## THE CAYMAN ISLANDS' CONSUMER PRICE INDEX REPORT: <br> December 2011

## Consumer Price Index (CPI) increased by 1.3 percent in 2011

This report presents the average CPI in the year 2011 and the results of the December 2011 CPI Survey.

## Average CPI in 2011

The average CPI in 2011 stood at 100.2, an increase of 1.3 percent from the average CPI in 2010. Underlying this increase were upward changes in all major categories, except housing and utilities which declined by 1.0 percent:

- Transportation, 10.6 percent;
- Food and non-alcoholic beverages, 3.5 percent;
- Communication, 1.3 percent;
- Household equipment, 1.0 percent;
- Restaurants and hotels, 1.0 percent;
- Health, 1.0 percent;
- Miscellaneous good and services, 0.9 percent;
- Recreation and culture, 0.5 percent;
- Alcoholic beverages and tobacco, 0.3 percent; and
- Clothing and footwear, 0.1 percent.

The 1.3 percent average inflation in 2011 was generated amidst an increasing trend in the first three quarters: from 0.03 percent in March 2011, the inflation rate inched up to 1.0 percent in June and strengthened to 2.4 percent in September.

Fuel prices explained a significant part of the increase in transportation in 2011. The average cost of fuel rose by 25.0 percent in 2011 compared to 2010.

The average inflation in 2011 is also higher than in 2010 (0.3\%).

Figure 1: Inflation Rates
(\% Change in CPI of Current Quarter Over Same Quarter A Year Ago)


## December 2011 CPI: annual changes from December 2010

The upward movement of the CPI in the fourth quarter of 2011 by 1.9 percent compared to the fourth quarter of 2010 is traced to the increase in prices of the following divisions:

- Transportation: this price index increased by 8.7 percent due mainly to a significant increase in the average cost of operations of personal transport equipment ( $11.3 \%$ ) associated with the surge in fuel prices ( $18.4 \%$ ). Transport services ( $5.5 \%$ ) and purchase of vehicles $(1.0 \%)$ also posed additional pressures.
- Food and non-alcoholic beverages: the average price of this index increased by 5.6 percent resulting from a number of groups led by fish and seafood ( $15.4 \%$ ), coffee, tea and cocoa ( $7.6 \%$ ), food products not elsewhere classified ( $6.5 \%$ ) and oils and fats ( $6.4 \%$ ).
- Communication: this division's average price increased by 2.2 percent due to movements across all groups, led by telephone and telefax equipment (7.4\%), followed by telephone and telefax services and postal services with 2.2 percent and 2.0 percent respectively.
- Household equipment: this division's index inched upward by 1.6 percent, mainly due to a sharp increase in the average price of glassware, tableware and household utensils (31.0\%). Household textiles also recorded an average increase of 7.4 percent.
- Health: the price index increased by 1.2 percent due to higher average price of outpatient services $(2.1 \%)$ and hospital services $(1.1 \%)$, while the average price of medical products, appliances and equipment decreased by 1.7 percent.
- Clothing and footwear: the overall price index stood at 102.2. This was $\mathbf{1 . 1}$ percent above the level in December 2010 due to increases in the average cost of clothing (1.6\%).
- Housing and utilities ${ }^{1}$ : this division's index inched upwards by 1.0 percent, mainly due to an increase in the average cost of electricity, gas and other fuels (15.7\%) and water supply and miscellaneous services ( $11.7 \%$ ). In addition, increases were also recorded for actual rentals for housing ( $1.4 \%$ ) and maintenance and repair of dwelling ( $1.2 \%$ ).
- Alcohol and tobacco: this price index increased by 0.6 percent, as prices of alcoholic beverages rose on average by 0.7 percent as compared to December 2010, while tobacco products recorded no change.

On the other hand the following divisions showed declines:

- Miscellaneous goods and services: the downward change of this index by 1.0 percent is correlated mainly with price decreases for insurance (2.9\%) and personal effects not elsewhere classified ( $1.1 \%$ ). These decreases were partially offset by increase for other services not elsewhere classified (4.5\%).
- Recreation and culture: this index decreased by 0.5 percent largely coming from audiovisual, photographic and information processing equipment ( $-3.4 \%$ ), recreational and cultural services $(-0.6 \%)$ and the average cost of newspapers, books and stationery (-0.3 \%).
- Restaurants and hotels: this price index also dropped by 0.5 percent, driven by a 3.9 percent decrease in the average cost for accommodation services. Catering services recorded no change for this period.

Education was the only division that showed no change in the average prices between December 2011 and December 2010.

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## December 2011 CPI: quarterly changes from September 2011

The December 2011 CPI decreased by 0.4 percent compared to the September 2011 CPI as the price indices of the following major categories receded:

- Restaurants and hotels: this price index fell by 2.6 percent, driven by a decrease in the average cost of accommodation services (-17.6\%).
- Housing and utilities: this price index, which accounts for approximately two-fifths of the CPI basket, declined by 1.2 percent. This was primarily due to the downward movement in the average prices of imputed rentals for owner-occupied housing ( $-1.9 \%$ ) and actual rentals for housing ( $-1.8 \%$ ). These movements offset the increase in the average cost of maintenance and repair of dwelling (1.9\%).
- Transport: this division's index fell by 0.8 percent mainly due to decreases in the average cost of transport services ( $-1.5 \%$ ) and operation of personal transport equipment (-0.5\%).
- Household equipment: the overall price index stood at 103.3. This was $\mathbf{0 . 2}$ percent below the level in September 2011 due to decreases in the average cost of furniture and furnishings ( $-2.7 \%$ ) and household appliances (-1.1\%).

On the other hand, the following major divisions were higher in December 2011 compared to September 2011:

- Clothing and footwear: this rose by $\mathbf{1 . 2}$ percent due to an increase in the average cost of clothing ( $1.5 \%$ ) amidst a decrease by 0.6 percent in the price index for footwear.
- Food and non-alcoholic beverages: the average price of this index increased by 1.0 percent resulting from a number of groups led by oils and fats (4.0\%); sugars, jam, honey, chocolate and confectionery ( $3.9 \%$ ); and fish and seafood ( $3.7 \%$ ). These were partially offset by price changes for fruits ( $-3.7 \%$ ), and milk, cheese and egg $(-0.4 \%)$.
- Miscellaneous goods and services: the upward movement of this price index by 0.4 percent resulted from a moderate increase for the price of insurance ( $1.2 \%$ ).
- Communication: this division's index marginally moved up by 0.2 percent as all groups in this division rose, led by telephone and telefax equipment (7.4\%) followed by postal services $(2.1 \%)$ and telephone and telefax services ( $0.2 \%$ ).
- Alcohol and tobacco: this price index inched up by 0.2 percent, as prices of alcohol beverages rose on average by 0.2 percent as compared to September 2010, while tobacco products remained stable.
- Recreation and culture: this price index moved up by 0.1 percent the quarter ending December 2011 compared to September 2011. Mild increases were recorded in the average cost of newspapers, books and stationery ( $0.8 \%$ ) and other recreational items associated with gardens and pets $(0.2 \%)$.

Meanwhile, the education index was stable as school fees remained unchanged from the previous quarter. Similarly, the CPI for health was unchanged from September 2011.

Table 1: Quarterly Consumer Price Index and Inflation Rates
JUNE $2008=100$

| Year | Quarter Ending | INDEX | Percentage change in CPI: |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  |  | 3 months ago | 1 year ago |
| 2001 | March | 80.3 | 0.5 | 1.8 |
|  | June | 80.5 | 0.2 | 1.8 |
|  | September | 79.9 | -0.7 | 0.3 |
|  | December | 80.5 | 0.8 | 0.8 |
| 2002 | March | 82.0 | 1.9 | 2.1 |
|  | June | 82.0 | 0.0 | 1.9 |
|  | September | 82.3 | 0.4 | 3.0 |
|  | December | 82.9 | 0.7 | 3.0 |
| 2003 | March | 82.2 | -0.8 | 0.2 |
|  | June | 82.5 | 0.4 | 0.6 |
|  | September | 82.9 | 0.5 | 0.7 |
|  | December | 83.4 | 0.6 | 0.6 |
| 2004 | March | 83.2 | -0.2 | 1.2 |
|  | June | 84.2 | 1.2 | 2.1 |
|  | September | 85.7 | 1.8 | 3.4 |
|  | December | 92.7 | 8.2 | 11.2 |
| 2005 | March | 92.7 | 0.0 | 11.4 |
|  | June | 92.5 | -0.2 | 9.9 |
|  | September | 93.1 | 0.6 | 8.6 |
|  | December | 92.7 | -0.4 | 0.0 |
| 2006 | March | 91.9 | -0.9 | -0.9 |
|  | June | 93.3 | 1.5 | 0.9 |
|  | September | 94.4 | 1.2 | 1.4 |
|  | December | 94.2 | -0.2 | 1.6 |
| 2007 | March | 95.9 | 1.8 | 4.4 |
|  | June | 96.3 | 0.4 | 3.2 |
|  | September | 96.7 | 0.4 | 2.4 |
|  | December | 95.8 | -0.9 | 1.7 |
| 2008 | March | 99.2 | 3.5 | 3.4 |
|  | June | 100.0 | 0.8 | 3.8 |
|  | September | 101.8 | 1.8 | 5.3 |
|  | December | 99.5 | -2.3 | 3.9 |
| 2009 | March | 98.8 | -0.8 | -0.4 |
|  | June | 98.8 | 0.1 | -1.2 |
|  | September | 98.7 | -0.2 | -3.1 |
|  | December | 98.2 | -0.5 | -1.3 |
| 2010 | March | 99.1 | 0.9 | 0.4 |
|  | June | 99.5 | 0.4 | 0.7 |
|  | September | 98.4 | -1.1 | -0.3 |
|  | December | 98.5 | 0.1 | 0.3 |
| 2011 | March | 99.2 | 0.7 | 0.03 |
|  | June | 100.5 | 1.4 | 1.0 |
|  | September | 100.8 | 0.3 | 2.4 |
|  | December | 100.4 | -0.4 | 1.9 |

Table 2
CAYMAN ISLANDS CONSUMER PRICE INDEX
ANNUAL AVERAGES 1995 TO 2010
(June $2008=100$ )

| YEAR | INDEX | Percentage change <br> from a year ago |
| :---: | ---: | :---: |
| 1995 | 66.7 |  |
| 1996 | 68.4 | 2.5 |
| 1997 | 70.3 | 2.7 |
| 1998 | 72.4 | 3.0 |
| 1999 | 77.3 | 6.9 |
| 2000 | 79.4 | 2.7 |
| 2001 | 80.3 | 1.1 |
| 2002 | 82.3 | 2.5 |
| 2003 | 82.8 | 0.5 |
| 2004 | 86.5 | 4.5 |
| 2005 | 92.8 | 7.3 |
| 2006 | 93.5 | 0.8 |
| 2007 | 96.2 | 2.9 |
| 2008 | 100.1 | 4.1 |
| 2009 | 98.6 | -1.5 |
| 2010 | 98.9 | 0.3 |
| 2011 | 100.2 | 1.3 |

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TABLE 3: CONSUMER PRICE INDICES AND INFLATION BY DIVISIONS AND GROUPS - FOURTH QUARTER 2011


Table 4: Consumer Price Index, Averages by Major Groups
(JUNE 2008 = 100)

| 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 |
| 2009 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MARCH | 105.9 | 104.4 | 102.4 | 96.2 | 101.8 | 95.6 | 89.3 | 98.4 | 98.3 | 101.8 | 108.8 | 104.1 | 98.8 |
| JUNE | 106.9 | 104.6 | 102.4 | 95.2 | 101.6 | 96.3 | 90.8 | 101.6 | 98.5 | 102.0 | 107.1 | 104.3 | 98.8 |
| SEPTEMBER | 105.6 | 104.1 | 100.3 | 94.9 | 100.9 | 97.2 | 92.7 | 99.5 | 97.6 | 103.5 | 109.7 | 104.5 | 98.7 |
| DECEMBER | 105.1 | 104.7 | 99.9 | 93.8 | 100.5 | 97.1 | 93.2 | 102.7 | 96.7 | 103.5 | 109.2 | 103.1 | 98.2 |
| ANNUAL AVERAGE 2009 | 105.9 | 104.5 | 101.2 | 95.0 | 101.2 | 96.6 | 91.5 | 100.5 | 97.7 | 102.7 | 108.7 | 104.0 | 98.6 |
| 2010 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MARCH | 107.5 | 114.5 | 99.8 | 93.5 | 100.8 | 97.4 | 96.1 | 102.8 | 98.1 | 103.5 | 116.4 | 104.1 | 99.1 |
| JUNE | 110.6 | 115.3 | 102.1 | 93.1 | 102.9 | 97.7 | 97.4 | 102.7 | 97.5 | 103.5 | 113.6 | 105.0 | 99.5 |
| SEPTEMBER | 109.3 | 115.6 | 101.1 | 89.1 | 101.8 | 97.8 | 100.5 | 102.9 | 100.1 | 105.4 | 113.4 | 106.4 | 98.4 |
| DECEMBER | 108.6 | 115.1 | 101.1 | 89.2 | 101.7 | 97.8 | 101.8 | 102.1 | 99.7 | 105.4 | 113.3 | 107.0 | 98.5 |
| ANNUAL AVERAGE 2010 | 109.0 | 115.1 | 101.0 | 91.2 | 101.8 | 97.7 | 98.9 | 102.6 | 98.9 | 104.5 | 114.2 | 105.6 | 98.9 |
| 2011 |  |  |  |  |  |  |  |  |  |  |  |  |  |
| MARCH | 110.4 | 115.0 | 100.2 | 89.2 | 102.5 | 97.9 | 105.0 | 102.1 | 99.5 | 105.4 | 117.5 | 107.2 | 99.2 |
| JUNE | 112.4 | 115.7 | 100.9 | 90.4 | 102.2 | 99.1 | 110.3 | 105.4 | 99.4 | 105.4 | 115.5 | 107.4 | 100.5 |
| SEPTEMBER | 113.6 | 115.5 | 101.0 | 91.2 | 103.5 | 98.9 | 111.5 | 104.1 | 99.2 | 105.4 | 115.7 | 105.6 | 100.8 |
| DECEMBER | 114.7 | 115.7 | 102.2 | 90.1 | 103.3 | 98.9 | 110.7 | 104.4 | 99.3 | 105.4 | 112.8 | 106.0 | 100.4 |
| \% CHANGE PREV YEAR | 5.6 | 0.6 | 1.1 | 1.0 | 1.6 | 1.2 | 8.7 | 2.2 | -0.5 | 0.0 | -0.5 | -1.0 | 1.9 |
| \%CHANGE PREV QTR | 1.0 | 0.2 | 1.2 | -1.2 | -0.2 | 0.0 | -0.8 | 0.2 | 0.1 | 0.0 | -2.6 | 0.4 | -0.4 |
| ANNUAL AVERAGE 2011 | 112.8 | 115.5 | 101.1 | 90.3 | 102.8 | 98.7 | 109.4 | 104.0 | 99.3 | 105.4 | 115.4 | 106.5 | 100.2 |
| \% CHANGE PREV YEAR | 3.5 | 0.3 | 0.1 | -1.1 | 1.0 | 1.0 | 10.6 | 1.3 | 0.5 | 0.9 | 1.0 | 0.9 | 1.3 |

# TABLE 5: AVERAGE PRICES OF SELECTED ITEMS 

DECEMBER 2011

| Item | Quantity | Average Prices (CI\$) |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  |  | Dec-10 | Sept-11 | Dec-11 |
| Loaf - Harddough | 2 lb | 3.63 | 3.57 | 3.57 |
| Long Grain Rice | 5 lb | 2.32 | 2.47 | 2.51 |
| Cornflakes (original) | 24 Oz | 4.98 | 5.06 | 5.06 |
| Stew Beef | per lb | 3.98 | 4.04 | 4.02 |
| Bacon | 12 oz | 4.24 | 4.34 | 4.60 |
| Snapper Fillets (frozen) | per lb | 7.27 | 9.16 | 8.99 |
| Canned Tuna in water | 6 oz | 1.44 | 1.46 | 1.52 |
| Eggs (Grade A Large) | 1 doz | 2.54 | 2.44 | 2.51 |
| Margarine -Shedds Spread | 45 oz | 4.91 | 5.12 | 5.12 |
| Fresh Milk (McArthur - Regular Vitamin D) | 1 gal | 5.86 | 6.19 | 6.19 |
| Evaporated milk (Nestle Carnation) | 14 oz | 1.06 | 1.24 | 1.66 |
| Vegetable Oil | 24 oz | 3.96 | 3.84 | 4.22 |
| Plantain | per lb | 0.96 | 0.89 | 0.96 |
| Potatoes - Irish | per lb | 1.03 | 1.21 | 1.04 |
| Lettuce - Iceburg | each | 1.79 | 2.01 | 2.20 |
| Potatoes - Sweet | per lb | 2.81 | 2.47 | 2.59 |
| Tomatoes - Slicing | per lb | 2.66 | 2.52 | 2.70 |
| Ripe Bananas | per lb | 0.86 | 0.89 | 0.81 |
| Apple - Golden Delicious | per lb | 2.27 | 2.31 | 2.35 |
| Grapes - Red-Seedless | per lb | 3.23 | 3.75 | 3.62 |
| Tea (Lipton - Decaffienated) | 48 bags | 3.74 | 3.79 | 4.02 |
| Coffee - Instant -Classic Roast - Bottle | 8 oz | 6.46 | 6.94 | 7.02 |
| Soda | 12 oz | 0.68 | 0.70 | 0.70 |
| Sugar - Light Brown (Bag) | 2 lb | 2.00 | 2.07 | 2.09 |
| Corned Beef - regular | 340 g | 3.10 | 3.42 | 3.62 |
| lodized Salt | 26 oz | 0.79 | 0.97 | 0.91 |
| Petrol - Regular Full Service | per gal | 4.79 | 5.70 | 5.58 |
| Petrol - Premium Full Service | per gal | 4.85 | 5.80 | 5.67 |
| Diesel - Full Service | per gal | 4.65 | 5.76 | 5.66 |

## NOTES ON THE INDEX COMPILATION

## 1. CPI Revision

The annual inflation presented in this report includes revisions in the CPI estimates as follows:
Revised Indices June 2009 - Sept 2010

| Year | Quarter <br> Ending |  | INDEX <br> Previous |  |
| :--- | :--- | :--- | :--- | :--- |
| 2011 | Junevised |  |  |  |

## 2. Data collection

This report uses the 2008 CPI basket based on the results of the 2007 Survey of Living Conditions/Household Budget Survey (HBS) as updated in June 2008. 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 1,393 items (7th-digit COICOP level) included in the basket collected from 147 providers/ outlets in Grand Cayman, classified as follows:

Number of Items in the $\mathbf{2 0 0 8}$ CPI Basket
Division

| 1 | Food and non-alcoholic beverages | 477 |
| ---: | :--- | ---: |
| 2 | Alcoholic beverages and tobacco | 56 |
| 3 | Clothing and footwear | 137 |
| 4 | Housing, utilities and fuels | 67 |
| 5 | Furnishings, household <br> and routine household maintenance. | equipment |
| 6 | Health | 191 |
| 7 | Transport | 47 |
| 8 | Communication | 71 |
| 9 | Recreation and Culture | 41 |
| 10 | Education | 65 |
| 11 | Restaurants and hotels | 15 |
| 12 | Miscellaneous goods and services | 130 |
|  |  | 96 |
| Total |  | 1,393 |

ESO also adopted new collection periods and price averaging methodologies in accordance with updated international standards and as advised by the Caribbean Technical Assistance Centre (CARTAC). Beginning in the fourth quarter of 2009, price data for all items are collected every second month of the quarter (whereas they were previously collected every third month). Prices of selected items that are vulnerable to monthly changes such as vegetables and fruits, fish and meat, and gas are now also 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).

## 3. 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 ${ }^{3:}$
$\mathrm{P}_{\mathrm{Lo}}=\sum_{i=1}^{n} p_{i}^{t} q_{i}^{\prime} \sum p_{i}^{0} q_{i}$

Where $\mathrm{n}=$ number of products in the basket with prices $\mathrm{p}_{\mathrm{i}}$ and quantities $\mathrm{q}_{\mathrm{i}}$
$0=$ 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:
$\mathrm{p}=\left(\prod_{i=1}^{n} p_{i}\right)^{1 / \mathrm{n}}=\sqrt[n]{\mathrm{p}_{1}, \mathrm{p}_{2}, \ldots, \mathrm{p}_{\mathrm{n}}}$
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.

Average CPI for the year: the arithmetic mean of the four quarterly CPIs during the year.

[^1]
[^0]:    ${ }^{1}$ The UN Classification of Individual Consumption According to Purpose (COICOP) name for this division is "housing, water, electricity gas and other fuels."

[^1]:    ${ }^{2}$ ILO (2004, p. 2). Consumer price index manual
    ${ }^{3}$ Ibid , p. 3

