Consumer Price Index

July 2019





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A note to the reader

he following report presents the price statistics for July 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 July 2019 the Consumer Price Index (CPI) shows an increase of 0.1% compared to the end of June 2019. The sector which affected the CPI the most was "Recreation and culture" (2.4%), which led to an effect of 0.20 percentage points (ppts) on the Δ CPI of July 2019 (0.1%).
- Compared to July 2018 the CPI increased by 3.7%. The sector which affected the CPI the most was "Food and non-alcoholic beverages" (14.3%). Specifically, the prices of "Food" (15.0%) registered an increase and caused an effect of 2.16 ppts on the end of period inflation of July 2019 (3.7%).
- The period average inflation for the period July 2018 July 2019 is 4.2%, which is 2.9 ppts higher compared to the period average inflation for the period July 2017 July 2018 (1.3%).
- Utilities (Water and Electricity) did not register price changes in July 2019. The price of gasoline registered a decrease of 0.7% in July 2019 and caused an effect of -0.03 ppts on the Δ CPI of July 2019. The price of diesel registered a decrease of 5.2% in July 2019 and had an effect of -0.02 ppts on the Δ CPI of July 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 July 2019 is 100.06; an increase of 0.1% compared to the CPI of June 2019 (100.00). 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 3.7%, while the inflation over a period of 24 months (period average inflation) is 4.2%.

Table 1: Overview of ∆ CPI

		% Changes		Ind	dex	
Period		2019 2018		Current	Last	
Monthly	Jun - Jul	0.1	1.2	100.06	100.00	
Year-to-date	Dec - Jul	3.5	4.3	100.06	96.67	
Last 12 months ¹	Jul - Jul	3.7	5.3	100.06	96.49	
Last 24 months ²	Jul - Jul	4.2	1.3	97.42	93.54	

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 July 2018, whereas the Δ CPI for the month July for the years 2010 to 2019 is illustrated in Figure 2.

1.2 Changes in sector

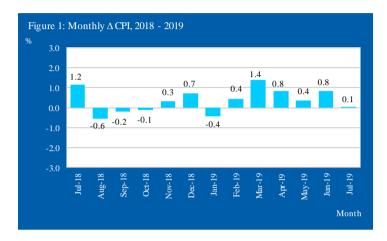
Figure 3 provides an overview of the percentage changes for the indices per sector for July 2019. The percentage change in index is further denoted as Δ I. The largest Δ I is observed for the sector "Recreation and culture" with an increase of 2.4%.

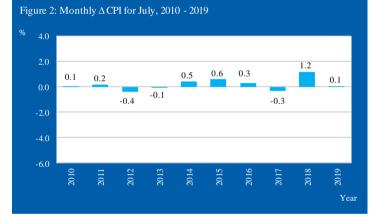
1.3 Changes in categories and subcategories

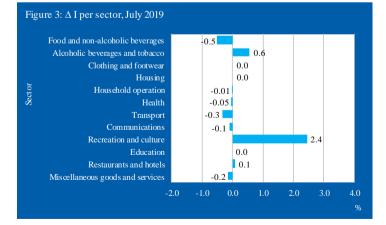
The largest positive and negative Δ I is seen in the categories "Holidays" (11.2%) and "Telephone and telefax equipment" (-7.6%). In the "Food and non-alcoholic beverages" sector a decrease of 0.6% is observed for the category "Food", while the category "Non-alcoholic beverages" registered an increase of 0.3% in July. In the "Transport" sector the major Δ I is observed for the category "Transport services" (2.4%), mainly caused by an increase in "Plane tickets" (2.2%). In the "Recreation and culture" sector the major Δ I is observed for the category "Holidays" (11.2%)¹.

The categories which influenced the CPI calculation the most are "Holidays", "Food" and "Operation of personal transport equipment", which had an effect of respectively, 0.19, -0.10 and -0.05 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 July 2018, December 2018, June 2019 and July

2019 together with corresponding weights per sector and the monthly, year-to-date (ytd), end of period and period average percentage changes for July 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 July 2019 is presented. The course of indices for 2010 - up to July 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.

S Consumer Price Index Aruba End of period change July 2019

2 End of period change of the CPI

2.1 End of period change CPI for July 2019

The CPI increased from 96.49 in July 2018 to 100.06 in July 2019, an increase of 3.7%. This Δ CPI is the second highest registered over a period of 5 years for the month July, and is 1.6 ppts lower than the Δ CPI registered in 2018 (5.3%) (see table 2).

Table 2: End of period Δ CPI for July, 2015 - 2019

Period	Δ CPI	Index
2014-2015	0.9	94.41
2015-2016	-1.1	93.34
2016-2017	-1.8	91.63
2017-2018	5.3	96.49
2018-2019	3.7	100.06

Source: Central Bureau of Statistics Aruba

2.2 Changes in sector

An overview of the percentage change per sector over the period July 2018 - July 2019 is presented in table 3. The largest Δ I is observed for the sector "Alcoholic beverages and tobacco" with an increase of 15.2%. Furthermore, increases of 14.3%, 8.0%, 5.0% and 3.9% are observed for the "Food and non-alcoholic beverages". "Communications", "Clothing and footwear" and "Restaurants and hotels" sectors, respectively. A comparison of the Δ I's for the years 2018 and 2019 is provided in figure 4.

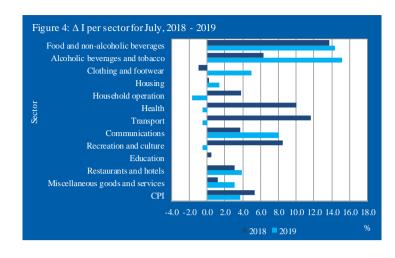
Table 3: Percentage change for July, 2018 - 2019

Sector	% Change
Food and non-alcoholic beverages	14.3
Alcoholic beverages and tobacco	15.2
Clothing and footwear	5.0
Housing	1.4
Household operation	-1.7
Health	-0.5
Transport	-0.5
Communications	8.0
Recreation and culture	-0.5
Education	0.0
Restaurants and hotels	3.9
Miscellaneous goods and services	3.1
CPI	3.7

Source: Central Bureau of Statistics Aruba

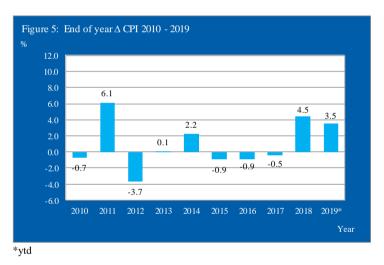
2.3 Changes in categories

The largest positive and negative Δ I in categories observed over a period of one year are respectively, "Alcoholic beverages for consumption at home" (20.1%) and "Audio-visual, photographic and information processing equipment" (-18.6%). 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 July 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 July 2019 is 3.5%.



2.5 Period average change CPI for July 2019

The period average change CPI (Δ ACPI) for July 2019 is 4.2%. Table 4 provides an overview of the Δ ACPI for the month July for the years 2015 to 2019. The \triangle ACPI for 2019 increased by 3.9 ppts compared to 2018 (1.3%).

Table 4: Overview of Δ ACPI for July, 2015 - 2019

Period	Δ ΑCPI	Index
2014-2015	1.0	93.81
2015-2016	-0.8	93.09
2016-2017	-0.8	92.37
2017-2018	1.3	93.54
2018-2019	4.2	97.42

Source: Central Bureau of Statistics Aruba

The Dureau of statistics 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 July 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
Jul-18	71.16	34.52	35.72	265.65	137.05	214.80	184.70
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

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 July 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 July 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 July 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 July 2019, it remained at Afl. 137.05.

3.4 Gasoline and Diesel

The retail price of gasoline decreased by 0.7% from 209.5 cents per liter in June 2019 to 208.0 cents per liter in July 2019. In July 2019, the retail price of diesel registered a decrease of 5.2% from 183.7 cents per liter in June 2019 to 174.2 cents per liter in July 2019.

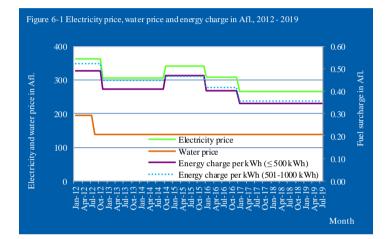
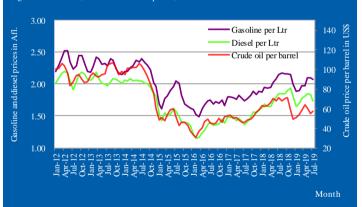


Figure 6-2 Gasoline, diesel and crude oil prices, 2012 - 2019



DUCDS CONSUMER PRICE MUCK ATUBA 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 July 2018. In July 2019 the Δ CPI of the USA, Curaçao and the Netherlands were 0.2%, -0.2% and 1.0%.

Table 6: Monthly Δ CPI 2018 - 2019 per Country

Period	Aruba	USA	Curaçao	Netherlands
Jul-18	1.5	0.0	0.4	1.1
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

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 July 2019. Aruba's monthly Δ CPI for July 2019 is 0.1 ppt lower than the Δ CPI of the USA.

Table 7: Overview of △ CPI, 2019

Period		Aruba	USA
Monthly	Jun - Jul	0.1	0.2
Year-to-date	Dec - Jul	3.5	2.1
Last 12 months ¹	Jul - Jul	3.7	1.8
Last 24 months 2	Jul - Jul	4.2	2.0

Source: Central Bureau of Statistics Aruba

² Period average inflation

The Δ CPI of Aruba over the last 12 months is 1.9 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.

2009 6.8 2010 -0.7

Period

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*	3.5	2.1

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

Aruba

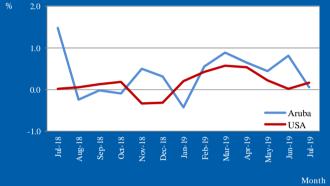
Source: Central Bureau of Statistics Aruba

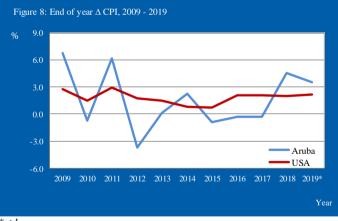
* ytd



USA

2.7





*ytd

2 "55% of Aruba's import by sea and air originates from the USA" (Source: Foreign Trade Statistics Report, 3rd Quarter 2018).

¹ End of period inflation

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 July 2019 the core inflation (measured over the period July 2018 - 2019) was 2.9%. In July 2019 the food index was 12.1%, while the energy index shows an increase of 1.9%.

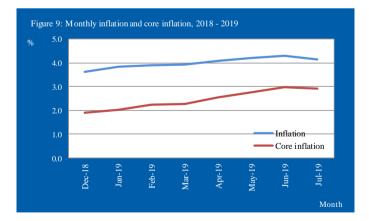
Table 9: Monthly inflation¹ and core inflation, 2018 - 2019

				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

Source: Central Bureau of Statistics Aruba

¹ Period average inflation

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

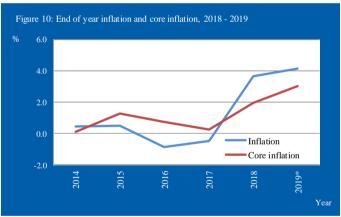
Table 10: End of year core inflation, 2014 - 2019

Period	2014	2015	2016	2017	2018	2019*
Inflation	0.4	0.5	-0.9	-0.5	3.6	4.2
Food	2.2	1.9	-0.1	0.8	12.2	12.5
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	6.7
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 **July 2019**

The "Food & catering services" index showed a decrease of 0.4% in July 2019, after an increase of 1.3% in June 2019. The index for "Food at home" showed a decrease of 0.5% in July, as four (4) of the eleven (11) "Food at home" indices decreased in July 2019. The "Potatoes and other tubers" index registered the largest decrease (-3.0%) in July 2019. Furthermore, decreases were posted in the indices for "Fruit" (-2.6%) and "Oils and fats" (-0.2%). The "Vegetables" index registered the largest increase (1.2%) in July 2019.

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

Table 11: Percentage change of Food for July 2019

Food	Weight	% Change	Effect
Food & catering services	1,492.8	-0.4	-0.091
Food at home	1,125.3	-0.5	-0.091
Bread and cereals	205.2	0.0	0.001
Meat	229.8	0.4	0.014
Fish and other seafood	56.4	0.4	0.002
Milk, cheese and eggs	140.0	0.0	-0.001
Oils and fats	31.6	-0.2	-0.001
Fruit	72.0	-2.6	-0.130
Potatoes and other tubers	18.5	-3.0	-0.008
Vegetables	75.7	1.2	0.019
Sugar, jam, honey and other confectionery	49.6	0.3	0.001
Food products n.e.c.	82.7	0.6	0.006
Non-alcoholic beverages	163.9	0.3	0.004
Food away from home	367.5	0.0	0.000
Other goods and services	8,507.2	0.2	0.147
Other goods	5,147.2	-0.2	-0.084
Other services	3,360.0	0.7	0.231
CPI	10,000.0	0.1	0.056

Source: Central Bureau of Statistics Aruba

In July 2019, "Food at home" and "Food away from home" as a group showed a decrease in price of 0.4% compared to June 2019, and had an influence of -0.09 ppts on the CPI, while the remaining goods and services, as a group, experienced an increase in price of 0.2%, causing an effect of 0.15 ppts on the CPI.

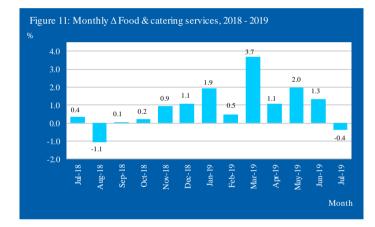
An overview of the percentage change and effect for "Food at home" and "Food away from home" for July 2019 is presented in table 12.

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

Category	Weight	% Change	Effect
Food at home	1,087.7	-0.5	-0.09
Food away from home	429.8	0.0	0.00
Total group	1,517.5	-0.4	-0.09
Remaining goods and services	8,482.5	0.2	0.15
CPI	10,000.0	0.1	0.06

Source: Central Bureau of Statistics Aruba

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



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

Over the last twelve (12) months, the "Food & catering services" has increased by 11.8%. The "Food at home" index showed an increase of 14.3%. The "Fruit" index increased by 32.6%, the largest increase among the "Food at home" food groups. The index for "Food away from home" showed no change in July 2019 and has increased by 3.8% over the last twelve (12) months. Table 18 provides an overview of the monthly and end of period percentage changes and effect for July 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 July 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 July. Over a period of one year the subsistence level increased by Afl. 321, from Afl. 4,676 in July 2018 to Afl. 4,997 in July 2019. The "Food and non-alcoholic beverages" sector shows the largest increase (Afl. 321), 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 April, 2015 - 2019

						Change in Afl.
Sector	Jul-15	Jul-16	Jul-17	Jul-18	Jul-19	Jul-18 - Jul-19
Food and non-alcoholic beverages	1,580	1,569	1,681	1,912	2,186	274
Clothing and footwear	240	248	254	251	264	13
Housing	1,439	1,401	1,337	1,340	1,358	18
Household operation	131	130	126	130	128	-2
Health	69	70	71	78	78	0
Transport	255	244	244	273	271	-2
Communications	128	129	125	129	140	11
Recreation and culture	177	183	161	175	174	-1
Education	63	64	74	75	75	0
Miscellaneous goods and services	304	306	310	313	323	10
Total	4,386	4,342	4,382	4,676	4,997	321

Source: Central Bureau of Statistics Aruba

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

Table 14: Subsistence level in Aruba (in Afl.) by family size and composition, July 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				
Jul-18	2,227	2,895	3,340	4,008	4,676				
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				

Source: Central Bureau of Statistics Aruba

7.3 Comparison of the subsistence level and minimum wage

In July 2019 the subsistence level for a single adult household is Afl. 2,379, which represents an income deficit of Afl. 617, an increase of Afl. 101 compared to the deficit observed one year ago (Afl. 516). This deficit is the highest registered over a period of five years for the month July.

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

a single adult household for July, 2015 - 2019

		Minimum	
Period	1 adult	wage	Surplus/deficit
2015	2,089	1,637	-452
2016	2,068	1,678	-390
2017	2,087	1,678	-409
2018	2,227	1,711	-516
2019	2,379	1,762	-617

Source: Central Bureau of Statistics Aruba

CDS Consumer Price Index Aruba

DESCRIPTION	WEIGHT coefficient	2018 Jul	2018 Dec	2019 Jun	2019 Jul	Monthly Jun - Jul	Ytd Dec - Jul	End of period Jul 18 - Jul 19	Period averag Jul 18 - Jul 19
Food and non-alcoholic beverages	1 097 7	141 20		162.20	161 64			14.2	12.1
Food and non-alconolic beverages Food	1,087.7 964.1			167.23		- 0.5 -0.6	13.6 14.3	14.3 15.0	12.1
Non-alcoholic beverages				124.57		0.3	6.0	8.2	8.4
Alcoholis howarages and tohassa	70 3	115 20	115 07	122 17	122.00	0.6	14.1	15.2	11.0
Alcoholic beverages and tobacco Alcoholic beverages for consumption at home		95.82		132.17 114.45		0.5	14.1	20.1	11.0
Tobacco				201.02		0.6	5.0	5.7	7.5
Clothing and footwear	276.8	72.96	76.46	76.60	76.60	0.0	0.2	5.0	3.9
Clothing		75.88	79.88	80.82	80.82	0.0	1.2	6.5	4.2
Footwear	64.0	63.25	65.09	62.56	62.56	0.0	-3.9	-1.1	2.3
Housing	2,522.2	101 /1	101 04	102 92	102 92	0.0	0.9	1.4	0.8
Actual rentals for housing				126.50		0.0	0.9	1.6	1.7
Imputed rentals for housing				105.29		0.0	0.7	1.2	1.1
Maintenance and repair of the dwelling	517.0	85.44	86.82	89.76	89.76	0.0	3.4	5.1	1.0
Water supply and miscellaneous services relating to the dwelling	463.6	95.30	95.30	95.30	95.30	0.0	0.0	0.0	0.1
Electricity, gas and other fuels	840.4	96.16	96.16	96.16	96.16	0.0	0.0	0.0	0.2
Household operation		76.20	74.94 43.47	74.92 45.54	74.91	0.0	0.0 4.7	-1.7	0.7
Furniture, furnishings, carpets and other floor coverings Household textiles		45.65 67.10	43.47 65.15	45.54 61.06	45.54 60.85	0.0 -0.3	4.7 -6.3	-0.3 -9.3	-2.2 2.2
Household appliances		53.31	49.35	47.29	47.29	0.0	-4.2	-11.3	-3.8
Glassware, tableware and household utensils		59.67	59.81	64.48	64.73	0.4	7.8	8.5	7.6
Tools and equipment for house and garden	58.2	49.51	51.02	46.85	46.74	-0.2	-8.2	-5.6	3.8
Goods and services for routine household maintenance and cleaning	420.5	104.60	104.84	106.33	106.35	0.0	1.4	1.7	2.0
Health		85.63	85.40	85.22	85.18	0.0	-0.2	-0.5	7.7
Medical products, appliances and equipment Out-patient services		89.50 77.72	89.37 77.72	88.90 77.72	88.85 77.72	-0.1 0.0	-0.5 0.0	-0.7 0.0	6.6 13.5
Other treatments	7.8	76.13	74.38	76.07	76.07	0.0	2.3	-0.1	2.1
Health products and services n.e.c.		76.13	74.38	76.07	76.07	0.0	2.3	-0.1	2.1
Transport	1,257.4	100.18	97.47	100.02	99.68	-0.3	2.6	-0.5	4.4
Purchase of vehicles		90.23	90.24	90.24	90.24	0.0	0.0	0.0	2.6
Operation of personal transport equipment				106.61		-0.7	3.3	-0.9	5.5
Transport services	51.5	86.53	75.09	86.36	88.40	2.4	15.0	2.2	0.9
Communications	849.6	72.15	77.94	78.02	77.95	-0.1	0.1	8.0	8.4
Telephone and telefax equipment	43.8	20.72	17.07	18.63	17.20	-7.6	9.1	-17.0	-19.5
Telephone and telefax services	805.8	74.95	81.25	81.25	81.25	0.0	0.0	8.4	8.9
Recreation and culture	1,013.3	84.74 67.44	81.77 58.47	82.31 54.86	84.33 54.86	2.4 0.0	0.7	- 0.5 -18.6	1.1 -7.7
Audio-visual, photographic and information processing equipment Other major durables for recreation and culture		39.87	33.19	33.65	33.65	0.0	-6.2 1.4	-18.6	-7.7
Other recreational items and equipment; gardens and pets				117.94		0.4	3.0	4.1	1.7
Recreational and cultural services		88.18	89.04	89.04	89.04	0.0	0.0	1.0	5.8
Newspapers, books and stationery	43.7	67.88	75.38	76.39	76.39	0.0	1.3	12.5	12.3
Holidays	315.4	65.31	55.25	54.61	60.72	11.2	-1.2	-7.0	-7.4
Education				109.30		0.0	0.0	0.0	0.4
Pre primary and primary education Secondary education				86.66 94.62		0.0 0.0	0.0 0.0	0.0 0.0	0.0 1.1
Post-secondary non-tertiary education				102.85		0.0	0.0	0.0	0.0
Tertiary education				160.49		0.0	0.0	0.0	0.0
Education not definable by level				109.74		0.0	0.0	0.0	0.8
Restaurants and hotels				117.03		0.1	2.5	3.9	4.3
Catering services				118.09		0.0	2.6	3.8	4.3
Accommodation services	12.2	79.09	79.27	79.64	83.29	4.6	0.5	5.3	1.2
Miscellaneous goods and services	1,222.6	83.97	83.74	86.67	86.53	-0.2	3.5	3.1	2.4
Personal care		97.97		101.75		-0.2	3.5	3.6	2.4
Personal effects n.e.c.				106.55		-0.5	22.8	16.8	14.8
Social protection				115.39		0.0	0.0	0.0	0.0
Insurance	610.7	68.97	68.97	68.97	68.97	0.0	0.0	0.0	0.0
CPI	10,000.0			100.00		0.1	3.4	3.7	4.2

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

COS CONSUMER Price INDEX Aruba

DESCRIPTION	WEIGHT coefficient	Monthly Jun - Jul	Ytd Dec - Jul	End of period Jul 18 - Jul 19	Period aver Jul 18 - Jul
	coentelent	5411 541	Dec sui		JUI 10 JUI
Food and non-alcoholic beverages	1,087.7	-0.09	2.09	2.28	1.87
Food	964.1	-0.10	1.99	2.16	1.74
Non-alcoholic beverages	123.6	0.00	0.10	0.12	0.12
Alcoholic beverages and tobacco	78.2	0.01	0.14	0.14	0.10
Alcoholic beverages for consumption at home	62.2	0.004	0.12	0.12	0.08
Tobacco	16.0	0.002	0.02	0.02	0.02
Clothing and footwear	276.8	0.00	0.00	0.10	0.08
Clothing	212.8	0.00	0.02	0.11	0.07
Footwear	64.0	0.00	-0.02	0.00	0.01
Housing	2,522.2	0.00	0.23	0.37	0.23
Actual rentals for housing	666.7	0.00	0.07	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	0.23	0.05
Water supply and miscellaneous services relating to the dwelling	463.6	0.00	0.00	0.00	0.00
Electricity, gas and other fuels	463.6 840.4	0.00	0.00	0.00	0.00
Household operation Furniture, furnishings, carpets and other floor coverings	929.2 128.8	0.00 0.00	0.00 0.03	- 0.12 0.00	0.05 -0.01
Household textiles	58.6	0.00	-0.03	-0.04	-0.01
Household appliances	246.0	0.00	-0.05	-0.15	-0.05
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
oods and services for routine household maintenance and cleaning	420.5	0.00	0.07	0.08	0.09
Health	223.1	0.00	-0.01	-0.01	0.15
Medical products, appliances and equipment	152.3	0.00	-0.01	-0.01	0.09
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
-	4 357 4		0.20	0.07	0.50
Transport	1,257.4	-0.04	0.29	-0.07	0.56
Purchase of vehicles	442.6	0.00	0.00	0.00	0.11
Operation of personal transport equipment Transport services	763.3 51.5	-0.05 0.01	0.22 0.07	-0.08 0.01	0.45 0.00
	51.5	0.01	0.07	0.01	0.00
Communications	849.6	-0.01	0.00	0.51	0.53
Telephone and telefax equipment	43.8	-0.01	0.00	-0.02	-0.02
Telephone and telefax services	805.8	0.00	0.00	0.53	0.56
Recreation and culture	1,013.3	0.20	0.27	-0.04	0.09
Audio-visual, photographic and information processing equipment	58.5	0.00	-0.02	-0.08	-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	0.13	0.05
Recreational and cultural services	309.1	0.00	0.00	0.03	0.16
Newspapers, books and stationery	43.7	0.00	0.00	0.04	0.04
Holidays	315.4	0.19	0.18	-0.15	-0.13
Education	98.0	0.00	0.00	0.00	0.01
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	0.20	0.22
Catering services	442.0	0.00	0.14	0.19	0.22
Accommodation services	429.8	0.00	0.01	0.19	0.22
Miscellaneous goods and services	1,222.6	- 0.02	0.35	0.32	0.26
Personal care	427.1	-0.01	0.14	0.16	0.12
Personal effects n.e.c.	106.6	-0.01	0.21	0.17	0.14
Social protection Insurance	78.2 610.7	0.00 0.00	0.00 0.00	0.00 0.00	0.00 0.00
	-	-			
	10,000.0	0.06	3.50	3.69	4.15

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

Table 18: Monthly & Yearly Changes (%) and effect	t in the Food 8	& catering ser	vices for July 201	9, Total Popul	ation (Jun 2019 =		
		% C	Change	Effect			
DESCRIPTION	WEIGHT coefficient	Monthly Jun - Jul	End of period Jul 18 - Jul 19	Monthly Jun - Jul	End of period Jul 18 - Jul 19		
Food & catering services	1,517.5	-0.4	11.8	-0.091	11.809		
Food at home	1.087.7	-0.5	14.3	-0.091	14.342		
Bread and cereals	178.1	0.0	6.5	0.001	6.481		
Rice	23.5	-2.2	6.0	-0.007	6.022		
Bread	72.1	0.0	8.5	0.000	8.528		
Pasta products	9.2	0.6	8.1	0.001	8.132		
Other cereals and cereal products	73.3	1.0	4.1	0.001	4.058		
Meat	242.5	0.4	5.8	0.014	5.787		
Bovine	67.3	0.6	5.0	0.005	4,964		
Swine	25.5	-0.8	6.3	-0.003	6.341		
Poultry	75.7	0.5	1.1	0.005	1.062		
	74.0	0.5	12.0	0.005	11.950		
Other meat and meat preparations	74.0	0.7	12.0	0.008	11.950		
Fish and other seafood	49.0	0.4	5.2	0.002	5.200		
Fish and seafood preparations	49.0	0.4	5.2	0.002	5.200		
Milk, cheese and eggs	135.3	0.0	6.5	-0.001	6.474		
Cheese	55.4	0.6	6.3	0.005	6.343		
Eggs	16.6	-3.0	15.6	-0.005	15.598		
Milk	40.0	-0.3	4.1	-0.002	4.057		
Other milk products	23.3	0.5	7.4	0.001	7.380		
Oils and fats	32.2	-0.2	10.6	-0.001	10.565		
Corn oil	2.8	0.5	10.1	0.000	10.113		
Butter and margarine	9.2	-1.3	9.7	-0.002	9.725		
Other oils and fats	20.1	0.4	11.1	0.001	11.115		
F	07.0	26	22.6	0.120	22.500		
Fruit	97.6	-2.6	32.6	-0.130	32.560		
Oranges	9.4	5.0	-15.2	0.006	-15.181		
Bananas and plantains	19.9	-2.5	11.2	-0.012	11.227		
Apples	9.3	1.9	7.2	0.003	7.178		
Avocado	5.0	-5.9	58.1	-0.067	58.087		
Grapes	9.2	-17.0	-6.2	-0.041	-6.217		
Nuts	11.9	0.7	8.9	0.001	8.860		
Lemons and mandarins	6.0	-3.9	-0.5	-0.003	-0.503		
Cherries and strawberries	8.8	0.5	66.3	0.005	66.250		
Melons and watermelons	7.7	-8.7	25.6	-0.066	25.569		
Papayas and pineapples	6.9	6.6	20.0	0.039	19.986		
Other fruits and fruit products	3.5	3.0	63.1	0.005	63.061		
Potatoes and other tubers	18.2	-3.0	28.9	-0.008	28.920		
Potatoes	12.2	-3.8	28.1	-0.007	28.080		
Other tubers							
	2.0	3.9	29.3	0.001	29.279		
Sweet potatoes and yucca	4.0	-2.7	33.6	-0.001	33.580		
Vegetables	89.1	1.2	19.1	0.019	19.068		
Lettuce	6.8	53.0	96.3	0.028	96.266		
Tomatoes	9.7	-1.2	0.6	-0.001	0.602		
Onions and garlic	18.7	1.1	14.8	0.007	14.829		
Celery and broccoli	15.3	-4.1	24.0	-0.016	24.014		
Other vegetables	15.3	1.8	37.7	0.004	37.713		
Other preserved or processed vegetables	8.4	0.5	-3.3	0.000	-3.293		
Frozen vegetable mixtures	14.8	-0.7	8.4	-0.001	8.443		
Sugar, jam, honey and other confectionery	42.0	0.3	6.6	0.001	6.630		
Sugar	12.1	0.4	10.4	0.000	10.383		
Jams and jellies	2.5	0.4	7.7	0.000	7.691		
Other confectionery products	27.5	0.3	5.1	0.001	5.055		
Frank warden to a s	00.1	• •		0.000	0.570		
Food products n.e.c.	80.1	0.6	9.6	0.006	9.578		
Other food products	80.1	0.6	9.6	0.006	9.578		
Non-alcoholic beverages	123.6	0.3	8.2	0.004	8.154		
Coffee and tea	20.9	0.1	6.6	0.000	6.607		
Other non-alcoholic beverages	14.6	0.3	8.1	0.001	8.053		
Soft and sports drinks	31.0	-0.5	5.6	-0.002	5.644		
Fruit juices	57.1	0.7	9.9	0.005	9.893		
Food away from home	429.8	0.0	3.8	0.000	3.846		
Food and beverage consumption away from home	429.8	0.0	3.8	0.000	3.846		
Other goods and services	8,482.5	0.2	1.5	0.147	1.538		
Other goods	4,735.8	-0.2	1.8	-0.084	1.809		
Other services	3,746.7	0.7	1.2	0.231	1.212		
CPI	10,000	0.1	3.7	0.056	3.694		
Source: Central Bureau of Statistics Aruba							

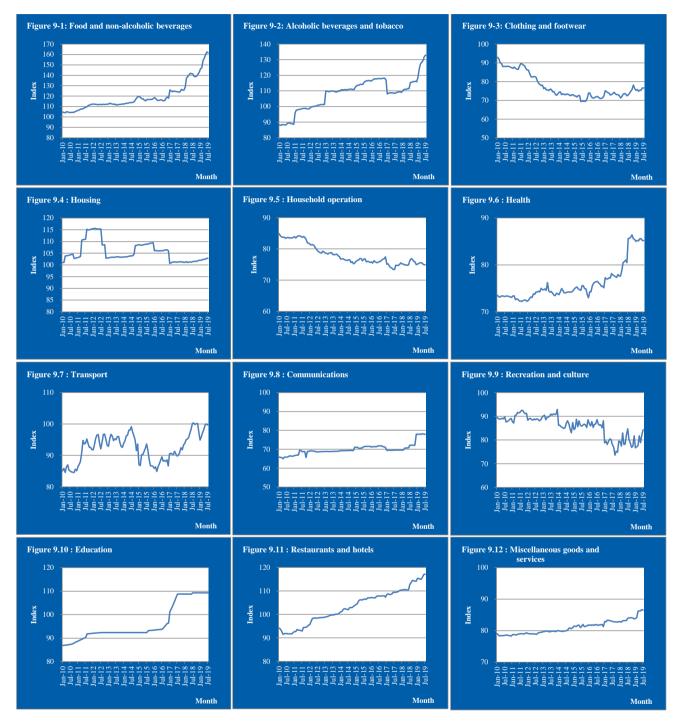
Table 19: CPI: Main indices for July 2019, Total Population (Jun 2019 = 100)

DESCRIPTION	WEIGHT	2018	2018	2019	2019	Monthly	Ytd	End of period
	coefficient	Jul	Dec	Jun	Jul	Jun - Jul	Dec - Jul	Jul 18 - Jul 19
CPI for "All items"	10,000.0	96.49	96.67	100.00	100.06	0.1	3.5	3.7
CPI for "Goods"	6,272.5	91.00	91.13	96.00	95.72	-0.3	5.0	5.2
CPI for "Durable goods"	1,293.2	71.99	71.83	72.71	72.66	-0.1	1.2	0.9
CPI for "Semi-durable goods"	954.1	49.23	50.04	50.41	50.35	-0.1	0.6	2.3
CPI for "Non-durable goods"	4,025.2	107.01	107.06	114.28	113.88	-0.4	6.4	6.4
CPI for "Services"	3,727.5	105.73	106.00	106.74	107.36	0.6	1.3	1.5
CPI for "Gasoline" and "Diesel"	552.3	91.93	85.70	89.80	88.84	-1.1	3.7	-3.4
CPI for "Food at home"	961.4	144.99	146.68	167.70	166.71	-0.6	13.7	15.0
CPI excluding "Food and non-alcoholic beverages"	8,874.7	91.41	91.40	92.78	92.95	0.2	1.7	1.7
CPI excluding "Gasoline" and "Diesel"	9,447.7	96.76	97.31	100.60	100.71	0.1	3.5	4.1
CPI excluding "Food and non-alcoholic beverages", "Gasoline" and "Diese	8,322.4	91.38	91.78	92.98	93.22	0.3	1.6	2.0
CPI excluding "Rentals actually paid by tenants or subtenants"	9,145.8	96.43	96.56	100.12	100.18	0.1	3.8	3.9
CPI excluding "Housing"	7,446.7	95.23	95.29	99.46	99.53	0.1	4.5	4.5
CPI excluding "Gasoline", "Diesel", "Water" and "Electricity"	8,289.2	96.57	97.20	100.94	101.07	0.1	4.0	4.7

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

DESCRIPTION	WEIGHT coefficient	Monthly Jun - Jul	Ytd Dec - Jul	End of period Jul 18 - Jul 19
CPI for "All items"	10,000.0	0.06	3.50	3.69
CPI for "Goods"	6,272.5	-0.17	2.98	3.07
CPI for "Durable goods"	1,293.2	-0.01	0.11	0.09
CPI for "Semi-durable goods"	954.1	-0.01	0.03	0.11
CPI for "Non-durable goods"	4,025.2	-0.16	2.84	2.87
CPI for "Services"	3,727.5	0.23	0.52	0.63
CPI for "Gasoline" and "Diesel"	552.3	-0.05	0.18	-0.18
CPI for "Food at home"	961.4	-0.10	1.99	2.16
CPI excluding "Food and non-alcoholic beverages"	8,874.7	0.15	1.41	1.41
CPI excluding "Gasoline" and "Diesel"	9,447.7	0.11	3.32	3.87
CPI excluding "Food and non-alcoholic beverages", "Gasoline" and "Diese	8,322.4	0.20	1.24	1.59
CPI excluding "Rentals actually paid by tenants or subtenants"	9,145.8	0.06	3.43	3.56
CPI excluding "Housing"	7,446.7	0.06	3.27	3.32
CPI excluding "Gasoline", "Diesel", "Water" and "Electricity"	8,289.2	0.11	3.32	3.87

Course of Indices for 2010 up to July 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.