



July 2020

INFLATION DROPS

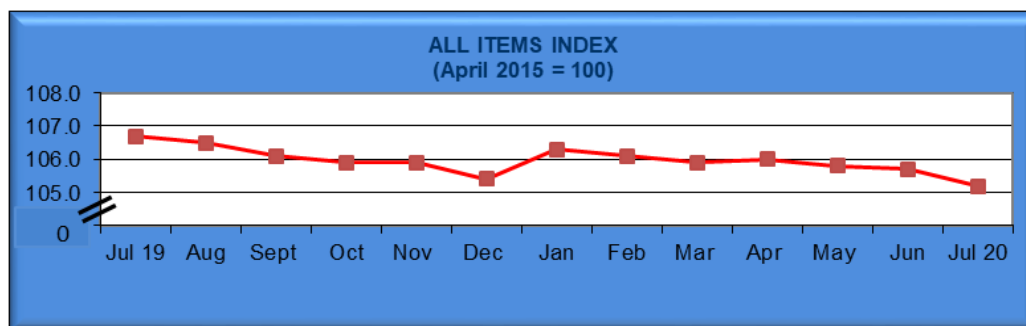
Consumers paid 1.4 per cent less than they did a year ago for the basket of goods and services included in the Consumer Price Index (CPI). July 2020 marks the first period of negative inflation since March 1965.

Between June and July 2020, the average cost of goods and services in the CPI declined 0.5 per cent. The all-items index decreased from 105.7 to 105.2 in July. This means that the basket of goods and services that cost \$100.00 in April 2015 now costs \$105.20.

YEAR-TO-YEAR ANALYSIS

The Rent sector (-3.3 per cent) impacted strongly on the annual rate of inflation as properties not subject to rent control contracted 7.6 per cent year-over-year.

The Transport & Foreign Travel and Fuel & Power sectors also impacted strongly on the annual rate of inflation, as price declines in these sectors were 8.7 per cent and 5.8 per cent, respectively.



**Annual
Inflation
Rate
-1.4%**

The compilation of the CPI involves the processing of several thousand price quotations. The Department of Statistics wishes to acknowledge the cooperation of the business community in supplying the required price data.

SUMMARY STATISTICS

Period	Monthly		Period	Quarterly	
	Index	Annual per cent Change		Index	Annual per cent Change
2019			2018		
Jul	106.7	+1.2	Q1	104.1	+1.8
Aug	106.5	+1.5	Q2	105.0	+1.8
Sept	106.1	+0.8	Q3	105.2	+1.2
Oct	105.9	+0.7	Q4	105.0	+0.9
Nov	105.9	+0.9			
Dec	105.4	+0.5	2019		
			Q1	105.3	+1.2
2020			Q2	105.7	+0.7
Jan	106.3	+1.0	Q3	106.4	+1.1
Feb	106.1	+0.9	Q4	105.7	+0.7
Mar	105.9	+0.3			
Apr	106.0	+0.0	2020		
May	105.8	+0.4	Q1	106.1	+0.8
June	105.7	+0.0	Q2	105.8	+0.1
Jul	105.2	-1.4			

MONTH-TO-MONTH ANALYSIS

Household Goods, Services & Supplies

The Household Goods, Services & Supplies sector rose 0.1 per cent in July. The average cost of detergents & bleaches was up 5.7 per cent, respectively.

Health & Personal Care

The Health & Personal Care sector was constant for month.

Food

Fuelled by the average cost of cantaloupes (+5.0 per cent), frozen broccoli (+4.7 per cent) and lettuce (+2.6 per cent); the Food sector increased 0.1 per cent in July.

Clothing & Footwear

An increase in the average cost of jewellery (+2.8 per cent) was offset by the average cost of men's shirts (-4.1 per cent), as a result the Clothing & Footwear sector was unchanged for the month.

Tobacco & Liquor

The Tobacco & Liquor sector was down 0.2 per cent in July. The average cost of beer fell 1.2 per cent.

Education, Recreation, Entertainment & Reading

The Education, Recreation, Entertainment & Reading was unchanged for the month.

Rent

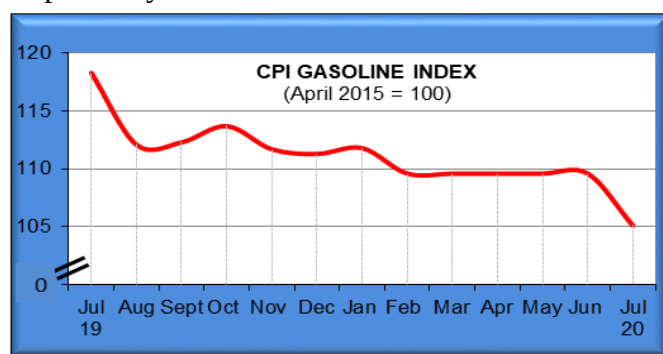
The Rent sector was down 0.4 per cent as the average cost of properties not subject to rent control decreased 1.1 per cent in July.

Fuel & Power

The fuel adjustment clause dropped 10.3 per cent in July, which led the Fuel & Power sector to decline 3.4 per cent.

Transport & Foreign Travel

The Transport & Foreign Travel sector slipped 1.9 per cent. The average price of automobiles and premium gasoline fell 4.3 per cent and 4.2 per cent, respectively.



COMPUTING PRICE INCREASES

The Department of Statistics receives calls daily requesting the rate of inflation over specific periods of time. The following calculations are provided to guide users as to how to compute rates of price increases. The monthly index numbers can be obtained from our website: <https://www.gov.bm/departments/statistics>.

A) Month-to-Month Price Change

The price change between November and October, 2015 is calculated as follows:

$$= \frac{\text{Nov 15 index} - \text{Oct 15 index}}{\text{Oct 15 index}} \times 100$$

$$= \frac{100.5 - 100.6}{100.6} \times 100$$

$$= -0.1\%$$

B) Year-to-Year Price Change

The price change between December 2015 and December, 2014 is calculated as follows:

$$= \frac{\text{Dec 15 index} - \text{Dec 14 index}}{\text{Dec 14 index}} \times 100$$

$$= \frac{100.5 - 98.7}{98.7} \times 100$$

$$= 1.8\%$$

C) Particular Period Price Change

The price change between April 2014 and January, 2016 is calculated as follows:

$$= \frac{\text{Jan 16 index} - \text{Apr 14 index}}{\text{Apr 14 index}} \times 100$$

$$= \frac{100.3 - 98.3}{98.3} \times 100$$

$$= 2.0\%$$

BERMUDA CONSUMER PRICE INDEX

APRIL 2015 = 100

	All Items	Food	Rent	Clothing & Footwear	Tobacco & Liquor	Fuel & Power	Household Goods, Services & Supplies	Transport & Foreign Travel	Education, Recreation, Entertain. & Reading	Health & Personal Care
2013 WEIGHT	1000	115	267	25	31	39	116	130	147	130
ANNUAL AVERAGE (per cent)										
2015	+1.5	+2.7	+0.6	+1.3	+1.2	-8.9	+2.1	-1.3	+0.9	+7.8
2016	+1.5	+1.9	+1.0	+0.4	+5.1	-3.3	+1.6	-2.2	+3.3	+4.5
2017	+1.9	+2.2	+0.1	+1.5	+7.8	+7.8	+0.5	+3.6	+2.0	+1.3
2018	+1.4	+2.1	+0.2	+1.5	+4.3	+5.8	-0.2	+0.3	+2.1	+3.1
2019	+1.0	+2.7	+0.9	+1.9	+3.8	+1.1	Nil	-3.0	+0.4	+3.4
MONTHLY (per cent)										
2018										
May	+0.2	+1.0	Nil	Nil	+0.2	+3.8	Nil	-1.2	+0.4	Nil
Jun	-0.1	+0.2	Nil	Nil	+0.8	+1.4	Nil	-1.8	-0.1	Nil
Jul	+0.4	+0.1	Nil	+2.5	Nil	+3.9	-0.1	+1.5	-0.1	Nil
Aug	-0.5	-0.3	-0.4	Nil	+0.2	-1.4	+0.2	-2.3	-0.1	Nil
Sept	+0.4	+0.3	Nil	Nil	+0.2	+1.5	+0.2	+1.3	+0.5	Nil
Oct	-0.1	+0.4	+0.1	-0.1	-0.1	Nil	-0.1	-1.0	Nil	Nil
Nov	-0.2	-0.1	+0.1	Nil	Nil	-0.6	Nil	-1.5	-0.1	Nil
Dec	-0.1	+0.3	Nil	Nil	+0.3	-1.8	Nil	-0.3	Nil	Nil
2019										
Jan	+0.2	+1.0	+0.5	+0.4	+0.3	Nil	+0.1	-0.7	+0.1	Nil
Feb	Nil	-0.2	+0.5	Nil	+0.2	Nil	+0.1	-0.9	Nil	Nil
Mar	+0.4	-0.1	+0.9	Nil	+0.4	Nil	Nil	+2.1	-0.4	-0.1
Apr	+0.4	-0.2	-0.1	Nil	+1.0	Nil	Nil	+0.4	+0.1	+2.3
May	-0.6	+0.3	-2.0	Nil	+0.8	+1.0	-0.2	-1.6	+0.1	Nil
Jun	+0.3	+1.0	-0.4	Nil	+1.1	+0.8	Nil	+0.7	-0.2	+1.4
Jul	+0.9	+0.4	+2.1	+0.2	-0.6	Nil	Nil	+2.7	+0.2	+0.1
Aug	-0.2	-0.1	+0.2	Nil	+0.2	Nil	+0.1	-1.7	-0.3	Nil
Sept	-0.4	+0.2	-0.2	Nil	+1.1	Nil	Nil	-3.0	+0.4	Nil
Oct	-0.2	-0.1	-0.9	+0.5	-0.3	-4.2	+0.1	+0.8	+0.1	+0.4
Nov	Nil	+0.5	-0.2	Nil	-0.7	-2.7	Nil	+0.9	Nil	Nil
Dec	-0.5	-0.1	Nil	Nil	+0.2	-1.5	-0.4	-2.8	Nil	Nil
2020										
Jan	+0.9	+0.8	+0.9	Nil	-0.4	Nil	+0.3	+2.2	+0.1	Nil
Feb	-0.2	Nil	-0.5	Nil	+0.8	Nil	+0.1	-0.7	Nil	Nil
Mar	-0.2	-0.3	-0.4	Nil	+0.6	Nil	Nil	-0.6	-0.1	Nil
Apr	+0.1	+0.8	-0.3	+0.5	+0.8	Nil	+0.1	-1.7	+0.1	+1.2
May	-0.2	+0.7	-0.9	Nil	-0.5	Nil	Nil	+0.1	Nil	Nil
Jun	-0.1	+0.2	-0.5	Nil	+0.1	Nil	Nil	-0.4	+0.1	Nil
Jul	-0.5	+0.1	-0.4	Nil	-0.2	-3.4	+0.1	-1.9	Nil	Nil
Jul '20	105.2	113.1	99.6	106.7	125.4	106.8	103.2	92.6	108.9	114.3
Jul '20 Jul '19	-1.4	+2.6	-3.3	+1.0	+1.7	-5.8	+0.3	-8.7	+0.5	+1.8

TECHNICAL NOTE

Readers should note that some price data used to produce the CPI index was not collected in July 2020 due to some unavailable goods and services and non-response from open stores (Table 1). As a result of the Coronavirus (COVID-19), in-person field collection was suspended and, where possible, prices were collected via alternative methods such as online and email.

Two of the nine sectors in July 2020 had missing prices which were imputed, Food and Transport & Foreign Travel. Table 2 provides July 2020, June 2020 and July 2019 outlets and price collection methods metadata for comparison. All missing prices were imputed by targeted mean imputation and the carry forward method.

TABLE 1. PRICES METADATA TABLE - JULY 2020, JUNE 2020 & JULY 2019

Indicators	July 2020	June 2020	July 2019
Number			
Total	2,575	2,695	2,801
Number of Prices Collected	2,320	2,440	2,801
Number of Prices Missing and Imputed	255	255	0
Percentage Distribution			
Total	100	100	100
Number of Prices Collected	91	91	100
Number of Prices Missing and Imputed	9	9	0

TABLE 2. OUTLETS AND PRICE COLLECTION METHODS METADATA - JULY 2020¹, JUNE 2020 & JULY 2019

Indicators	July 2020	June 2020	July 2019	July 2020	June 2020	July 2019
	Number			Percentage Distribution		
Outlets						
Total	78	79	80	100	100	100
Number of Outlets Available for Pricing	74	75	80	95	95	100
Number of Outlets Temporarily Closed	4	4	0	5	5	0
Price Collection Methods						
Total	78	79	80	100	100	100
Online	38	45	32	49	57	40
e-Mail	13	15	9	17	19	11
Telephone Calls	27	19	23	35	24	29
Facsimile	0	0	0	0	0	0
Personal Visit	0	0	16	0	0	20

¹ Total may not add to 100 due to rounding.

WHAT IS THE CONSUMER PRICE INDEX?

The Consumer Price Index (CPI) is a statistical tool used for measuring changes in the general level of prices of consumer goods and services purchased by private households.

The index measures price movements of a given quality and quantity of goods and services. The mix of these consumer goods and services comprising the index, are figuratively thought of as a “shopping basket.” In constructing this “shopping basket”, the selected goods and services are organized first by commodity type. They are then divided into sub-components and assigned to a major expenditure group. The Bermuda CPI is structured into nine expenditure groups or sectors:

- Food
- Rent
- Clothing & Footwear
- Tobacco & Liquor
- Fuel & Power
- Transport & Foreign Travel
- Household Goods, Services & Supplies
- Education, Recreation, Entertainment & Reading
- Health & Personal Care

CONCEPTS AND DEFINITIONS

Base Period

The time period which is used as a reference point for measuring the price change of goods and services. The base period for the Bermuda CPI is April 2015.

Price Index Number

A single figure that shows how a set of prices has changed over a specified period of time. An index number on its own means nothing. It must be compared with an index number from another period to have meaning. For example, a comparison of the index number 97.2 for January 2014 with 100.4 for January 2016, reveals that prices have increased by 3.3 percent.

Laspeyres Equation

The CPI is computed using this statistical equation. This formula calculates the total amount of money a household needs today to purchase the same basket of goods and services that it bought in the base period, April 2015.

WEIGHTED AVERAGE

A mathematical formula that takes into account the relative importance of an item's price change compared to the overall change in the sector or CPI.

Inflation

Inflation is the process of rising prices, resulting in diminishing purchasing power of a given sum of money.

Cost of Living Index

Many individuals refer to the CPI as a cost-of-living index. The CPI is an index of pure price change only. A cost-of-living index reflects the changes in buying or consumption patterns that consumers would ordinarily make to adjust to any change in the price of a good or service.

A COMPARISON OF RATES OF INFLATION (%) Selected Countries & Bermuda

	2016	2017	2018	2019	Jul 20
Bermuda	+1.5	+1.9	+1.4	+1.0	-1.4
United States¹	+1.3	+2.1	+2.4	+1.8	+1.0
Canada²	+1.4	+1.6	+2.3	+1.9	+0.1
United Kingdom³	+1.8	+3.6	+3.3	+2.6	+1.6

Sources:

1. US Bureau of Labour Statistics
2. Statistics Canada
3. UK Office of National Statistics

October 2020

Department of Statistics
Cedar Park Centre,
48 Cedar Avenue, Hamilton HM 11

P.O. Box HM 3015
Hamilton HM MX, Bermuda

Tel: (441) 297-7761, Fax: (441) 295-8390

Website: <https://www.gov.bm/departments/statistics>

