Consumer Price Index

August 2019





Table of Contents

A note to the reader	ii
1 MONTHLY CHANGE OF THE CPI	1
1.1 CPI AND INFLATION	1
1.2 Changes in sector	1
1.3 CHANGES IN CATEGORIES AND SUBCATEGORIES	1
2 END OF PERIOD CHANGE OF THE CPI	2
2.1 End of period change CPI for August 2019	2
2.2 CHANGES IN SECTOR	2
2.3 CHANGES IN CATEGORIES	2
2.4 End of year change CPI 2010 - 2019	2
2.5 Period average change CPI for August 2019	2
3 DEVELOPMENT OF INDICES OF MAIN SECTORS AND UTILITIES	3
3.1 Indices main sectors	3
3.2 Electricity	3
3.3 WATER	3
3.4 GASOLINE AND DIESEL	3
4 PERCENTAGE CHANGE CPI OF ARUBA'S MAJOR TRADING PARTNERS	4
4.1 COMPARISON OF THE CPI OF ARUBA AND THE USA	4
5 CORE INFLATION	5
5.1 Core inflation	5
5.2 MONTHLY CHANGE OF THE CORE INFLATION	5
5.3 End of year change of the core inflation, 2014 - 2019	5
6 DEVELOPMENT OF FOOD & CATERING SERVICES	6
6.1 MONTHLY CHANGE OF FOOD & CATERING SERVICES FOR AUGUST 2019	6
6.2 END OF PERIOD CHANGE OF FOOD & CATERING SERVICES FOR AUGUST 2019	6
7 SUBSISTENCE LEVEL	7
7.1 Subsistence level	7
7.2 MONTHLY CHANGE OF THE SUBSISTENCE LEVEL FOR AUGUST 2019	7
7.3 COMPARISON OF THE SUBSISTENCE LEVEL AND MINIMUM WAGE	7
APPENDICES	
APPENDIX 1: MONTHLY AND YEARLY % CHANGES IN THE CPI FOR AUGUST 2019	8
APPENDIX 2: EFFECT ON THE CPI PER SECTOR AND CATEGORY FOR AUGUST 2019	9
APPENDIX 3: MONTHLY & YEARLY CHANGES (%) AND EFFECT IN THE FOOD & CATERING SERVICES FOR	
August 2019	
APPENDIX 4: MONTHLY AND YEARLY % CHANGES AND EFFECT IN THE MAIN INDICES FOR AUGUST 2019	
Appendix 5: Course of indices for 2010 – up to August 2019	
Appendix 6: Glossary	13

A note to the reader

he following report presents the price statistics for August 2019.

- As of January 2017, the expenditure weights will be based on the Household Expenditure Survey held by the CBS during the months of May to June of 2016. In order to calculate consistent annual rates of change, the CPI has to be calculated retrospectively for 2 years. Therefore, June of 2019 has been chosen as the new base period for the CPI. Subsequently, the CPI figures for 2017, 2018 and 2019 have been revised accordingly.
- At the end of August 2019 the Consumer Price Index (CPI) shows a decrease of 0.3% compared to the end of July 2019. The sector which affected the CPI the most was "Recreation and culture" (-3.0%), which led to an effect of -0.26 percentage points (ppts) on the Δ CPI of August 2019 (-0.3%).
- Compared to August 2018 the CPI increased by 4.0%. The sector which affected the CPI the most was "Food and non-alcoholic beverages" (15.6%). Specifically, the prices of "Food" (16.5%) registered an increase and caused an effect of 2.35 ppts on the end of period inflation of August 2019 (4.0%).
- The period average inflation for the period August 2018 August 2019 is 4.1%, which is 2.3 ppts higher compared to the period average inflation for the period August 2017 August 2018 (1.8%).
- Utilities (Water and Electricity) did not register price changes in August 2019. The price of gasoline registered an increase of 3.4% in August 2019 and caused an effect of 0.15 ppts on the Δ CPI of August 2019. The price of diesel registered an increase of 1.7% in August 2019 and had an effect of 0.01 ppt on the Δ CPI of August 2019.

This report is divided in 7 sections. An overview of the monthly percentage changes in the CPI and index per sector is presented in section 1. Section 2 provides the yearly percentage changes in the CPI and index per sector. The development of indices of main sectors and utilities is outlined in section 3. Section 4 presents the percentage change in the CPI of Aruba's major trading partners and compares the CPI of Aruba and the USA. Section 5 presents an overview of the monthly and yearly percentage changes of the core inflation. Section 6 presents the price movements in food & catering services. The development of the subsistence level is presented in section 7 and is followed by the appendices.

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1 Monthly change of the CPI

1.1 CPI and Inflation

The CPI of the total population of Aruba for the month of August 2019 is 99.80; a decrease of 0.3% compared to the CPI of July 2019 (100.06). An overview of the percentage change in the CPI (Δ CPI) for different periods during 2018 and 2019 is shown in Table 1. The terms percentage change in the CPI and "inflation" (deflation) are considered similar and are used interchangeably. The inflation over the last 12 months (end of period inflation) is 4.0%, while the inflation over a period of 24 months (period average inflation) is 4.1%.

Table 1: Overview of ∆ CPI

		% Changes		Ind	ex
Period		2019	2018	Current	Last
Monthly	Jul - Aug	-0.3	-0.6	99.80	100.06
Year-to-date	Dec - Aug	3.2	3.7	99.80	96.67
Last 12 months ¹	Aug - Aug	4.0	4.7	99.80	95.96
Last 24 months ²	Aug - Aug	4.1	1.8	97.74	93.89

Source: Central Bureau of Statistics Aruba

¹ End of period inflation

² Period average inflation

Figure 1 depicts the monthly Δ CPI over a period of one year starting from August 2018, whereas the Δ CPI for the month August for the years 2010 to 2019 is illustrated in Figure 2.

1.2 Changes in sector

Figure 3 provides an overview of the percentage changes for the indices per sector for August 2019. The percentage change in index is further denoted as Δ I. The largest Δ I is observed for the sector "Recreation and culture" with an increase of 3.0%.

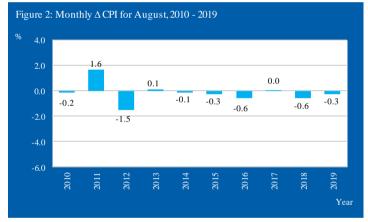
1.3 Changes in categories and subcategories

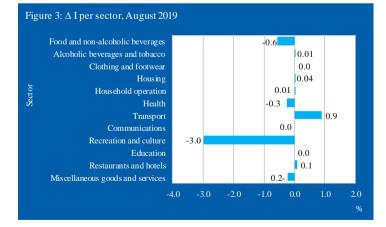
The largest positive and negative Δ I is seen in the categories "Accommodation services" (4.6%) and "Holidays" (-13.6%). In the "Food and non-alcoholic beverages" sector a decrease of 0.6% is observed for the category "Food", while the category "Non-alcoholic beverages" registered an increase of 0.2% in August. In the "Transport" sector the major Δ I is observed for the category "Transport services" (-8.7%), mainly caused by a decrease in "Plane tickets" (-11.6%). In the "Recreation and culture" sector the major Δ I is observed for the category "Holidays" (-13.6%)¹.

The categories which influenced the CPI calculation the most are "Holidays", "Operation of personal transport equipment" and "Food", which had an effect of respectively, -0.26, 0.15 and -0.10 ppts on the Δ CPI. Reference is made to tables 16 and 17 in Appendices 1 and 2. Table 16 provides an overview of the indices for the months August 2018, December 2018, July 2019 and

August 2019 together with corresponding weights per sector and the monthly, year-to-date (ytd), end of period and period average percentage changes for August 2019. In table 17 an overview of the effect on the monthly, year-to-date (ytd), end of period and period average CPI per sector and category for August 2019 is presented. The course of indices for 2010 – up to August 2019 is illustrated in Appendix 5.







¹ The focus is on the four major sectors which are: Housing, Transport, Food and nonalcoholic beverages and Recreation and culture. Together these sectors form 64% of the total weight of the basket of goods and services.

2 End of period change of the CPI

2.1 End of period change CPI for August 2019

The CPI increased from 95.96 in August 2018 to 99.80 in August 2019, an increase of 4.0%. This Δ CPI is the second highest registered over a period of 5 years for the month August, and is 0.7 ppts higher than the Δ CPI registered in 2018 (4.7%) (see table 2).

Period	Δ CPI	Index
2014-2015	0.7	94.13
2015-2016	-1.4	92.82
2016-2017	-1.2	91.68
2017-2018	4.7	95.96
2018-2019	4.0	99.80

Source: Central Bureau of Statistics Aruba

2.2 Changes in sector

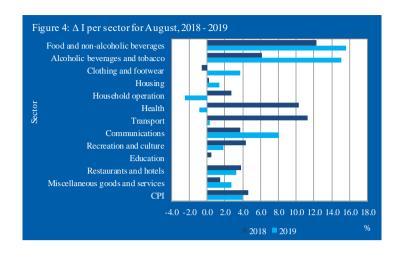
An overview of the percentage change per sector over the period August 2018 - August 2019 is presented in table 3. The largest Δ I is observed for the sector "Food and non-alcoholic beverages" with an increase of 15.6%. Furthermore, increases of 15.1%, 8.0% and 3.7% are observed for the "Alcoholic beverages and tobacco", "Communications" and "Clothing and footwear" sectors, respectively. A comparison of the Δ I's for the years 2018 and 2019 is provided in figure 4.

Table 3: Percentage change for August, 2018 - 2019

Sector	% Change
Food and non-alcoholic beverages	15.6
Alcoholic beverages and tobacco	15.1
Clothing and footwear	3.7
Housing	1.4
Household operation	-2.5
Health	-0.8
Transport	0.3
Communications	8.0
Recreation and culture	1.8
Education	0.0
Restaurants and hotels	3.3
Miscellaneous goods and services	2.7
CPI	4.0
Source: Central Bureau of Statistics Aruba	

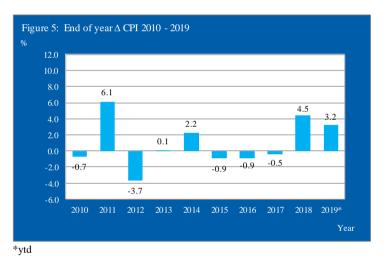
2.3 Changes in categories

The largest positive and negative Δ I in categories observed over a period of one year are respectively, "Alcoholic beverages for consumption at home" (19.8%) and "Telephone and telefax equipment" (-16.6%). For an overview of the end of period percentage changes per category refer to table 16 in Appendix 1.



2.4 End of year change CPI 2010 - 2019

The end of year Δ CPI for the period 2010 - 2019 is shown in figure 5. The Δ CPI for 2019 is calculated by comparing the CPI of August 2019 with the CPI of December 2018. At the end of each year, the end of year percentage change equals the ytd Δ CPI. The ytd Δ CPI for August 2019 is 3.2%.



2.5 Period average change CPI for August 2019

The period average change CPI (Δ ACPI) for August 2019 is 4.1%. Table 4 provides an overview of the Δ ACPI for the month August for the years 2015 to 2019. The Δ ACPI for 2019 increased by 3.3 ppts compared to 2018 (1.8%).

Table 4: Overview of △ ACPI for August, 2015 - 2019

Period	Δ ΑCPI	Index
2014-2015	1.0	93.87
2015-2016	-0.9	92.98
2016-2017	-0.8	92.27
2017-2018	1.8	93.89
2018-2019	4.1	97.74

Source: Central Bureau of Statistics Aruba

CDS CONSUMER PRICE INDEX Aruba Indices of main sectors and utilities

3 Development of indices of main sectors and utilities

3.1 Indices main sectors

The four major sectors, "Housing", "Transport", "Food and nonalcoholic beverages" and "Recreation and culture", constitute 64% of the total weight of the basket of goods and services, which are observed on a monthly basis. An overview of the course of indices for 2010 – up to August 2019 per sector and for the CPI is provided in figures 9-1 to 9-12 in Appendix 5.

Changes in the indices of the sectors "Housing" and "Transport" are mainly the result of changes in the international oil prices and prices of utilities during the respective months. The development of crude oil, fuel surcharge, electricity, water, gasoline and diesel prices is provided in table 5 and in the adjoining figures 6-1 and 6-2.

Table 5: Prices of utilities, gasoline and diesel, 2018 - 2019

		Total	Total				
	Crude oil	energy charge ²	energy charge ²				
Month	per barrel ¹	≤ 500 kWh	501-1000 kWh	Electricity ³	$Water^4$	Gasoline⁵	Diesel⁵
Aug-18	68.25	34.52	35.72	265.65	137.05	217.10	184.60
Sep-18	70.15	34.52	35.72	265.65	137.05	215.90	185.00
Oct-18	71.44	34.52	35.72	265.65	137.05	216.40	190.10
Nov-18	57.91	34.52	35.72	265.65	137.05	214.60	194.20
Dec-18	49.09	34.52	35.72	265.65	137.05	199.40	181.00
Jan-19	50.65	34.52	35.72	265.65	137.05	188.50	165.10
Feb-19	54.45	34.52	35.72	265.65	137.05	189.40	170.20
Mar-19	57.84	34.52	35.72	265.65	137.05	197.70	177.30
Apr-19	63.89	34.52	35.72	265.65	137.05	197.70	181.10
May-19	60.89	34.52	35.72	265.65	137.05	209.50	185.00
Jun-19	54.66	34.52	35.72	265.65	137.05	209.50	183.70
Jul-19	57.28	34.52	35.72	265.65	137.05	208.00	174.20
Aug-19	55.17	34.52	35.72	265.65	137.05	215.10	177.20

Source: Central Bureau of Statistics Aruba

¹ Average West Texas Intermediate (WTI) crude oil price per barrel in US\$ (Source: U.S. Energy Information Administration)

² Total energy charge in Afl. cents per kWh

³ Electricty price in Afl.

⁴ Water price in Afl.

⁵ Gasoline and diesel prices in Afl. cents per liter

3.2 Electricity

The price of electricity is determined in Aruban florins (Afl.) for an average usage by households. The average usage is 725.5 kWh per month. The electricity price for an average consumption of 725.5 kWh did not change in August 2019, it remained at Afl. 265.65. Figure 6-1 provides an overview of the course of changes in the electricity price for the period 2011 to 2018.

The total energy charge per kWh for a usage of electricity up to 500 kWh did not change in August 2019, it stayed at Afl. 34.52 cents per kWh. The total energy charge per kWh for a usage of electricity between 501 - 1000 kWh did not change in August 2019, it stayed at Afl. 35.72 cents per kWh.

3.3 Water

The price of water is determined in Afl. for an average usage (water consumption) by households. Figure 6-1 provides an overview of the course of changes in the water price for the period 2011 to 2018. The water price for an average usage by households did not change in August 2019, it remained at Afl. 137.05.

3.4 Gasoline and Diesel

The retail price of gasoline increased by 3.4% from 208.0 cents per liter in July 2019 to 215.1 cents per liter in August 2019. In August 2019, the retail price of diesel registered an increase of 1.7% from 174.2 cents per liter in July 2019 to 177.2 cents per liter in August 2019.

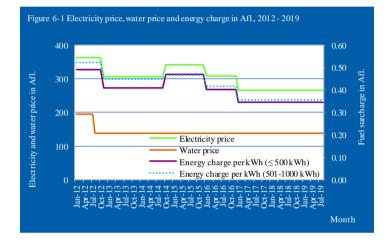
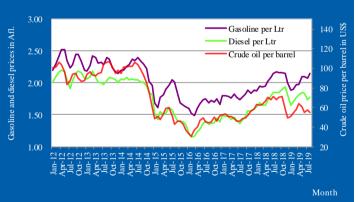


Figure 6-2 Gasoline, diesel and crude oil prices, 2012 - 2019



CDS CONSUMER PRICE INDEX Aruba CPI of Aruba's major trading partners

4 Percentage change CPI of Aruba's major trading partners

4.1 Comparison of the CPI of Aruba and the USA

Table 6 provides an overview of the Δ CPI of Aruba's major trading partners starting from August 2018. In August 2019 the Δ CPI of the USA, Curaçao and the Netherlands were 0.0%, 0.2% and 0.4%.

Table 6: Monthly Δ CPI 2018 - 2019 per Country

Period	Aruba	USA	Curaçao	Netherlands
Aug-18	-0.2	0.1	0.2	0.3
Sep-18	0.0	0.1	0.3	-0.4
Oct-18	-0.1	0.2	-0.2	0.4
Nov-18	0.5	-0.3	0.4	-0.2
Dec-18	0.3	-0.3	0.6	-0.1
Jan-19	-0.4	0.2	-0.2	0.1
Feb-19	0.6	0.4	-0.5	0.9
Mar-19	0.9	0.6	-0.3	0.4
Apr-19	0.6	0.5	0.8	0.7
May-19	0.4	0.2	0.9	-0.1
Jun-19	0.8	0.0	0.8	-0.1
Jul-19	0.1	0.2	-0.2	1.0
Aug-19	-0.3	0.0	0.2	0.4

Source: CBS Aruba, Bureau of Labor Statistics (USA), CBS Curaçao and CBS Netherlands

The USA is considered Aruba's largest trading partner². Table 7 provides an overview of the Δ CPI for Aruba and the USA in August 2019. Aruba's monthly Δ CPI for August 2019 is 0.3 ppts lower than the Δ CPI of the USA.

Table 7: Overview of △ CPI, 2019

Period		Aruba	USA
Monthly	Jul - Aug	-0.3	0.0
Year-to-date	Dec - Aug	3.2	2.1
Last 12 months 1	Aug - Aug	4.0	1.7
Last 24 months ²	Aug - Aug	4.1	1.9

Source: Central Bureau of Statistics Aruba

¹ End of period inflation

² Period average inflation

The Δ CPI of Aruba over the last 12 months is 2.3 ppts higher compared to the USA's 12-month Δ CPI. The Δ CPI over the last 24 months for Aruba is 2.2 ppts higher than the Δ CPI of the USA. The monthly inflation for both Aruba and the USA is depicted in figure 7 over a period of one year. Furthermore, an overview of the end of year Δ CPI over the period 2009 - 2019 for Aruba and the USA is provided in table 8 and figure 8.

² "55% of Aruba's import by sea and air originates from the USA" (Source: Foreign Trade Statistics Report, 2nd Quarter 2019).

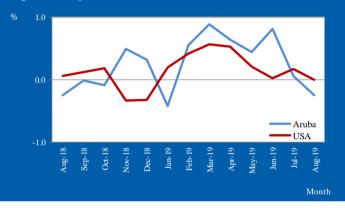
Table 8: End of year Δ CPI, 2009 - 2019

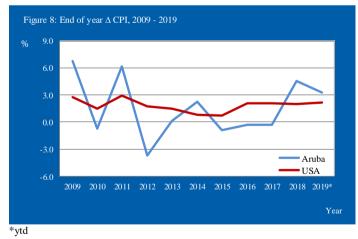
Period	Aruba	USA
2009	6.8	2.7
2010	-0.7	1.5
2011	6.1	3.0
2012	-3.7	1.7
2013	0.1	1.5
2014	2.2	0.8
2015	-0.9	0.7
2016	-0.3	2.1
2017	-0.3	2.1
2018	4.6	2.0
2019*	3.2	2.1

Source: Central Bureau of Statistics Aruba

* ytd

Figure 7: Monthly \triangle CPI for Aruba and the USA, 2018 - 2019





5 Core inflation

5.1 Core inflation

Core inflation is a measure of inflation which excludes certain items that face volatile price movements e.g. food products and energy. By calculating the core inflation these more volatile components are eliminated from the inflation. Core inflation indices serve to assess the mid- and long-term trend of the overall price level. For the purpose of adjusting monetary policy, many economists focus more intently on the core rate of inflation, as this allows for an in-depth assessment of inflationary processes ongoing in the economy.

5.2 Monthly change of the core inflation

In August 2019 the core inflation (measured over the period August 2018 - 2019) was 2.9%. In August 2019 the food index was 12.4%, while the energy index shows an increase of 1.4%.

Table 9: Monthly inflation¹ and core inflation, 2018 - 2019

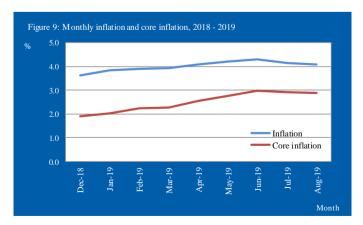
				Core
Period	Inflation	Food	Energy ²	Inflation
Dec-18	3.6	11.4	3.8	1.9
Jan-19	3.8	12.4	3.7	2.0
Feb-19	3.9	12.1	3.4	2.2
Mar-19	3.9	12.1	3.3	2.3
Apr-19	4.1	12.0	3.1	2.5
May-19	4.2	11.9	2.9	2.8
Jun-19	4.3	12.0	2.5	3.0
Jul-19	4.2	12.1	1.9	2.9
Aug-19	4.1	12.4	1.4	2.9

Source: Central Bureau of Statistics Aruba

¹ Period average inflation

² Energy : Electricity, water, gasoline and diesel

The monthly inflation and core inflation for Aruba is shown in figure 9 over a period of one year starting from August 2018.



5.3 End of year change of the core inflation, 2014 - 2019

The end of year core inflation of the total population of Aruba for the year 2019 (up to August) is 3.0%, an increase of 1.1 ppts compared to the core inflation of 2018. Table 10 provides an overview of the end of year inflation and core inflation over the period 2014 - 2019.

The end of year inflation and core inflation is presented in figure 10 over the period 2014 - 2019.

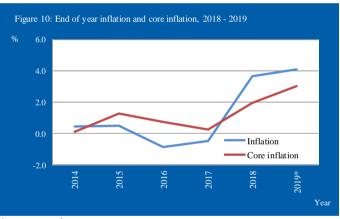
Table 10: End of year core inflation, 2014 - 2019

Period	2014	2015	2016	2017	2018	2019*
Inflation	0.4	0.5	-0.9	-0.5	3.6	4.1
Food	2.2	1.9	-0.1	0.8	12.2	12.8
Electricity	2.9	8.5	-9.9	-14.0	0.0	0.0
Water	0.0	0.0	0.0	0.0	0.0	0.0
Gasoline and diesel	-2.3	-20.1	-7.9	9.2	13.9	4.7
Core inflation	0.1	1.3	0.7	0.3	1.9	3.0

Source: Central Bureau of Statistics Aruba

*current month

Note: the figures for the years 2014-2017 are based on the weights of Dec 2006=100



*current month

Note: the figures for the years 2014-2017 are based on the weights of Dec $2006{=}100$

6 Development of Food & catering services

6.1 Monthly change of Food & catering services for **August 2019**

The "Food & catering services" index showed a decrease of 0.4% in August 2019, after a decrease of also 0.4% in July 2019. The index for "Food at home" showed a decrease of 0.6% in August, as five (5) of the eleven (11) "Food at home" indices decreased in August 2019. The "Fruit" index registered the largest decrease (-3.0%) in August 2019. Furthermore, decreases were posted in the indices for "Bread and cereals" (-1.2%) and "Sugar, jam, honey and other confectionery" (-0.3%).

The "Potatoes and other tubers" index registered the largest increase (7.1%) in August 2019.

Table 11 provides an overview of the corresponding weights per food group together with the percentage changes and effect for August 2019.

Table 11: Percentage change of Food for August 2019

Food	Weight	% Change	Effect
Food & catering services	1,492.8	-0.4	-0.100
Food at home	1,125.3	-0.6	-0.100
Bread and cereals	205.2	-1.2	-0.026
Meat	229.8	-0.1	-0.002
Fish and other seafood	56.4	1.8	0.010
Milk, cheese and eggs	140.0	-0.1	-0.001
Oils and fats	31.6	0.6	0.003
Fruit	72.0	-3.0	-0.142
Potatoes and other tubers	18.5	7.1	0.017
Vegetables	75.7	1.9	0.031
Sugar, jam, honey and other confectionery	49.6	-0.3	-0.001
Food products n.e.c.	82.7	0.9	0.008
Non-alcoholic beverages	163.9	0.2	0.003
Food away from home	367.5	0.0	0.000
Other goods and services	8,507.2	-0.2	-0.155
Other goods	5,147.2	0.3	0.131
Other services	3,360.0	-0.8	-0.286
СРІ	10,000.0	-0.3	-0.255
Source: Central Bureau of Statistics Aruba			

In August 2019, "Food at home" and "Food away from home" as a group showed a decrease in price of 0.4% compared to July 2019, and had an influence of -0.10 ppts on the CPI, while the remaining goods and services, as a group, experienced a decrease in price of 0.2%, causing an effect of -0.15 ppts on the CPI.

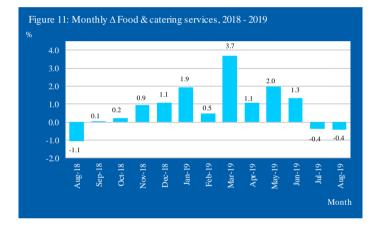
An overview of the percentage change and effect for "Food at home" and "Food away from home" for August 2019 is presented in table 12.

Table 12: Effect on the CPI of August 2019 of "Food at home" and "Food away from home"

Weight	% Change	Effect
1,087.7	-0.6	-0.10
429.8	0.0	0.00
1,517.5	-0.4	-0.10
8,482.5	-0.2	-0.15
10,000.0	-0.3	-0.25
	1,087.7 429.8 1,517.5 8,482.5	429.8 0.0 1,517.5 -0.4 8,482.5 -0.2

Source: Central Bureau of Statistics Aruba

Figure 11 depicts the monthly Δ Food and catering services over a period of one year starting from August 2018.



6.2 End of Period change of Food & catering services for August 2019

Over the last twelve (12) months, the "Food & catering services" has increased by 12.5%. The "Food at home" index showed an increase of 15.6%. The "Fruit" index increased by 41.9%, the largest increase among the "Food at home" food groups. The index for "Food away from home" was unchanged in August 2019 and has increased by 3.1% over the last twelve (12) months.

Table 18 provides an overview of the monthly and end of period percentage changes and effect for August 2019 for the food groups.

7 Subsistence level

7.1 Subsistence level

The subsistence level is the minimum level of income which is perceived necessary to achieve an adequate standard of living in a given country. The subsistence level is usually determined by estimating the cost of all the essential resources that an average adult consumes in one month or year. This is commonly called a basic needs index, and varies according to the price of food, clothing, housing, transport and other items in the "basket". Equivalence scales are used to adjust for the assumed standard of living, of households of different sizes and composition. The scale assigns a weight of 1.0 for the first adult and 0.5 for each additional adult in the household (aged 15+) and a weight of 0.3 for each child (aged 0-14 years). The subsistence level is based on figures of the report "Bestaansminimum 2010" published by the CBS in December 2010 and is monthly updated for inflation using the monthly CPI. The reference unit used in this report is one of a household consisting of two adults and two children (aged 0-14 vears).

7.2 Monthly change of the subsistence level for **August 2019**

Table 13 provides an overview of the subsistence level for a family of two adults and two children (aged 0-14 years) by sector registered over a period of 5 years for the month August. Over a period of one year the subsistence level increased by Afl. 339, from Afl. 4,642 in August 2018 to Afl. 4,981 in August 2019. The "Food and non-alcoholic beverages" sector shows the largest increase (Afl. 293), over this period.

Table 13: Monthly subsistence level in Aruba (in Afl.) by sector for a family of 2 adults and 2 childr (aged 0-14 years) for August, 2015 - 2019

						Change in Afl.
Sector	Aug-15	Aug-16	Aug-17	Aug-18	Aug-19	Aug-18 - Aug-19
Food and non-alcoholic beverages	1,579	1,562	1,675	1,880	2,173	293
Clothing and footwear	239	246	256	254	264	10
Housing	1,438	1,402	1,338	1,341	1,359	18
Household operation	132	130	128	132	128	-4
Health	69	70	71	78	78	0
Transport	250	240	245	273	274	1
Communications	128	129	125	129	140	11
Recreation and culture	178	179	159	166	169	3
Education	64	64	74	75	75	0
Miscellaneous goods and services	306	305	309	314	322	8
Total	4,383	4,326	4,381	4,642	4,981	339

Source: Central Bureau of Statistics Aruba

An overview of the subsistence level, for the most common family types, over the period August 2018 - August 2019 is presented in table 14.

Table 14: Subsistence level in Aruba (in Afl.) by family size and composition. August 2019 (Base period December 2010)

	Equivalence scales									
	1	1.3	1.5	1.8	2.1					
	1 adult	1 adult	2 adults	2 adults	2 adults					
Period		+ 1 child		+ 1 child	+ 2 children					
Aug-18	2,210	2,873	3,315	3,978	4,642					
Sep-18	2,208	2,870	3,312	3,974	4,637					
Oct-18	2,211	2,875	3,317	3,980	4,644					
Nov-18	2,228	2,896	3,342	4,010	4,678					
Dec-18	2,244	2,917	3,366	4,039	4,712					
Jan-19	2,255	2,931	3,382	4,058	4,735					
Feb-19	2,264	2,943	3,396	4,075	4,754					
Mar-19	2,317	3,013	3,476	4,171	4,867					
Apr-19	2,338	3,039	3,507	4,208	4,909					
May-19	2,361	3,069	3,541	4,249	4,957					
Jun-19	2,384	3,099	3,575	4,290	5,005					
Jul-19	2,379	3,093	3,569	4,283	4,997					
Aug-19	2,372	3,084	3,558	4,270	4,981					

Source: Central Bureau of Statistics Aruba

7.3 Comparison of the subsistence level and minimum wage

In August 2019 the subsistence level for a single adult household is Afl. 2,372, which represents an income deficit of Afl. 610, an increase of Afl. 111 compared to the deficit observed one year ago (Afl. 499). This deficit is the highest registered over a period of five years for the month August.

Tabel 15: Monthly income surplus/deficit (in Afl.) for

a single adult household for August, 2015 - 2019

		Minimum	
Period	1 adult	wage	Surplus/deficit
2015	2,087	1,637	-450
2016	2,060	1,678	-382
2017	2,086	1,711	-375
2018	2,210	1,711	-499
2019	2,372	1,762	-610

Source: Central Bureau of Statistics Aruba



						•			
DESCRIPTION	WEIGHT	2018	2018	2019	2019	Monthly	Ytd	End of period	Period average
	coefficient	Aug	Dec	Jul	Aug	Jul - Aug	Dec - Aug	Aug 18 - Aug 19	Aug 18 - Aug 19
Food and non-alcoholic beverages	1.087.7	120 07	142.00	161 64	160.63	-0.6	12.3	15.6	12.4
Food				166.23		-0.6	12.9	16.5	12.4
Non-alcoholic beverages				124.93		0.2	6.6	7.2	8.4
	125.0	110.77	117.45	124.95	125.15	0.2	0.0	1.2	0.4
Alcoholic beverages and tobacco	79.2	115 /0	115 97	132.90	122 01	0.0	14.7	15.1	11.7
Alcoholic beverages and tobacco		95.88		115.05		-0.2	19.1	19.8	14.0
Tobacco				202.27		-0.2	6.1	5.9	7.3
TODACCO	10.0	191.70	191.41	202.27	205.00	0.4	0.1	5.9	7.5
Clothing and footwear	776 9	73.86	76.46	76.60	76.60	0.0	0.2	3.7	4.2
Clothing		76.56	79.88	80.82	80.82	0.0	1.2	5.6	4.9
Footwear		64.88	65.09	62.56	62.56	0.0	-3.9	-3.6	1.7
rootwear	04.0	04.00	05.05	02.50	02.50	0.0	-3.5	-3.0	1.7
Housing	2.522.2	101 /0	101 04	102 92	102.88	0.0	0.9	1.4	0.9
Actual rentals for housing				126.50		0.0	1.0	1.4	1.7
Imputed rentals for housing				105.29		0.1	0.7	1.0	1.7
Maintenance and repair of the dwelling		85.61	86.82	89.76	89.76	0.0	3.4	4.8	1.1
		95.30	95.30	95.30	95.30	0.0	0.0	4.8 0.0	0.1
Water supply and miscellaneous services relating to the dwelling									
Electricity, gas and other fuels	840.4	96.16	96.16	96.16	96.16	0.0	0.0	0.0	0.2
Usual all accession	020.2	70.00	74.04	74.91	74.02	0.0		25	
Household operation		76.86	74.94				0.0	-2.5	0.3
Furniture, furnishings, carpets and other floor coverings	128.8		43.47	45.54	45.54	0.0	4.7	-1.3	-2.8
Household textiles		68.39	65.15	60.85	60.93	0.1	-6.5	-10.9	0.9
Household appliances		54.62	49.35	47.29	47.29	0.0	-4.2	-13.4	-5.3
Glassware, tableware and household utensils		61.08	59.81	64.73	65.11	0.6	8.9	6.6	7.9
Tools and equipment for house and garden		50.48	51.02	46.74	46.61	-0.3	-8.7	-7.7	2.6
Goods and services for routine household maintenance and cleaning	420.5	104.75	104.84	106.35	106.36	0.0	1.4	1.5	2.0
Health	223.1		85.40	85.18	84.96	-0.3	-0.5	-0.8	6.7
Medical products, appliances and equipment		89.63	89.37	88.85	88.53	-0.4	-0.9	-1.2	5.7
Out-patient services		77.72	77.72	77.72	77.72	0.0	0.0	0.0	12.1
Other treatments		75.50	74.38	76.07	76.07	0.0	2.3	0.8	1.9
Health products and services n.e.c.	10.5	75.50	74.38	76.07	76.07	0.0	2.3	0.8	1.9
Transport	1,257.4				100.58	0.9	3.2	0.3	3.5
Purchase of vehicles		90.23	90.24	90.24	90.24	0.0	0.0	0.0	2.1
Operation of personal transport equipment				105.91		1.9	4.6	0.3	4.3
Transport services	51.5	78.20	75.09	88.40	80.73	-8.7	7.5	3.2	0.8
Communications		72.15	77.94	77.95	77.95	0.0	0.0	8.0	8.7
Telephone and telefax equipment		20.62	17.07	17.20	17.20	0.0	0.8	-16.6	-20.1
Telephone and telefax services	805.8	74.95	81.25	81.25	81.25	0.0	0.0	8.4	9.2
Recreation and culture	1,013.3		81.77	84.33	81.80	-3.0	0.0	1.8	0.9
Audio-visual, photographic and information processing equipment		60.86	58.47	54.86	54.86	0.0	-6.2	-9.9	-8.6
Other major durables for recreation and culture		39.87	33.19	33.65	33.65	0.0	1.4	-15.6	-4.9
Other recreational items and equipment; gardens and pets				118.37	118.57	0.2	3.5	4.3	2.1
Recreational and cultural services		89.04	89.04	89.04	89.04	0.0	0.0	0.0	4.9
Newspapers, books and stationery		73.79	75.38	76.39	76.39	0.0	1.3	3.5	12.0
Holidays	315.4	50.75	55.25	60.72	52.45	-13.6	-5.1	3.4	-7.3
Education	98.0	109.30	109.30	109.30	109.30	0.0	0.0	0.0	0.4
Pre primary and primary education				86.66		0.0	0.0	0.0	0.0
Secondary education	43.4	94.62	94.62	94.62	94.62	0.0	0.0	0.0	1.0
Post-secondary non-tertiary education	4.6	102.85	102.85	102.85	102.85	0.0	0.0	0.0	0.0
Tertiary education	23.6	160.49	160.49	160.49	160.49	0.0	0.0	0.0	0.0
Education not definable by level	2.5	109.74	109.74	109.74	109.74	0.0	0.0	0.0	0.7
Restaurants and hotels	442.0	113.54	114.15	117.13	117.24	0.1	2.7	3.3	4.2
Catering services	429.8	114.51	115.14	118.09	118.09	0.0	2.6	3.1	4.3
Accommodation services	12.2	79.19	79.27	83.29	87.11	4.6	9.9	10.0	1.9
Miscellaneous goods and services	1,222.6	84.04	83.74	86.53	86.34	-0.2	3.1	2.7	2.5
Personal care	427.1	98.02	98.30	101.50	101.09	-0.4	2.8	3.1	2.8
Personal effects n.e.c.	106.6	91.39		105.99		-0.6	21.5	15.3	14.9
Social protection				115.39		0.0	0.0	0.0	0.0
Insurance		68.97	68.97	68.97	68.97	0.0	0.0	0.0	0.0
СРІ	10,000.0	95.96	96.67	100.06	99.80	-0.3	3.2	4.0	4.1
Source: Central Bureau of Statistics Aruba									

Table 16: Monthly & Yearly Changes (%) in the Consumer Price Index for August 2019, Total Population (Jun 2019 = 100)

Source: Central Bureau of Statistics Aruba

COS Consumer Price Index Aruba

DESCRIPTION	WEIGHT	Monthly	Ytd	End of period	Period ave
	coefficient	Jul - Aug	Dec - Aug	Aug 18 - Aug 19	Aug 18 - Au
Food and non-alcoholic beverages	1,087.7	-0.10	1.98	2.46	1.92
Food	964.1	-0.10	1.89	2.35	1.80
Non-alcoholic beverages	123.6	0.00	0.10	0.11	0.12
	70.2				
Alcoholic beverages and tobacco Alcoholic beverages for consumption at home	78.2 62.2	0.00 -0.001	0.14 0.12	0.14 0.12	0.11 0.09
Tobacco	16.0	0.001	0.02	0.02	0.03
1000000	10.0	0.001	0.02	0.02	0.02
Clothing and footwear	276.8	0.00	0.00	0.08	0.09
Clothing	212.8	0.00	0.02	0.09	0.08
Footwear	64.0	0.00	-0.02	-0.02	0.01
Housing	2,522.2	0.01	0.25	0.36	0.25
Actual rentals for housing	666.7	0.01	0.09	0.14	0.15
Imputed rentals for housing	34.4	0.00	0.00	0.00	0.00
Maintenance and repair of the dwelling	517.0	0.00	0.16	0.22	0.08
Water supply and miscellaneous services relating to the dwelling	463.6	0.00	0.00	0.00	0.00
Electricity, gas and other fuels	840.4	0.00	0.00	0.00	0.02
Herrer beld an one bar			0.00		
Household operation Furniture, furnishings, carpets and other floor coverings	929.2 128.8	0.00 0.00	0.00 0.03	- 0.19 -0.01	0.02 -0.02
Household textiles	58.6	0.00	-0.03	-0.01	-0.02
Household appliances	246.0	0.00	-0.05	-0.19	-0.07
Glassware, tableware and household utensils	17.2	0.00	0.01	0.01	0.01
Tools and equipment for house and garden	58.2	0.00	-0.03	-0.02	0.01
boods and services for routine household maintenance and cleaning	420.5	0.00	0.07	0.07	0.09
Health	223.1	0.00	-0.01	-0.02	0.13
Medical products, appliances and equipment	152.3	0.00	-0.01	-0.02	0.08
Out-patient services	52.4	0.00	0.00	0.00	0.05
Other treatments	7.8	0.00	0.00	0.00	0.00
Health products and services n.e.c.	10.5	0.00	0.00	0.00	0.00
Transport	1,257.4	0.11	0.40	0.04	0.45
Purchase of vehicles	442.6	0.00	0.00	0.00	0.09
Operation of personal transport equipment	763.3	0.15	0.37	0.03	0.35
Transport services	51.5	-0.04	0.03	0.01	0.00
Communications	849.6	0.00	0.00	0.51	0.56
Telephone and telefax equipment	43.8	0.00	0.00	-0.02	-0.02
Telephone and telefax services	805.8	0.00	0.00	0.53	0.58
Recreation and culture	1,013.3	-0.26	0.00	0.16	0.08
Audio-visual, photographic and information processing equipment	58.5	0.00	-0.02	-0.04	-0.03
Other major durables for recreation and culture	20.0	0.00	0.00	-0.01	0.00
Other recreational items and equipment; gardens and pets	266.6	0.01	0.11	0.14	0.07
Recreational and cultural services	309.1	0.00	0.00	0.00	0.14
Newspapers, books and stationery	43.7	0.00	0.00	0.01	0.04
Holidays	315.4	-0.26	-0.09	0.06	-0.13
Education	98.0	0.00	0.00	0.00	0.00
Pre primary and primary education	24.0	0.00	0.00	0.00	0.00
Secondary education	43.4	0.00	0.00	0.00	0.00
Post-secondary non-tertiary education	4.6	0.00	0.00	0.00	0.00
Tertiary education	23.6	0.00	0.00	0.00	0.00
Education not definable by level	2.5	0.00	0.00	0.00	0.00
Restaurants and hotels	442.0	0.00	0.14	0.17	0.22
Catering services	429.8	0.00	0.13	0.16	0.22
Accommodation services	12.2	0.00	0.01	0.01	0.00
Miscellaneous goods and services	1,222.6	-0.02	0.33	0.29	0.27
Personal care	427.1	-0.02	0.12	0.29	0.27
Personal effects n.e.c.	106.6	-0.01	0.21	0.16	0.12
Social protection	78.2	0.00	0.00	0.00	0.00
Insurance	610.7	0.00	0.00	0.00	0.00
CPI	10,000.0	-0.25	3.24	4.01	4.10

Table 17: Monthly & Yearly Effect on the Consumer Price Index per sector and category for August 2019 (Jun 2019 = 100)

Table 18: Monthly & Yearly Changes (%) and effect in the Food & catering services for August 2019, Total Population										
		% (Change	Effect						
DESCRIPTION	WEIGHT coefficient	Monthly	End of period	Monthly	End of period					
Food & catering services	1,517.5	Jul - Aug -0.4	Aug 18 - Aug 19	Jul - Aug -0.100	Aug 18 - Aug 19 2.616					
Food at home	1,087.7	-0.4	15.6	-0.100	2.455					
Bread and cereals										
Rice	178.1 23.5	- 1.2 0.3	3.4 5.4	- 0.026 0.001	0.072 0.017					
Bread	72.1	-2.7	2.1	-0.026	0.020					
Pasta products	9.2	0.6	8.5	0.001	0.008					
Other cereals and cereal products	73.3	-0.2	3.5	-0.002	0.027					
Meat	242.5	-0.1	5.2	-0.002	0.157					
Bovine	67.3	-0.6	3.6	-0.005	0.030					
Swine	25.5	0.7	6.6	0.002	0.020					
Poultry	75.7	0.0	0.1	0.000	0.001					
Other meat and meat preparations	74.0	0.1	12.2	0.001	0.107					
Fish and other seafood	49.0	1.8	8.6	0.010	0.046					
Fish and seafood preparations	49.0	1.8	8.6	0.010	0.046					
Milk, cheese and eggs	135.3	-0.1	6.1	-0.001	0.102					
Cheese	55.4	0.6	5.1	0.005	0.040					
Eggs	16.6	-2.8	11.5	-0.004	0.016					
Milk	40.0	-0.3	5.6	-0.002	0.031					
Other milk products	23.3	-0.3	7.5	0.002	0.031					
Oils and fats	32.2 2.8	0.6	11.0 7.4	0.003	0.050					
Corn oil		-1.2		-0.001	0.003					
Butter and margarine Other oils and fats	9.2 20.1	-1.6 2.1	9.4 12.5	-0.002 0.006	0.014 0.033					
Fruit	97.6	-3.0	41.9	-0.142	1.433					
Oranges	9.4	-2.2	-11.4	-0.003	-0.016					
Bananas and plantains	19.9	2.8	18.4	0.013	0.077					
Apples	9.3	-0.4	2.6	-0.001	0.004					
Avocado	5.0	-13.8	64.4	-0.149	0.379					
Grapes	9.2	-13.0	-8.3	-0.026	-0.016					
Nuts	11.9	0.6	5.2	0.001	0.006					
Lemons and mandarins	6.0	-4.5	-9.7	-0.003	-0.007					
Cherries and strawberries	8.8	-8.5	62.5	-0.093	0.400					
Melons and watermelons	7.7	13.4	61.4	0.092	0.310					
Papayas and pineapples	6.9	3.8	51.7	0.024	0.234					
Other fruits and fruit products	3.5	1.2	48.5	0.002	0.064					
Potatoes and other tubers	18.2	7.1	20.4	0.017	0.046					
Potatoes	12.2	9.3	17.4	0.017	0.032					
Other tubers	2.0	-5.4	20.4	-0.001	0.004					
Sweet potatoes and yucca	4.0	3.1	41.8	0.001	0.011					
Vegetables	89.1	1.9	22.5	0.031	0.331					
Lettuce	6.8	0.8	67.1	0.001	0.034					
Tomatoes	9.7	13.2	10.5	0.015	0.013					
Onions and garlic	18.7	7.1	34.3	0.043	0.175					
Celery and broccoli	15.3	-7.8	10.7	-0.029	0.034					
Other vegetables	15.3	1.7	32.4	0.004	0.055					
Other preserved or processed vegetables	8.4		4.9	-0.001	0.007					
Frozen vegetable mixtures	14.8	-0.4	7.3	-0.001	0.014					
Sugar, jam, honey and other confectionery	42.0	-0.3	5.9	-0.001	0.024					
Sugar Sugar	42.0	-0.3	8.5	0.001	0.009					
	2.5	-0.2	10.3	0.000	0.003					
Jams and jellies Other confectionery products	2.5	-0.4	4.4	-0.001	0.012					
	27.05	0.1		0.001	0.012					
Food products n.e.c.	80.1	0.9	9.6	0.008	0.085					
Other food products	80.1	0.9	9.6	0.008	0.085					
Non-alcoholic beverages	123.6	0.2	7.2	0.003	0.108					
Coffee and tea	20.9	-0.5	5.0	-0.001	0.010					
Other non-alcoholic beverages	14.6	1.2	8.1	0.002	0.015					
Soft and sports drinks	31.0	0.2	4.9	0.001	0.019					
Fruit juices	57.1	0.1	8.7	0.001	0.065					
Food away from home	429.8	0.0	3.1	0.000	0.161					
Food and beverage consumption away from home	429.8	0.0	3.1	0.000	0.161					
Other goods and services	8,482.5	-0.2	1.8	-0.155	1.392					
		-0.2		0.131	0.761					
Other goods Other services	4,735.8 3,746.7	-0.8	1.7 1.8	-0.286	0.630					
CPI	10,000	-0.3	4.0	-0.255	4.007					
Source: Central Bureau of Statistics Aruba										

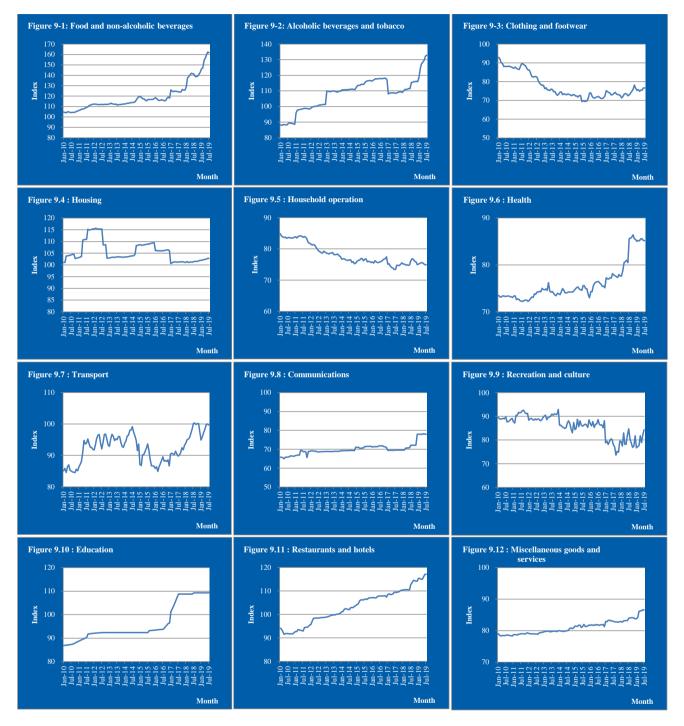
Table 19: CPI: Main indices for August 2019, Total Population (Jun 2019 = 100)

DESCRIPTION	WEIGHT	2018	2018	2019	2019	Monthly	Ytd	End of period
	coefficient	Aug	Dec	Jul	Aug	Jul - Aug	Dec - Aug	Aug 18 - Aug 19
CPI for "All items"	10,000.0	95.96	96.67	100.06	99.80	-0.3	3.2	4.0
CPI for "Goods"	6,272.5	90.85	91.13	95.72	95.77	0.1	5.1	5.4
CPI for "Durable goods"	1,293.2	72.00	71.83	72.66	72.66	0.0	1.2	0.9
CPI for "Semi-durable goods"	954.1	49.78	50.04	50.35	50.27	-0.2	0.4	1.0
CPI for "Non-durable goods"	4,025.2	106.64	107.06	113.88	113.98	0.1	6.5	6.9
CPI for "Services"	3,727.5	104.55	106.00	107.36	106.59	-0.7	0.6	1.9
CPI for "Gasoline" and "Diesel"	552.3	92.83	85.70	88.84	91.76	3.3	7.1	-1.2
CPI for "Food at home"	961.4	142.22	146.68	166.71	165.64	-0.6	12.9	16.5
CPI excluding "Food and non-alcoholic beverages"	8,874.7	91.09	91.40	92.95	92.77	-0.2	1.5	1.8
CPI excluding "Gasoline" and "Diesel"	9,447.7	96.14	97.31	100.71	100.27	-0.4	3.0	4.3
CPI excluding "Food and non-alcoholic beverages", "Gasoline" and "Diese	8,322.4	90.98	91.78	93.22	92.84	-0.4	1.1	2.0
CPI excluding "Rentals actually paid by tenants or subtenants"	9,145.8	95.83	96.56	100.18	99.89	-0.3	3.5	4.2
CPI excluding "Housing"	7,446.7	94.48	95.29	99.53	99.18	-0.4	4.1	5.0
CPI excluding "Gasoline", "Diesel", "Water" and "Electricity"	8,289.2	95.86	97.20	101.07	100.57	-0.5	3.5	4.9

Table 20: CPI: Effect on main indices for August 2019, Total Population (Jun 2019 = 100)

DESCRIPTION	WEIGHT coefficient	Monthly Jul - Aug	Ytd Dec - Aug	End of period Aug 18 - Aug 19
CPI for "All items"	10,000.0	-0.25	3.24	4.01
CPI for "Goods"	6,272.5	0.03	3.01	3.22
CPI for "Durable goods"	1,293.2	0.00	0.11	0.09
CPI for "Semi-durable goods"	954.1	-0.01	0.02	0.05
CPI for "Non-durable goods"	4,025.2	0.04	2.88	3.08
CPI for "Services"	3,727.5	-0.29	0.23	0.79
CPI for "Gasoline" and "Diesel"	552.3	0.16	0.35	-0.06
CPI for "Food at home"	961.4	-0.10	1.89	2.35
CPI excluding "Food and non-alcoholic beverages"	8,874.7	-0.15	1.25	1.55
CPI excluding "Gasoline" and "Diesel"	9,447.7	-0.42	2.89	4.07
CPI excluding "Food and non-alcoholic beverages", "Gasoline" and "Diese	8,322.4	-0.32	0.91	1.61
CPI excluding "Rentals actually paid by tenants or subtenants"	9,145.8	-0.26	3.15	3.87
CPI excluding "Housing"	7,446.7	-0.26	2.99	3.64
CPI excluding "Gasoline", "Diesel", "Water" and "Electricity"	8,289.2	-0.42	2.89	4.07

Course of Indices for 2010 up to August 2019



Glossary

The Consumer Price Index and Inflation

The Consumer Price Index (CPI) measures changes in prices of consumer goods and services by households. Consumer price indices can be intended to measure either the rate of price inflation or deflation as perceived by households or changes in their cost of living. In case of inflation, the percentage change is positive and it indicates a decrease in the purchasing power of the consumers.

Monthly percentage change

Percentage change in price indices of any aggregates of the CPI in relation to the respective price indices of the previous month.

Year-to-date (ytd)

Percentage change in price indices of any aggregates of the CPI in relation to the respective price indices of December prior to the year under review.

End of period inflation (last 12 months)

Percentage change in price indices of any aggregates of the CPI in relation to the respective price indices of the same month of the previous year.

Period average inflation (last 24 months)

The period average inflation is calculated by comparing the annual average CPI of the concerning period with the annual average CPI of the concerning period of the previous year.

Effect

Contribution of all percentage changes (of all respective aggregates) to the CPI.

Core inflation

Core inflation is a measure of inflation that excludes certain items, which face volatile price movements. Core inflation eliminates the inflation of certain products that can have temporary price shocks because these shocks can diverge from the overall trend of inflation and give a false measure of inflation. The core rate of inflation is calculated by: total inflation excluding food and energy prices. In part, that is because the core is less volatile and reflects better the relationship of supply and demand in domestic product markets. The core usually is a better measure of the basic rate of inflation that will tend to emerge in the absence of supply shocks.

Food & catering services

The "Food & catering services" index is composed of the indices for the "Food & Non-alcoholic beverages" sector ("Food at home") and the "Catering services" ("Food away from home") category.

Subsistence level

The subsistence level is the minimum level of income, which is perceived necessary to achieve an adequate standard of living in a given country. The subsistence level is usually determined by estimating the cost of all the essential resources that an average adult consumes in one month or year. This is commonly called a basic needs index, and varies according to the price of food, clothing, housing, transport and other items in the "basket". The subsistence level is monthly updated for inflation using the monthly CPI.