## THE CAYMAN ISLANDS' CONSUMER PRICE INDEX REPORT: SEPTEMBER 2017 <br> (Inaugural Report Using the 2016 CPI Basket) <br> (Date of release: November 24, 2017)

## CPI Increased by 1.4\% in the Third Quarter of 2017

This publication represents the first Consumer Price Index (CPI) Report using the 2016 CPI basket. A summary of the number of items in the new basket and the new weights by division relative to the old basket are presented in the Appendix ${ }^{1}$.

The overall Consumer Price Index (CPI) for the third quarter of 2017 was 101.4, higher by 1.4 percent when compared to the same quarter in 2016. A comparison with the previous quarter ending June 2017 indicates a 1.0 percent increase.

Figure 1: Inflation Rates (Sept 2013 - Sept 2017)
(\% Change in CPI of Current Quarter over Same Quarter a Year Ago)


[^0] available in www.eso.ky.

## Annual changes: September 2017 over September 2016

The overall increase of 1.4 percent was mainly due to the growth of the price indices for the following divisions:

- Transport: the index for this division rose by 5.0 percent. Transport services by air showed an increase of 10.8 percent, while both maintenance and repair and spare parts and accessories for personal transport went up by 8.2 percent and 6.5 percent, respectively. Other indices for groups that make up the division such as other purchased transport services, the purchase of motor vehicles, and fuels increased by 4.0 percent, 2.4 percent, and 2.3 percent, respectively.
- Health: there was a 4.7 percent increase in this division's price index mainly due to a significant rise of 16.5 percent for pharmaceutical products and an 8.1 percent increase for other medicinal products. These increases were however moderated as therapeutic appliances and equipment declined by 3.1 percent.
- Clothing and footwear: this division's index rose by 3.6 percent as the local prices of garments recorded an upward movement of 6.5 percent. Average prices of clothing purchased abroad increased by 1.6 percent while the price index for shoes purchased locally and abroad each rose by 1.1 percent.
- Furnishings, household equipment, and routine household maintenance: this division's index increased by 3.5 percent, largely as a result of higher prices for nondurable household goods which rose by 7.7 percent; and glassware, tableware and household utensils; and furniture and furnishings which increased by 4.8 percent. Household textiles fell by 1.7 percent and small electric household appliances also declined by 1.5 percent.
- Alcoholic beverages and tobacco: this index rose by 3.3 percent. All groups in the division experienced significant increases. However, beer that went up by 5.5 percent and tobacco by 2.9 percent recorded the highest movements among the groups that make up this division.
- Food and non-alcoholic beverages: this index rose by 0.8 percent as there were increase in the average cost of items that make up the following groups: oils and fats by 6.6 percent; fish and seafood by 5.4 percent; fruits by 3.7 percent; milk, cheese, and eggs by 1.1 percent; mineral water, soft drinks, fruit and vegetable juices by 0.6 percent; and other food products not elsewhere specified (n.e.s.) by 0.4 percent. Price declines were recorded for vegetables which went down by 0.9 percent; meat and meat products by 0.6 percent, and bread and cereals by 0.2 percent.
- Recreation and culture: this division's price index moved up by 0.5 percent. Prices for information processing equipment such as laptop computers and tablets rose by an average of 10.9 percent. Equipment for sport, camping and open-air recreation recorded a price movement of 2.2 percent. These increases were offset by declines in the price index for games, toys, and hobbies which went down by 4.6 percent, books by 1.5 percent and recreation and sporting services by 1.1 percent.
- Communication: there was a 0.3 percent rise in this index. The telephone and telefax equipment index which includes mobile and fixed line phones rose by 5.0 percent while the telephone and telefax services which include the cost of calls and mobile data fell by 0.1 percent.
- Housing, water, electricity, gas and other fuels: the price index registered a 0.1 percent rise, as actual rental paid by tenants went up by 1.6 percent and imputed rental for owner-occupied housing went up by 0.3 percent. However, average prices of water supply fell by 3.2 percent and that of electricity services decreased by 1.4 percent.
- Miscellaneous goods and services: there was a 0.1 percent rise in the index. The average price for jewellery, clocks, and watches moved up by 14.8 percent, other personal effects rose by 5.5 percent, and the hairdressing salons and personal grooming prices by 1.1 percent. For the period under review, lower insurance premiums were charged for transport, and this resulted in a fall in this index of 2.9 percent while insurance for housing contents also declined by 2.5 percent.

Meanwhile, the restaurants and hotels price index fell by 0.5 percent as average prices offered by restaurants and cafes fell by 0.7 percent. However, the average prices for meals obtained from canteens at educational institutions or work rose by 0.5 percent. The index for accommodation services which include services purchased locally and abroad increased by 0.2 percent.

There was no change in the price index for education in the third quarter of 2017 relative to the same quarter in 2016.

## Quarterly changes: September 2017 compared to June 2017

The following divisions were the main contributors to the 1.0 percent increase in the CPI for the third quarter of 2017 relative to the second quarter:

- Transport: this index increased by 5.7 percent as the average price of passenger transport by air (mainly airfares) moved up by 19.9 percent. Other services in respect of personal transport equipment grew by 3.1 percent while the index for the purchase of motor vehicles rose by 1.2 percent.
- Health: the index grew by 3.2 percent, due to the increase in the average prices of pharmaceutical products by 10.3 percent and medical services by 1.7 percent. However, there was a decline in the price index for therapeutic appliances and equipment of 3.1 percent. The index for medicinal products, dental, paramedical and hospital services were stable.
- Clothing and footwear: this index rose by 1.4 percent and the incline is traced to price increases for garments ( $2.8 \%$ ), clothing purchased abroad (1.4\%) and footwear purchased abroad ( $0.8 \%$ ). Shoes and other footwear purchased locally fell by 3.3 percent.
- Furnishings, household equipment, and routine household maintenance: this division's index rose by 0.8 percent and the main contributors were repair of household appliances rising by 3.5 percent and furniture and furnishings up by 2.5 percent. Household textiles, major household appliances, non-durable household goods, small tools and miscellaneous accessories, along with glassware, tableware and household utensils all moved by less than 1.0 percent. There was a decline of 2.9 percent in the price index for small electric household appliances.
- Food and non-alcoholic beverages: this price index had an increase of $\mathbf{0 . 2}$ percent for the quarter. The main contributors to the increase were Oils and fats ( $6.3 \%$ ), other food products (n.e.s) ( $0.2 \%$ ) and milk, cheese and eggs $(0.1 \%)$. The price level for mineral waters, soft drinks, fruit and vegetable juices rose by 1.2 percent.
- Restaurants and hotels: this price index moved up by 0.2 percent. The accommodation services index rose by 3.0 percent, and there was a minimal movement in the index for canteens at educational establishments or work of 0.5 percent. However, there was a decrease of 0.3 percent for restaurants, cafes, and the like.
- Recreation and culture: this division's index was higher by 0.1 percent. The average prices for equipment used for information processing rose by 7.5 percent, reception and recording equipment such as television sets went up by 2.0 percent and recording media by 0.3 percent. In contrast, the index for package holidays abroad fell by 0.4 percent, major durables for outdoor recreation by 0.9 percent and the average price of games, toys, and hobbies by 2.3 percent.
- Miscellaneous goods and services: this index rose by 0.1 percent mainly due to the 6.6 percent increase in the average prices for other personal effects such as handbags. Average prices of hairdressing salon services moved up by 1.2 percent, while other appliances and products for personal care grew by 0.4 percent. Insurance premiums for housing contents and vehicles declined by 2.5 percent and 1.3 percent, respectively.

The following divisions recorded declines in the indices when compared to the quarter ending June 2017:

- Housing, water, electricity, gas and other fuels: the index moved downward by 0.2 percent. The main contributors to the decline were materials for minor housing repairs and maintenance by 1.4 percent, water supply by 1.3 percent and electricity by 1.0 percent. All other groups in this division remained stable.
- Communication: this division's quarterly index fell by 1.8 percent as telephone and telefax services moved down by 2.4 percent. However, the decline in the index was moderated by the 4.8 percent rise in the index for telephone and telefax equipment.

Meanwhile, the third quarter indices for the divisions alcoholic beverages and tobacco, and education recorded no change for the quarter under review.

Table 1: Quarterly Consumer Price Index and Inflation Rates

$$
\text { September } 2016 \text { = } 100
$$

| Year | Quarter Ending | INDEX | Percentage change in CPI: |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | 3 months ago | 1 year ago |
| 2011 | March | 96.6 | 0.6 | 0.0 |
|  | June | 97.9 | 1.3 | 0.9 |
|  | September | 98.2 | 0.3 | 2.4 |
|  | December | 97.8 | -0.4 | 1.9 |
| 2012 | March | 98.3 | 0.5 | 1.8 |
|  | June | 98.8 | 0.5 | 0.9 |
|  | September | 98.2 | -0.6 | 0.00 |
|  | December | 99.8 | 1.6 | 2.0 |
| 2013 | March | 99.7 | -0.1 | 1.4 |
|  | June | 101.5 | 1.8 | 2.7 |
|  | September | 101.0 | -0.5 | 2.9 |
|  | December | 101.5 | 0.5 | 1.7 |
| 2014 | March | 102.0 | 0.5 | 2.3 |
|  | June | 102.2 | 0.2 | 0.7 |
|  | September | 102.4 | 0.2 | 1.4 |
|  | December | 102.1 | -0.3 | 0.6 |
| 2015 | March | 101.6 | -0.5 | -0.4 |
|  | June | 98.5 | -3.1 | -3.6 |
|  | September | 99.5 | 1.0 | -2.8 |
|  | December | 99.6 | 0.1 | -2.4 |
| 2016 | March | 98.8 | -0.8 | -2.8 |
|  | June | 97.7 | -1.1 | -0.8 |
|  | September | 100.0 | 2.4 | 0.5 |
|  | December | 100.0 | 0.0 | 0.4 |
| 2017 | March | 100.2 | 0.2 | 1.4 |
|  | June | 100.4 | 0.2 | 2.8 |
|  | September | 101.4 | 1.0 | 1.4 |

Table 2: Annual Averages 2007 to 2016
(September 2016 = 100)

| YEAR | INDEX | Percentage change <br> from a year ago |
| :---: | ---: | :---: |
| 2011 | 97.6 | 1.3 |
| 2012 | 98.8 | 1.2 |
| 2013 | 100.9 | 2.2 |
| 2014 | 102.2 | 1.2 |
| 2015 | 99.8 | -2.3 |
| 2016 | 99.1 | -0.7 |

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Table 3: Consumer Price Indices and Inflation by Divisions and Groups - Third Quarter 2017


Table 3: Consumer Price Indices and Inflation by Divisions and Groups - Third Quarter 2017 (cont'd)


Table 4: Consumer Price Index, Averages by Major Groups

| PERIOD / DIVISION | Food \& Nonalcoholic beverages | Alcoholic Beverages \& Tobacco | Clothing \& Footwear | Housing and Utilities | Household Equipment | Health | Transport | Communication | Recreation \& Culture | Education | Restaurants \& Hotels | Miscellaneous Goods \& Services | ALL ITEMS |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| WEIGHT | 79.6 | 6.5 | 34.3 | 394.4 | 56.4 | 24.2 | 96.1 | 69.7 | 40.5 | 27.9 | 40.2 | 130.2 | 1000 |
| 2013 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MARCH | 117.0 | 128.4 | 109.6 | 87.1 | 107.3 | 99.5 | 110.2 | 101.3 | 94.1 | 103.7 | 113.9 | 108.0 | 99.7 |
| JUNE | 117.9 | 128.2 | 108.3 | 87.9 | 107.0 | 99.5 | 111.5 | 102.2 | 94.2 | 107.8 | 106.9 | 119.2 | 101.5 |
| SEPTEMBER | 118.7 | 128.2 | 111.5 | 86.1 | 107.1 | 99.7 | 112.4 | 102.2 | 94.3 | 110.1 | 113.2 | 116.1 | 101.0 |
| DECEMBER | 119.5 | 128.2 | 110.4 | 86.5 | 107.5 | 99.2 | 114.8 | 102.0 | 93.6 | 110.1 | 118.7 | 115.4 | 101.5 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ANNUAL AVERAGE 2013 | 118.3 | 128.2 | 110.0 | 86.9 | 107.3 | 99.5 | 112.2 | 101.9 | 94.1 | 107.9 | 113.2 | 114.7 | 100.9 |
| 2014 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MARCH | 119.9 | 128.2 | 108.4 | 85.6 | 114.6 | 99.3 | 114.3 | 102.0 | 95.8 | 110.1 | 127.1 | 116.2 | 102.0 |
| JUNE | 120.6 | 127.9 | 109.1 | 86.6 | 115.0 | 99.2 | 115.3 | 103.6 | 95.9 | 110.1 | 115.8 | 115.9 | 102.2 |
| SEPTEMBER | 121.1 | 128.4 | 109.3 | 87.2 | 115.4 | 99.2 | 115.2 | 103.4 | 95.8 | 110.0 | 113.8 | 115.7 | 102.4 |
| DECEMBER | 122.4 | 128.5 | 109.7 | 86.6 | 115.4 | 99.1 | 114.5 | 102.4 | 96.8 | 113.0 | 116.1 | 113.9 | 102.1 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ANNUAL AVERAGE 2014 | 121.0 | 128.3 | 109.1 | 86.5 | 115.1 | 99.2 | 114.8 | 102.9 | 96.1 | 110.8 | 118.2 | 115.4 | 102.2 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2015 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MARCH | 123.4 | 128.6 | 110.3 | 84.7 | 115.5 | 99.7 | 114.3 | 104.5 | 97.7 | 113.0 | 116.7 | 113.5 | 101.6 |
| JUNE | 122.0 | 129.0 | 112.0 | 78.5 | 115.2 | 99.4 | 106.5 | 106.7 | 97.7 | 115.0 | 114.2 | 114.0 | 98.5 |
| SEPTEMBER | 123.1 | 129.2 | 113.6 | 79.6 | 115.2 | 99.5 | 109.2 | 106.9 | 97.5 | 116.0 | 114.4 | 114.9 | 99.5 |
| DECEMBER | 123.4 | 129.4 | 113.6 | 79.3 | 115.3 | 99.4 | 107.2 | 106.9 | 97.2 | 116.0 | 120.7 | 115.7 | 99.6 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ANNUAL AVERAGE 2015 | 123.0 | 129.0 | 112.4 | 80.5 | 115.3 | 99.5 | 109.3 | 106.3 | 97.5 | 115.0 | 116.5 | 114.5 | 99.8 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2016 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MARCH | 123.7 | 129.5 | 112.6 | 77.2 | 115.0 | 99.7 | 106.6 | 106.9 | 97.1 | 116.0 | 116.8 | 117.9 | 98.8 |
| JUNE | 121.9 | 129.4 | 112.6 | 76.1 | 115.2 | 99.6 | 106.5 | 106.8 | 99.5 | 115.9 | 113.0 | 114.4 | 97.7 |
| SEPTEMBER | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 | 100.0 |
| DECEMBER | 99.8 | 100.5 | 100.7 | 100.2 | 100.3 | 100.3 | 100.1 | 100.0 | 98.5 | 100.0 | 99.5 | 100.0 | 100.0 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| ANNUAL AVERAGE 2016 | 111.3 | 114.8 | 106.5 | 88.4 | 107.6 | 99.9 | 103.3 | 103.4 | 98.8 | 108.0 | 107.3 | 108.0 | 99.1 |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| 2017 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MARCH | 99.7 | 101.7 | 101.5 | 100.2 | 102.6 | 99.8 | 101.3 | 100.0 | 97.9 | 100.0 | 99.1 | 99.7 | 100.2 |
| JUNE | 100.6 | 103.3 | 102.2 | 100.4 | 102.7 | 101.5 | 99.3 | 102.2 | 100.3 | 100.0 | 99.3 | 100.0 | 100.4 |
| SEPTEMBER | 100.8 | 103.3 | 103.6 | 100.1 | 103.5 | 104.7 | 105.0 | 100.3 | 100.5 | 100.0 | 99.5 | 100.1 | 101.4 |
| \% CHANGE OVER PREV YEAR | 0.8 | 3.3 | 3.6 | 0.1 | 3.5 | 4.7 | 5.0 | 0.3 | 0.5 | 0.0 | -0.5 | 0.1 | 1.4 |
| \% CHANGE OVER PREV QTR | 0.2 | 0.0 | 1.4 | -0.2 | 0.8 | 3.2 | 5.7 | -1.8 | 0.1 | 0.0 | 0.2 | 0.1 | 1.0 |

## TABLE 5: Average Prices of Selected Items

 Quarter Ending September 2017| Item | Quantity | Average Prices |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | Sept 16 |  | Jun 17 | Sept 17 |
| Sliced Brown Bread | 20 oz | 2.69 | 2.69 | 2.69 |
| Enriched Parboiled Long Grain Rice | 5 lb | 9.62 | 7.52 | 7.52 |
| Cornflakes (original) | 24 oz | 5.46 | 5.39 | 5.39 |
| Stew Beef | per lb | 5.01 | 5.40 | 5.40 |
| Corned Beef - regular | 340 g | 4.19 | 4.19 | 4.19 |
| Salmon Steaks - Fresh | per lb | 10.86 | 12.02 | 12.02 |
| Canned Tuna in water | 5 oz | 1.64 | 1.67 | 1.67 |
| Eggs (Grade A Extra Large) | 1 doz | 2.29 | 2.12 | 2.12 |
| Butter - Salted | 227 g | 3.76 | 3.76 | 4.26 |
| Condensed Milk | 395 g | 1.99 | 1.99 | 1.99 |
| Vegetable Oil | 48 oz | 6.26 | 6.39 | 6.79 |
| Plantain | per lb | 1.12 | 1.11 | 1.11 |
| Potatoes - Irish | 5 lb bag | 3.52 | 3.75 | 3.75 |
| Lettuce - Iceberg | each | 2.18 | 2.31 | 2.31 |
| Sweet Potatoes | per lb | 2.79 | 2.76 | 2.76 |
| Tomatoes - Slicing | per lb | 2.66 | 3.16 | 3.16 |
| Bananas - Ripe | per lb | 0.94 | 1.04 | 1.04 |
| Apple - Red Delicious | per lb | 2.07 | 1.73 | 1.73 |
| Grapes - Red Seedless | per lb | 3.50 | 4.28 | 4.28 |
| Tea-100\% Natural | 100 bags | 5.74 | 5.68 | 5.68 |
| Coffee - Instant -Classic Roast - Bottle | 7 oz | 7.79 | 8.12 | 8.12 |
| Soda - Pepsi | 20 oz | 1.08 | 1.11 | 1.22 |
| Pure Florida Cane Sugar | 4 lb | 2.56 | 2.66 | 2.66 |
| lodized Salt | 26 oz | 1.06 | 1.06 | 1.06 |
| Petrol - Regular Full Service | per gal | 4.16 | 4.27 | 4.27 |
| Petrol - Premium Full Service | per gal | 4.42 | 4.50 | 4.50 |
| Diesel - Full Service | per gal | 3.90 | 4.17 | 4.17 |

## APPENDIX:

## NOTES ON THE INDEX COMPILATION

## 1. Data collection

This report uses the 2016 CPI basket based on the results of the 2015 Household Budget Survey (HBS) as updated between August 2016 and August 2017. The goods and services in the basket are classified into twelve (12) divisions using the United Nations' Classification of Individual Consumption According to Purpose (COICOP). In all, there are 2,227 items (7th-digit COICOP level) included in the basket collected from 203 providers/outlets in Grand Cayman, compared to 2008 when there were $\mathbf{1 , 6 4 7}$ items collected from 147 providers/outlets. The items are classified as follows:

Summary Table: Number of Items and Weights for the CPI Baskets of 2008 and 2016

|  | 2008 |  | 2016 |  |
| :--- | :---: | :---: | :---: | :---: |
|  | Number of <br> Items | Weights | Number of <br> Items | Weights |
| 01. Footal \& Non Alcoholic Beverage | $\mathbf{1 , 6 4 7}$ | $\mathbf{1 , 0 0 0}$ | $\mathbf{2 , 2 2 7}$ | $\mathbf{1 , 0 0 0}$ |
| 02. Alcohol and Tobacco | 540 | 79.6 | 551 | 66.1 |
| 03. Clothing and Footwear | 66 | 6.5 | 153 | 22.3 |
| 04. Housing and Utilities | 153 | 34.3 | 273 | 33.3 |
| 05. Household Equipment | 59 | 394.4 | 153 | 334.5 |
| 06. Health | 212 | 56.4 | 316 | 42.7 |
| 07. Transport | 111 | 24.2 | 124 | 20.9 |
| 08. Communication | 107 | 96.1 | 198 | 162.0 |
| 09. Recreation and Culture | 62 | 69.7 | 40 | 39.1 |
| 10. Education | 75 | 40.5 | 94 | 59.2 |
| 11. Restaurants and Hotels | 18 | 27.9 | 46 | 38.2 |
| 12. Miscellaneous Goods and Services | 57 | 40.2 | 103 | 83.5 |

All price indices for goods and services purchased abroad were taken from price indices published by the US Bureau of Labour Statistics.

ESO collection periods and price averaging methodologies follow updated international standards, in particular the Consumer Price Index Manual: Theory and Practice (August 2004) published by the International Labour Organization (ILO). Prices of selected items are collected every second month of the quarter. Vulnerable items which change monthly, such as vegetables and fruits, fish and meat, and gas are collected on a monthly basis. Prices across outlets are averaged using the geometric mean formula to reduce the impact of extreme or outlier prices (please see below).

## 2. CPI formula

The CPI is computed using Lowe's formula. The Lowe indices is one of the widest and popular class of price indices which is obtained by defining the index as the percentage change, between the periods compared, in the total cost of purchasing a given set of quantities, generally described as a "basket". ${ }^{2}$ The Lowe index, PLo , is defined as follows ${ }^{3}$ :
$\mathrm{P}_{\mathrm{Lo}}=\sum_{i=1}^{n} p_{i}^{t} q_{i} / \sum p_{i}^{0} q_{i}$
Where $n=$ number of products in the basket with prices $p_{i}$ and quantities $q_{i}$
$0=$ base period
$t=$ later period being compared

## Geometric mean

The price $p=[p 1, p 2, \ldots, p n]$ for each item from different outlets is the average of prices of the outlets using geometric mean or the formula:
$\mathrm{p}=\left(\prod_{i=1}^{n} p_{i}\right)^{1 / \mathrm{n}}=\sqrt[n]{\mathrm{p}_{1}, \mathrm{p}_{2}, \ldots, \mathrm{p}_{\mathrm{n}}}$

All indices are calculated by the ESO using the ESO CPI software CPI-Pro.
Inflation: this refers to the percentage change in the Consumer Price Index from one period to another. Typically, this period would be a year or a quarter.

Annual Inflation Rate: the percentage change of the CPI in the quarter under review over the CPI of the same quarter a year ago. This is also known as year-on-year inflation rate.

Quarterly Inflation Rate: the percentage change of the CPI in the quarter under review over the immediate previous quarter. This is also known as quarter-on-quarter inflation rate.

[^1]
[^0]:    ${ }^{1}$ Details of the new basket are presented on 'The Cayman Islands'2016 Consumer Price Index Basket Report'

[^1]:    ${ }^{2}$ ILO (2004, p. 2). Consumer Price Index Manual: Theory and Practice
    ${ }^{3}$ Ibid , p. 3

