions <sup>1</sup> :	
			Oct-16	Sep-17	Oct-17	on Sep. 2017	on Oct. 2016	1 month	12 months
<b>00</b>	<b>GENERAL INDEX</b>	100%	118.4	122.9	<b>124.6</b>	<b>1.4%</b>	<b>5.3%</b>	<b>1.4%</b>	<b>5.3%</b>
01	Food and non-alcoholic beverages	39%	134.5	139.8	<b>142.6</b>	2.0%	6.0%	0.9	2.8
01.1.1	Bread and cereals	7%	116.4	130.5	<b>132.4</b>	1.4%	13.7%	0.1	0.9
01.1.2	Meat	2%	113.7	112.7	<b>112.7</b>	0.0%	-0.9%	0.0	0.0
01.1.4	Milk cheese and eggs	1%	106.4	110.8	<b>113.9</b>	2.7%	7.0%	0.0	0.1
01.1.7	Vegetables	18%	153.8	156.5	<b>159.8</b>	2.1%	3.9%	0.5	0.7
01.2	Non-alcoholic beverages	1%	111.2	113.5	<b>114.0</b>	0.4%	2.5%	0.0	0.0
02	Alcoholic beverages tobacco and narcotics	7%	112.8	117.9	<b>119.1</b>	1.0%	5.6%	0.1	0.2
03	Clothing and footwear	5%	106.2	111.3	<b>111.8</b>	0.5%	5.3%	0.0	0.2
04	Housing water, electricity, gas and other fuels	18%	105.0	108.7	<b>110.7</b>	1.9%	5.4%	0.3	0.8
05	Furnishings household equipment and routine household maintenance	3%	105.5	107.3	<b>107.3</b>	0.0%	1.7%	0.0	0.1
06	Health	1%	101.7	106.5	<b>106.4</b>	-0.1%	4.6%	0.0	0.0
07	Transport	8%	103.9	106.2	<b>106.7</b>	0.5%	2.7%	0.0	0.2
08	Communication	2%	104.0	102.4	<b>102.4</b>	0.0%	-1.5%	0.0	0.0
09	Recreation and culture	2%	107.6	110.3	<b>113.4</b>	2.8%	5.4%	0.1	0.1
10	Education	2%	105.2	129.4	<b>129.4</b>	0.0%	23.0%	0.0	0.8
11	Restaurants and hotels	6%	106.5	109.2	<b>109.3</b>	0.0%	2.7%	0.0	0.1
12	Miscellaneous goods and services	5%	106.4	105.5	<b>105.6</b>	0.1%	-0.8%	0.0	-0.1

Source: NISR

(1) "Contributions" take into account both the growth rate and the relative weight of each category to explain the percentage change observed.

## Contacts:

National Institute of Statistics of Rwanda (NISR),  
P.O. BOX 6139 Kigali,  
Tel.: (250) 571035 Fax: (250) 570705.  
Web site: [www.statistics.gov.rw](http://www.statistics.gov.rw) /CPI Indexes

### Publication Directors:

MURANGWA Yusuf, Director General, NISR; [yusuf.murangwa@statistics.gov.rw](mailto:yusuf.murangwa@statistics.gov.rw),

MURENZI Ivan, Deputy Director General, NISR; [ivan.murenzi@statistics.gov.rw](mailto:ivan.murenzi@statistics.gov.rw),

SIBOMANA Oscar, Ag. Director of Economic Statistics Department, NISR;

[oscar.sibomana@statistics.gov.rw](mailto:oscar.sibomana@statistics.gov.rw),

MUTETIJABIRO Lucie, Price Statistics Research Statistician Team Leader, NISR;

[lucie.mutetijabiro@statistics.gov.rw](mailto:lucie.mutetijabiro@statistics.gov.rw).