REPUBLIC OF RWANDA

CONSUMER PRICE INDEX (CPI)

DECEMBER 2019

10 January 2020

National Institute of Statistics of Rwanda

1. Summary

This is the monthly publication of the Consumer Price Index (CPI) for the month of December 2019. Urban CPI will be the focus of this publication as it is the headline index for monetary policy purposes.

1.1. Urban Index

Urban CPI increased by 6.7 percent on annual basis (December 2019 to December 2018) and decreased by 0.3 percent on monthly basis (December to November 2019). The annual average inflation rate between December 2019 and December 2018 was 2.4 percent.

1.2. Rural Index

Rural CPI increased by 15.8 percent on annual basis and decreased by 1.1 percent on monthly basis.

1.3. Overall Rwanda Index

Rwanda CPI increased by 11.9 percent on annual basis and decreased by 0.8 percent on monthly basis.

TABLE 1: Consumer Price Index, Urban and Rural													
percentage change on the same period 12 months earlier:													
	2018	**2019**											
	Dec.	Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
Urban CPI Annual change	1.1	1.0	0.8	1.1	0.2	0.0	0.9	1.9	2.3	3.1	4.4	6.9	6.7
Rural CPI Annual change	-0.6	-0.4	-1.3	0.4	-0.7	-0.7	0.9	1.3	3.2	5.8	9.2	15.5	15.8
Rwanda CPI Annual change	0.1	0.2	-0.4	0.7	-0.3	-0.4	0.9	1.6	2.8	4.6	7.2	11.8	11.9
Urban CPI Monthly change	-0.2	0.0	0.3	1.1	0.3	0.9	0.0	0.0	0.9	0.9	0.6	1.9	-0.3
Rural CPI Monthly change	-1.3	0.0	-0.4	3.1	1.2	0.8	-0.1	-0.2	2.5	2.2	1.9	5.2	-1.1
Rwanda CPI Monthly change	-0.8	0.0	-0.1	2.2	0.9	0.8	-0.1	-0.1	1.8	1.6	1.4	3.8	-0.8
Source: NISR													

2. Urban Consumer Price Index

The urban CPI is calculated based on approximately 1,622 products in twelve urban centres of Rwanda. The table below shows monthly and annual changes in December 2019 for the main categories of the urban index.

Code	Categories	Weights	Percentage change in Dec. 2019 on Nov. 2019	Percentage change in Dec. 2019 on Dec. 2018
	GENERAL INDEX	*100%*	**-0.3%**	**6.7%**
01	Food and non-alcoholic beverages	*27%*	-1.8%	14.9%
01.1.1	Bread and cereals	*5%*	1.1%	10.9%
01.1.2	Meat	*2%*	0.9%	19.3%
01.1.4	Milk cheese and eggs	*1%*	0.6%	-0.1%
01.1.7	Vegetables	*9%*	-6.8%	25.9%
01.2	Non-alcoholic beverages	*1%*	0.1%	4.2%
02	Alcoholic beverages tobacco and narcotics	*5%*	3.0%	20.6%
03	Clothing and footwear	*5%*	0.2%	8.2%
04	Housing water, electricity, gas and other fuels	*21%*	0.0%	2.2%
05	Furnishings household equipment and routine household maintenance	*4%*	0.0%	1.9%
06	Health	*1%*	0.0%	0.2%
07	Transport	*12%*	0.2%	1.1%
08	Communication	*3%*	0.0%	0.0%
09	Recreation and culture	*3%*	-0.2%	4.0%
10	Education	*3%*	0.0%	1.4%
11	Restaurants and hotels	*9%*	0.0%	0.7%
12	Miscellaneous goods and services	*6%*	0.1%	1.7%

TABLE 2: Consumer Price Index, Urban summary

Source: NISR

Urban CPI increased by 6.7 percent in December 2019 compared to the same month of 2018. Food and non-alcoholic beverages increased by 14.9 percent and 'Alcoholic beverages, tobacco and narcotics increased by 20.6 percent.

The CPI for December decreased by 0.3 percent compared to November 2019. Food and non-alcoholic beverages decreased by 1.8 percent.

The underlying inflation rate (excluding fresh food and energy) increased by 3.6 percent compared to December 2018 and increased by 0.3 percent when compared to November 2019 (See Table 4).

The annual average inflation rate between December 2019 and December 2018 is 2.4 percent. The annual average underlying inflation rate is 2.3 percent.

TABLE 3: Consumer Price Index (Urban only): Core and General, annual percentage change (evolution over 12 months)
percentage change on the same period 12 months earlier:

	2018 Dec.	2019 Jan.	Feb.	Mar.	Apr.	May.	Jun.	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.
General index	1.4	1.3	1.3	1.4	1.2	1.0	0.8	0.8	0.8	1.0	1.4	2.0	2.4
Core / Underlying index	1.6	1.6	1.6	1.6	1.5	1.5	1.5	1.6	1.7	1.8	2.0	2.1	2.3

Source: NISR

Figure 1: Annual changes in urban CPI (May 2012 – December 2019)
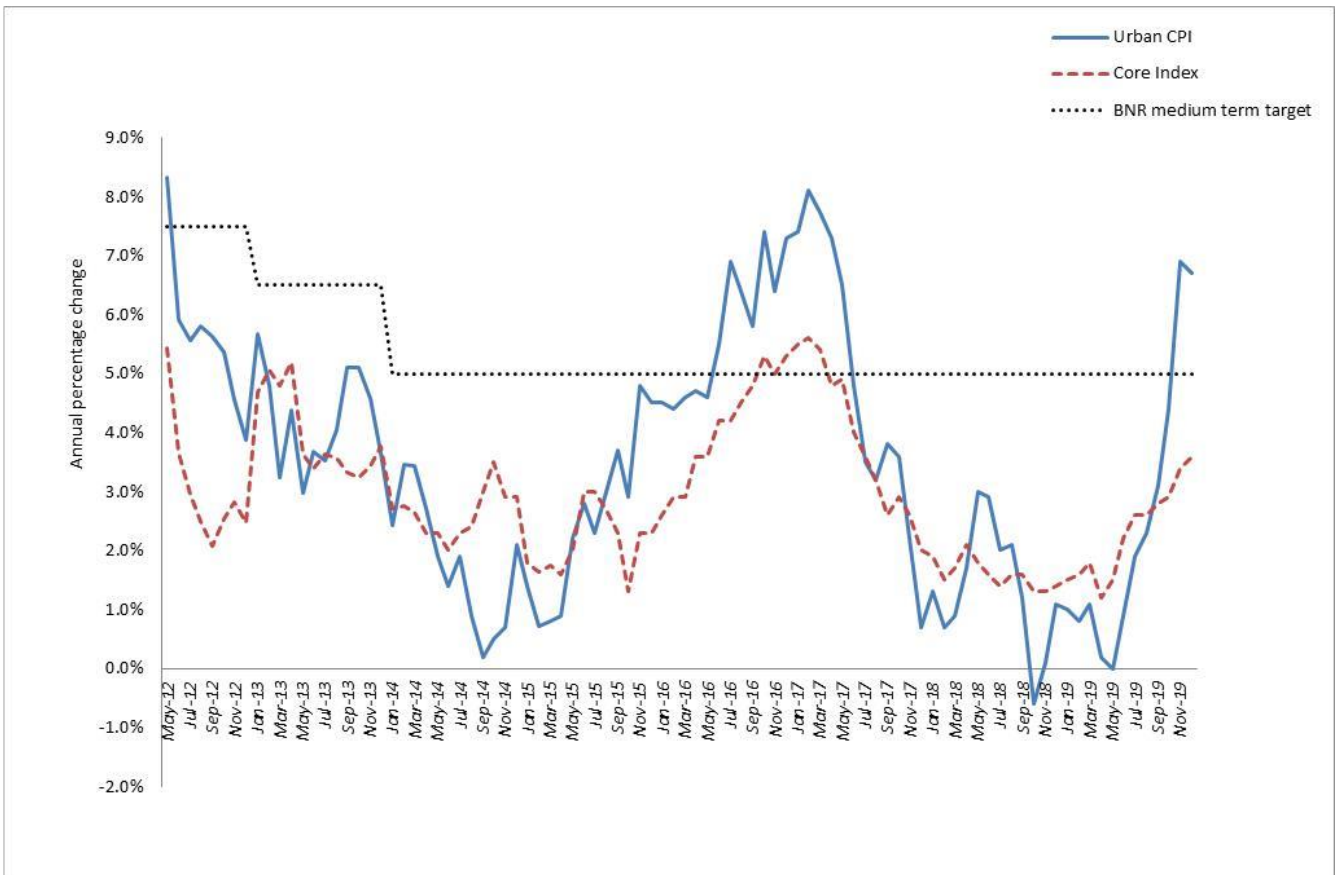
3. Other selected urban indices

This section highlights five selected urban indices: - the local goods index, the imported goods index, the fresh products index, the energy index and the core index.

On annual basis, the local goods index increased by 7.4 percent, the imported goods index increased by 4.7 percent, the fresh products index increased by 23.6 percent, the energy index increased by 2.5 percent and the core index or the general index excluding fresh products and energy increased by 3.6 percent.

On monthly basis, the local goods index decreased by 0.4 percent, the imported goods index decreased by 0.1 percent, the fresh products decreased by 2.8 percent, the energy index increased by 0.1 percent and the core index increased by 0.3 percent.

TABLE 4: Consumer Price Index (Urban only), Core & other			
		Percentage change in Dec. 2019	
Categories	*Weights*	on Nov. 2019	on Dec. 2018
GENERAL INDEX	*100%*	**-0.3%**	**6.7%**
Local Goods Index	*77%*	**-0.4%**	**7.4%**
Food and non-alcoholic beverages	*21%*	-2.2%	18.7%
Housing, water, electricity, gas and other fuels	*21%*	0.0%	2.2%
Transport	*6%*	0.5%	1.2%
Imported Goods Index	*23%*	**-0.1%**	**4.7%**
Food and non-alcoholic beverages	*7%*	-0.4%	3.5%
Furnishing, household equipment	*2%*	-0.1%	2.5%
Transport	*6%*	-0.1%	1.1%
Fresh Products index[1]	*16%*	**-2.8%**	**23.6%**
Energy index	*7%*	**0.1%**	**2.5%**
General Index excluding fresh Products and	*77%*	**0.3%**	**3.6%**
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.

Weights used for the index are from the Household Living Conditions Survey (EICV4) results 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.

4.1 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. 2. How to Interpret 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
Less CPI for previous period	<u>176</u>
Equals index point change	2

Percent change

Index point difference	2
Divided by the previous index	176
Equals	0.011
Results multiplied by 100	0.011 x 100
Equals percent change	1.1

6. Annexes: Reference Tables

Annex 1: Consumer Price Index, Urban

Code	Categories	Weights	Index (Feb 2014=100)			Percentage change in Dec. 2019		Contributions[1]:	
			Dec-18	Nov-19	**Dec-19**	on Nov. 2019	on Dec. 2018	1 month	12 months
	GENERAL INDEX	100%	115.0	123.1	**122.7**	**-0.3%**	**6.7%**	**-0.3%**	**6.7%**
01	Food and non-alcoholic beverages	27%	118.0	138.1	**135.7**	-1.8%	14.9%	-0.6	4.2
01.1.1	Bread and cereals	5%	118.7	130.2	**131.6**	1.1%	10.9%	0.1	0.6
01.1.2	Meat	2%	116.9	138.2	**139.5**	0.9%	19.3%	0.0	0.4
01.1.4	Milk cheese and eggs	1%	119.9	118.9	**119.7**	0.6%	-0.1%	0.0	0.0
01.1.7	Vegetables	9%	118.5	160.0	**149.2**	-6.8%	25.9%	-0.8	2.4
01.2	Non-alcoholic beverages	1%	122.9	127.9	**128.1**	0.1%	4.2%	0.0	0.1
02	Alcoholic beverages tobacco and narcotics	5%	131.9	154.5	**159.2**	3.0%	20.6%	0.2	1.1
03	Clothing and footwear	5%	116.0	125.4	**125.6**	0.2%	8.2%	0.0	0.4
04	Housing water, electricity, gas and other fuels	21%	112.8	115.2	**115.3**	0.0%	2.2%	0.0	0.4
05	Furnishings household equipment and routine household maintenance	4%	113.9	116.1	**116.1**	0.0%	1.9%	0.0	0.1
06	Health	1%	107.5	107.7	**107.8**	0.0%	0.2%	0.0	0.0
07	Transport	12%	121.9	123.1	**123.3**	0.2%	1.1%	0.0	0.2
08	Communication	3%	105.8	105.8	**105.8**	0.0%	0.0%	0.0	0.0
09	Recreation and culture	3%	114.4	119.2	**119.0**	-0.2%	4.0%	0.0	0.1
10	Education	3%	103.4	104.9	**104.9**	0.0%	1.4%	0.0	0.0
11	Restaurants and hotels	9%	105.1	105.9	**105.9**	0.0%	0.7%	0.0	0.1
12	Miscellaneous goods and services	6%	111.9	113.6	**113.8**	0.1%	1.7%	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 Dec. 2019		Contributions[1]:	
			Dec-18	Nov-19	**Dec-19**	on Nov. 2019	on Dec. 2018	1 month	12 months
	GENERAL INDEX	100%	119.9	140.4	**138.9**	**-1.1%**	**15.8%**	**-1.1%**	**15.8%**
01	Food and non-alcoholic beverages	48%	116.4	152.8	**148.9**	-2.5%	27.9%	-1.3	13.0
01.1.1	Bread and cereals	8%	123.0	157.5	**163.0**	3.5%	32.6%	0.3	2.5
01.1.2	Meat	2%	121.4	145.3	**147.1**	1.2%	21.2%	0.0	0.3
01.1.4	Milk cheese and eggs	1%	116.6	125.3	**126.2**	0.7%	8.2%	0.0	0.1
01.1.7	Vegetables	26%	114.0	167.3	**156.9**	-6.2%	37.7%	-1.9	9.2
01.2	Non-alcoholic beverages	1%	115.8	119.1	**121.0**	1.6%	4.5%	0.0	0.0
02	Alcoholic beverages tobacco and narcotics	8%	116.8	141.5	**144.8**	2.4%	24.0%	0.2	1.9
03	Clothing and footwear	5%	116.0	121.7	**122.3**	0.4%	5.4%	0.0	0.3
04	Housing water, electricity, gas and other fuels	16%	128.9	130.3	**130.2**	0.0%	1.0%	0.0	0.2
05	Furnishings household equipment and routine household maintenance	3%	108.9	113.0	**113.4**	0.3%	4.2%	0.0	0.1
06	Health	1%	105.4	107.1	**107.1**	0.0%	1.6%	0.0	0.0
07	Transport	4%	111.4	112.1	**112.3**	0.2%	0.7%	0.0	0.0
08	Communication	2%	100.0	100.0	**100.0**	0.0%	0.0%	0.0	0.0
09	Recreation and culture	1%	109.2	120.9	**120.4**	-0.3%	10.3%	0.0	0.1
10	Education	1%	170.6	175.2	**175.2**	0.0%	2.7%	0.0	0.1
11	Restaurants and hotels	5%	116.1	116.1	**116.0**	-0.1%	-0.1%	0.0	0.0
12	Miscellaneous goods and services	4%	111.2	112.9	**112.9**	-0.1%	1.5%	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 3: Consumer Price Index, All Rwanda

Code	Categories	Weights	Index (Feb 2014=100)			Percentage change in Dec. 2019		Contributions[1]:	
			Dec-18	Nov-19	**Dec-19**	on Nov. 2019	on Dec. 2018	1 month	12 months
00	**GENERAL INDEX**	100%	118.7	133.9	**132.8**	**-0.8%**	**11.9%**	**-0.8%**	**11.9%**
01	Food and non-alcoholic beverages	39%	117.8	149.4	**145.9**	-2.3%	23.8%	-1.0	9.2
01.1.1	Bread and cereals	7%	122.7	149.3	**153.4**	2.7%	24.9%	0.2	1.7
01.1.2	Meat	2%	119.6	142.3	**143.8**	1.1%	20.3%	0.0	0.4
01.1.4	Milk cheese and eggs	1%	118.0	121.7	**122.5**	0.7%	3.9%	0.0	0.0
01.1.7	Vegetables	18%	115.1	166.0	**155.5**	-6.3%	35.1%	-1.4	6.3
01.2	Non-alcoholic beverages	1%	119.0	123.1	**124.2**	0.8%	4.3%	0.0	0.0
02	Alcoholic beverages tobacco and narcotics	7%	121.2	145.2	**148.9**	2.6%	22.9%	0.2	1.6
03	Clothing and footwear	5%	115.9	123.2	**123.6**	0.3%	6.6%	0.0	0.3
04	Housing water, electricity, gas and other fuels	18%	120.2	122.0	**122.0**	0.0%	1.5%	0.0	0.3
05	Furnishings household equipment and routine household maintenance	3%	111.0	114.2	**114.5**	0.2%	3.1%	0.0	0.1
06	Health	1%	106.4	107.4	**107.4**	0.0%	0.9%	0.0	0.0
07	Transport	8%	118.2	119.2	**119.4**	0.2%	1.0%	0.0	0.1
08	Communication	2%	102.5	102.5	**102.5**	0.0%	0.0%	0.0	0.0
09	Recreation and culture	2%	112.1	119.7	**119.4**	-0.3%	6.5%	0.0	0.1
10	Education	2%	133.3	136.1	**136.1**	0.0%	2.1%	0.0	0.0
11	Restaurants and hotels	6%	110.4	110.8	**110.8**	0.0%	0.4%	0.0	0.0
12	Miscellaneous goods and services	5%	111.2	112.9	**112.9**	0.0%	1.6%	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.

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