

=====

# ***GUAM CONSUMER PRICE INDEX***

Cost of Living Section

4th Quarter 2016  
VOL. XLII No. 4

---

Bureau of Statistics and Plans  
Business and Economic Statistics Program  
Government of Guam

MANUEL Q. CRUZ  
ACTING DIRECTOR

## **DEFINITION OF THE CONSUMER PRICE INDEX**

The CONSUMER PRICE INDEX (CPI) is a measure of the average change in prices over time of goods and services purchased by households, both families and single persons living alone. The Guam 2008 CPI is based on the concept of a representative “market basket”, a sample of all goods and services that consumers purchase as determined by the 2005 Household Income and Expenditure Survey (HIES) funded by the US Department of Interior to the US Census Bureau, and is similar in design with the US CPI.

The CPI is measured from a total of 168 items from 8 major groups, and indices are computed at two different levels of aggregation. More than 1,070 price quotations are collected during the middle month of each quarter either by telephone or on-site survey by qualified price enumerators. There are approximately 212 business outlets included in the construction of the CPI, ranging from grocery, department and hardware stores to a variety of service establishments. This report provides average price changes for all groups and subgroups, and special indexes from consecutive quarters to one year earlier. An annual average and annualized inflation rate are also reported. Indexes are subject to revision.

## **HOW TO INTERPRET INDEX CHANGES**

A price change can be expressed as a percentage change between two periods, as a difference in index points between a given period and a base period assigned an index of 100.0. Thus, an index of 110.7 for a given period means the price level has increased by 10.7% from the based period of 100.0. It does not mean a 10.7% change from the immediately preceding period as shown in Example 1:

### **Example 1:**

|         |                                       |                      |                      |
|---------|---------------------------------------|----------------------|----------------------|
| Period: | 1 <sup>st</sup> Qtr.<br>(base period) | 2 <sup>nd</sup> Qtr. | 3 <sup>rd</sup> Qtr. |
| Index:  | 100.0                                 | 108.4                | 110.7                |
|         | 8.4% change                           | 2.1% change          |                      |
|         | -----                                 | -----                |                      |
|         |                                       | 10.7% change         |                      |

Any period, such as the 2<sup>nd</sup> Quarter in the next example, can be converted to a base period by dividing all indices individually by the periods' index, then multiplying the results by 100.

### **Example 2:**

|         |                                       |                                       |                      |
|---------|---------------------------------------|---------------------------------------|----------------------|
| Period: | 1 <sup>st</sup> Qtr.<br>(base period) | 2 <sup>nd</sup> Qtr.                  | 3 <sup>rd</sup> Qtr. |
| Index:  | 100.0                                 | 108.4                                 | 110.7                |
| Period: |                                       | 2 <sup>nd</sup> Qtr.<br>(base period) | 3 <sup>rd</sup> Qtr. |
| Index:  |                                       | 100.0                                 | 102.1                |
|         |                                       | -----                                 | 2% change-----       |

In example II, we dealt with a change in price index from a given quarter to the quarter immediately succeeding it – a 2.1% change from the second to the third quarter. However, many economic statistics, such as personal income, government revenues, and expenditure, are reported on an annual basis. The equivalent annual rate is used to determine what the index would be if a price change during a three-month period continues at the same rate for four quarters, a twelve-month period. The annual rate is often used to achieve uniformity in statistical expression.

Thus, a quarterly change of 1.0% is equivalent to an annual rate of 4.1%. If prices were to increase 1.0% each quarter for four quarters, the annual increase would be 4.1%. Derivation of this figure is shown in the Example III.

### **Example III:**

$$P_n = P_o(1+i)^n \text{ where}$$

|             |                          |
|-------------|--------------------------|
| $P_n$       | = equivalent annual rate |
| $P_o$       | = base index (100.0)     |
| $i$         | = current rate (1.0%)    |
| $n$         | = number of periods (4)  |
| Thus, 104.1 | = $100.0 (1 + .01)^4$    |

However, the equivalent annual rate should not be interpreted as a projection or price forecast. It is only a standard form for showing price changes that have occurred. The CPI only reports what has happened, while annual projections must be based on factors which determine future price changes.

Please see [www.bsp.guam.gov](http://www.bsp.guam.gov), for historical CPI data, and other state data resources.

#### GUAM CONSUMER PRICE INDEX

1. Number of commodity items:

| GROUP                       | GROUP WEIGHTS <sup>4</sup> | NO. OF ITEMS ALLOCATED |
|-----------------------------|----------------------------|------------------------|
| Food                        | 15.60                      | 69                     |
| Housing                     | 32.11                      | 42                     |
| Apparel & Upkeep            | 7.61                       | 23                     |
| Transportation              | 8.60                       | 4                      |
| Medical Care                | 20.42                      | 5                      |
| Recreation                  | 2.97                       | 5                      |
| Education and Communication | 2.77                       | 6                      |
| Other Goods & Services      | <u>9.92</u>                | <u>14</u>              |
|                             | 100.0                      | 168                    |

2. Base period: 4<sup>th</sup> Quarter 2007 = 100

3. Formula:

The index is computed by using base-weighted arithmetic average of prices. The formula used is either in the weighted aggregated form,

$$I_{oi} = \frac{\sum p_i q_o}{\sum p_o q_o} \times 100$$

or its equivalent, the weighted average of price relatives,

$$I_{oi} = \frac{\sum p_o q_o \left( p_i / p_o \right)}{\sum p_o q_o} \times 100$$

where  $p_i$  = the price of the commodity in the reporting period.  
 $p_o$  = the price of the commodity in the base period, and  
 $q_o$  = the quantity of commodity sold in the base period.

4. Weights:

Based on the 2005 Household Income and Expenditure Survey (HIES)

## **Guam Consumer Price Index (CPI)**

### **4<sup>th</sup> Quarter 2016**

### **Volume No. XLII, 4**

The Guam 2016 4<sup>th</sup> Quarter CPI of 123.6 shows no change over the 3<sup>rd</sup> quarter of 2016, but increased 7.1 percent when compared to the same period one year earlier. The All Items Less Food Index increased by 0.5 percent, Energy by 1.6 percent, All Items Less Food and Energy (core) by 0.1 percent and Commodities Less Food by 1.4 percent, as compared to the 3<sup>rd</sup> quarter of 2016. Services decreased by -0.1 percent over the same period. The purchasing power of the dollar remained stable at \$0.55 when compared to base year 1996. On average, the price level increased by 6.0 percent as compared to 2015, attributed entirely<sup>1</sup> to this year's increase of GMHA user fees.

The Food group index of 136.3 shows a decrease of -2.6 percent over the preceding quarter and -3.5 percent when compared to the same period one year earlier. Eggs prices decreased -5.1 percent over the preceding quarter and -36.7 percent when compared to the same period one year earlier. Fish and Seafood product prices decreased -8.8 percent over the preceding quarter and -1.2 percent when compared to the same period one year earlier. Fresh Vegetables product prices decreased -6.6 percent over the preceding quarter and -12.0 percent when compared to the same period one year earlier. Alcoholic Beverages product prices increased 3.1 percent over the preceding quarter and 0.4 percent when compared to the same period one year earlier. Meals Away From Home prices increased 0.6 percent over the preceding quarter, but decreased -2.6 percent when compared to the same period one year earlier.

The Housing group index of 113.3 shows an increase of 0.1 percent over the preceding quarter, but decreased -2.5 percent when compared to the same period one year earlier. Rent and Lodging prices increased 0.3 over the preceding quarter, but decreased -2.4 percent when compared to the same period one year earlier. Tools, Hardware and Outdoor product prices increased 1.0 percent over the preceding quarter and 5.5 percent when compared to the same period one year earlier. Electricity prices show no change over the preceding quarter, but decreased -9.5 percent when compared to the same period one year earlier.

The Transportation group index of 103.1 shows an increase of 4.6 percent over the preceding quarter and 6.0 percent when compared to the same period one year earlier. New Car prices increased 6.6 percent over the preceding quarter and 7.1 percent when compared to the same period one year earlier. Motor Fuel prices increased 4.3 percent over the preceding quarter and 2.7 percent when compared to the same period one year earlier.

The Apparel and Upkeep group index of 83.7, Recreation group index of 114.7, Education and Communication group index of 103.6 and Other Goods and Services group index of 116.6 shows an increase of 0.6, 0.3, 0.8 and 0.5 percent respectively, over the preceding quarter. The Medical Care group index of 160.8 shows a decrease of -0.1 percent over the preceding quarter.

Over 90 percent of all product prices across all groups and subgroups are included in this report.

<sup>1</sup> On average, the price level decreased by -0.8 percent as compared to 2015, absent the increase in GMHA user fees.

**TABLE A**  
**CONSUMER PRICE INDEX**  
**(4th Qtr. 2007 = 100.00)**

| GROUP                           | CY 2015<br>QUARTERS |       |       |       | CY 2016<br>QUARTERS |       |       |       |
|---------------------------------|---------------------|-------|-------|-------|---------------------|-------|-------|-------|
|                                 | 1st                 | 2nd   | 3rd   | 4th   | 1st                 | 2nd   | 3rd   | 4th   |
| <b>ALL ITEMS</b>                | 116.0               | 116.5 | 116.4 | 115.4 | 121.3               | 123.5 | 123.6 | 123.6 |
| FOOD                            | 141.7               | 140.6 | 141.6 | 141.3 | 138.5               | 141.3 | 140.0 | 136.3 |
| HOUSING                         | 116.4               | 116.1 | 116.0 | 116.2 | 113.6               | 113.5 | 113.2 | 113.3 |
| APPAREL & UPKEEP                | 83.9                | 82.0  | 81.7  | 80.3  | 82.2                | 82.9  | 83.2  | 83.7  |
| TRANSPORTATION                  | 96.5                | 102.4 | 98.3  | 97.3  | 97.9                | 97.3  | 98.6  | 103.1 |
| MEDICAL CARE                    | 119.6               | 121.8 | 121.8 | 118.0 | 151.3               | 159.8 | 161.0 | 160.8 |
| RECREATION                      | 109.5               | 109.7 | 108.1 | 107.5 | 114.8               | 114.4 | 114.3 | 114.7 |
| EDUCATION & COMMUNICATION       | 102.7               | 102.7 | 102.4 | 102.4 | 102.4               | 102.6 | 102.8 | 103.6 |
| OTHER GOODS & SERVICES          | 114.1               | 114.0 | 115.3 | 115.6 | 114.6               | 115.6 | 116.0 | 116.6 |
| <b>SPECIAL INDEXES</b>          |                     |       |       |       |                     |       |       |       |
| ALL ITEMS LESS FOOD             | 111.2               | 112.1 | 111.7 | 110.7 | 118.1               | 120.2 | 120.6 | 121.2 |
| ENERGY <sup>1</sup>             | 113.0               | 114.2 | 112.5 | 112.3 | 109.0               | 108.9 | 109.2 | 110.9 |
| ALL ITEMS LESS FOOD AND ENERGY  | 110.5               | 111.2 | 111.4 | 110.0 | 121.7               | 124.7 | 125.2 | 125.3 |
| COMMODITIES LESS FOOD           | 103.0               | 103.3 | 102.2 | 101.9 | 102.2               | 102.7 | 102.8 | 104.2 |
| SERVICES                        | 117.8               | 119.1 | 119.3 | 117.7 | 130.7               | 134.3 | 134.9 | 134.8 |
| Purchase Power of Consumer      |                     |       |       |       |                     |       |       |       |
| Dollar (3rd Qtr. 1996 = 100.00) | .59                 | .58   | .58   | .59   | .56                 | .55   | .55   | .55   |
| Dollar (4th Qtr. 2007 = 100.00) | .86                 | .86   | .86   | .87   | .82                 | .81   | .81   | .81   |

FOOTNOTE: "1" Index items selected by the Guam Energy Office

SOURCE: Cost of Living Section, Business and Economic Statistics Program, Bureau of Statistics and Plans, Government of Guam

**TABLE B**  
**CONSUMER PRICE INDEX**  
**(4th Qtr. 2007 = 100.00)**

| GROUP                          | Relative<br>Importance | Index<br>for<br>4th Qtr.<br>CY<br>2015 | Index<br>for<br>3rd Qtr.<br>CY<br>2016 | Index<br>for<br>4rd Qtr.<br>CY<br>2016 | % Change to<br>4th Qtr. 2016<br>from |                     |
|--------------------------------|------------------------|----------------------------------------|----------------------------------------|----------------------------------------|--------------------------------------|---------------------|
|                                |                        |                                        |                                        |                                        | Previous<br>Quarter                  | One Year<br>Earlier |
| All Items                      | 100.00                 | 115.4                                  | 123.6                                  | 123.6                                  | 0.0%                                 | 7.1%                |
| All Items Less Food            | 84.41                  | 110.7                                  | 120.6                                  | 121.2                                  | 0.5%                                 | 9.5%                |
| Energy <sup>1</sup>            | 24.09                  | 112.3                                  | 109.2                                  | 110.9                                  | 1.6%                                 | -1.2%               |
| All Items Less Food and Energy | 60.32                  | 110.0                                  | 125.2                                  | 125.3                                  | 0.1%                                 | 13.9%               |
| Commodities Less Food          | 37.54                  | 101.9                                  | 102.8                                  | 104.2                                  | 1.4%                                 | 2.3%                |
| Services                       | 46.86                  | 117.7                                  | 134.9                                  | 134.8                                  | -0.1%                                | 14.5%               |

| GROUP                          | Relative<br>Importance | Index<br>for<br>4th Qtr.<br>CY<br>2015 | Index<br>for<br>3rd Qtr.<br>CY<br>2016 | Index<br>for<br>4rd Qtr.<br>CY<br>2016 | % Change to<br>4th Qtr. 2016<br>from |                     |
|--------------------------------|------------------------|----------------------------------------|----------------------------------------|----------------------------------------|--------------------------------------|---------------------|
|                                |                        |                                        |                                        |                                        | Previous<br>Quarter                  | One Year<br>Earlier |
| <b>Food</b>                    | 15.60                  | 141.3                                  | 140.0                                  | 136.3                                  | -2.6%                                | -3.5%               |
| Cereals and Cereal Products    | 1.37                   | 155.2                                  | 142.9                                  | 136.3                                  | -4.6%                                | -12.2%              |
| Bakery Products                | 0.47                   | 145.6                                  | 142.4                                  | 140.9                                  | -1.1%                                | -3.2%               |
| Beef                           | 1.57                   | 145.8                                  | 142.1                                  | 139.7                                  | -1.7%                                | -4.2%               |
| Pork                           | 1.10                   | 125.5                                  | 128.0                                  | 127.3                                  | -0.5%                                | 1.4%                |
| Other Meats                    | 0.73                   | 156.9                                  | 149.6                                  | 151.1                                  | 1.0%                                 | -3.7%               |
| Poultry                        | 2.20                   | 144.5                                  | 148.8                                  | 142.2                                  | -4.4%                                | -1.6%               |
| Fish and Seafood               | 1.19                   | 139.0                                  | 150.7                                  | 137.4                                  | -8.8%                                | -1.2%               |
| Eggs                           | 0.26                   | 185.6                                  | 123.8                                  | 117.5                                  | -5.1%                                | -36.7%              |
| Dairy Products                 | 0.70                   | 138.2                                  | 140.3                                  | 139.2                                  | -0.8%                                | 0.7%                |
| Fresh Fruits                   | 0.71                   | 125.2                                  | 124.5                                  | 119.5                                  | -4.0%                                | -4.6%               |
| Fresh Vegetables               | 1.01                   | 124.5                                  | 117.3                                  | 109.6                                  | -6.6%                                | -12.0%              |
| Juice and Non-Alcoholic Drinks | 1.53                   | 128.5                                  | 130.7                                  | 130.6                                  | -0.1%                                | 1.6%                |
| Sugar and Sweets               | 0.25                   | 158.1                                  | 165.0                                  | 162.2                                  | -1.7%                                | 2.6%                |
| Fats and Oils                  | 0.13                   | 151.3                                  | 154.1                                  | 154.1                                  | 0.0%                                 | 1.9%                |
| Other Foods                    | 1.47                   | 146.2                                  | 147.7                                  | 147.4                                  | -0.2%                                | 0.8%                |
| Meals Away from Home           | 0.66                   | 144.2                                  | 139.7                                  | 140.5                                  | 0.6%                                 | -2.6%               |
| Alcoholic Beverages            | 0.25                   | 134.7                                  | 131.2                                  | 135.3                                  | 3.1%                                 | 0.4%                |

FOOTNOTE: "1" Index items selected by the Guam Energy Office

SOURCE: Cost of Living Section, Business and Economic Statistics Program, Bureau of Statistics and Plans, Government of Guam

**TABLE B**  
**(continued)**

| GROUP                           | Relative<br>Importance | Index<br>for<br>4th Qtr.<br>CY<br>2015 | Index<br>for<br>3rd Qtr.<br>CY<br>2016 | Index<br>for<br>4rd Qtr.<br>CY<br>2016 | % Change to<br>4th Qtr. 2016<br>from |                     |
|---------------------------------|------------------------|----------------------------------------|----------------------------------------|----------------------------------------|--------------------------------------|---------------------|
|                                 |                        |                                        |                                        |                                        | Previous<br>Quarter                  | One Year<br>Earlier |
|                                 |                        |                                        |                                        |                                        |                                      |                     |
| <b>HOUSING</b>                  | 32.11                  | 116.2                                  | 113.2                                  | 113.3                                  | 0.1%                                 | -2.5%               |
| Rent and Lodging                | 5.13                   | 106.0                                  | 103.2                                  | 103.5                                  | 0.3%                                 | -2.4%               |
| Home Fuel                       | 3.22                   | 138.0                                  | 138.0                                  | 138.0                                  | 0.0%                                 | 0.0%                |
| Electricity                     | 8.09                   | 106.5                                  | 96.4                                   | 96.4                                   | 0.0%                                 | -9.5%               |
| Water, Sewer and Trash          | 3.37                   | 154.6                                  | 154.5                                  | 154.5                                  | 0.0%                                 | -0.1%               |
| Floor Coverings                 | 0.17                   | 96.4                                   | 96.5                                   | 96.5                                   | 0.0%                                 | 0.1%                |
| Furniture and Bedding           | 0.75                   | 59.1                                   | 56.8                                   | 55.5                                   | -2.3%                                | -6.1%               |
| Appliances                      | 0.93                   | 127.9                                  | 125.9                                  | 125.7                                  | -0.2%                                | -1.7%               |
| Tools, Hardware, Outdoor Equip. | 0.91                   | 108.2                                  | 113.0                                  | 114.1                                  | 1.0%                                 | 5.5%                |
| Housekeeping Supplies           | 7.95                   | 109.6                                  | 108.9                                  | 109.0                                  | 0.1%                                 | -0.5%               |
| Housekeeping Operations         | 1.58                   | 133.1                                  | 136.4                                  | 136.4                                  | 0.0%                                 | 2.5%                |

| GROUP                        | Relative<br>Importance | Index<br>for<br>4th Qtr.<br>CY<br>2015 | Index<br>for<br>3rd Qtr.<br>CY<br>2016 | Index<br>for<br>4rd Qtr.<br>CY<br>2016 | % Change to<br>4th Qtr. 2016<br>from |                     |
|------------------------------|------------------------|----------------------------------------|----------------------------------------|----------------------------------------|--------------------------------------|---------------------|
|                              |                        |                                        |                                        |                                        | Previous<br>Quarter                  | One Year<br>Earlier |
|                              |                        |                                        |                                        |                                        |                                      |                     |
| <b>APPAREL &amp; UPKEEP</b>  | 7.61                   | 80.3                                   | 83.2                                   | 83.7                                   | 0.6%                                 | 4.2%                |
| Men's Apparel                | 2.09                   | 92.8                                   | 97.3                                   | 98.4                                   | 1.1%                                 | 6.0%                |
| Boy's Apparel                | 0.54                   | 103.2                                  | 109.2                                  | 108.4                                  | -0.7%                                | 5.0%                |
| Women's Apparel              | 2.03                   | 76.4                                   | 81.1                                   | 81.9                                   | 1.0%                                 | 7.2%                |
| Girl's Apparel               | 0.33                   | 77.3                                   | 83.5                                   | 83.5                                   | 0.0%                                 | 8.0%                |
| Footwear                     | 1.37                   | 40.5                                   | 39.3                                   | 37.8                                   | -3.8%                                | -6.7%               |
| Infant's & Toddler's Apparel | 0.38                   | 117.2                                  | 109.1                                  | 109.1                                  | 0.0%                                 | -6.9%               |
| Jewelry                      | 0.87                   | 93.2                                   | 96.4                                   | 98.6                                   | 2.3%                                 | 5.8%                |

SOURCE: Cost of Living Section, Business and Economic Statistics Program, Bureau of Statistics and Plans, Government of Guam

**TABLE B**  
**(continued)**

| GROUP                 | Relative<br>Importance | Index<br>for<br>4th Qtr. | Index<br>for<br>3rd Qtr. | Index<br>for<br>4rd Qtr. | % Change to<br>4th Qtr. 2016<br>from |          |
|-----------------------|------------------------|--------------------------|--------------------------|--------------------------|--------------------------------------|----------|
|                       |                        | CY                       | CY                       | CY                       | Previous                             | One Year |
|                       |                        | 2015                     | 2016                     | 2016                     | Quarter                              | Earlier  |
| <b>TRANSPORTATION</b> | 8.6                    | 97.3                     | 98.6                     | 103.1                    | 4.6%                                 | 6.0%     |
| New Cars              | 5.2                    | 98.4                     | 98.9                     | 105.4                    | 6.6%                                 | 7.1%     |
| Motor Fuel            | 1.4                    | 95.2                     | 93.8                     | 97.8                     | 4.3%                                 | 2.7%     |
| Car Maintenance       | 1.0                    | 97.4                     | 108.0                    | 107.5                    | -0.5%                                | 10.4%    |
| Car Insurance         | 1.0                    | 94.7                     | 94.7                     | 94.7                     | 0.0%                                 | 0.0%     |

| GROUP                            | Relative<br>Importance | Index<br>for<br>4th Qtr. | Index<br>for<br>3rd Qtr. | Index<br>for<br>4rd Qtr. | % Change to<br>4th Qtr. 2016<br>from |          |
|----------------------------------|------------------------|--------------------------|--------------------------|--------------------------|--------------------------------------|----------|
|                                  |                        | CY                       | CY                       | CY                       | Previous                             | One Year |
|                                  |                        | 2015                     | 2016                     | 2016                     | Quarter                              | Earlier  |
| <b>MEDICAL CARE</b>              | 20.42                  | 118.0                    | 161.0                    | 160.8                    | -0.1%                                | 36.3%    |
| Prescription Drugs               | 0.67                   | 136.2                    | 149.4                    | 149.4                    | 0.0%                                 | 9.7%     |
| Physician Services               | 2.07                   | 160.2                    | 184.9                    | 184.9                    | 0.0%                                 | 15.4%    |
| Other Medical Practitioner Costs | 0.47                   | 146.8                    | 146.8                    | 146.8                    | 0.0%                                 | 0.0%     |
| Hospital and Related Services    | 17.22                  | 111.5                    | 159.0                    | 158.8                    | -0.1%                                | 42.4%    |

| GROUP                | Relative<br>Importance | Index<br>for<br>4th Qtr. | Index<br>for<br>3rd Qtr. | Index<br>for<br>4rd Qtr. | % Change to<br>4th Qtr. 2016<br>from |          |
|----------------------|------------------------|--------------------------|--------------------------|--------------------------|--------------------------------------|----------|
|                      |                        | CY                       | CY                       | CY                       | Previous                             | One Year |
|                      |                        | 2015                     | 2016                     | 2016                     | Quarter                              | Earlier  |
| <b>RECREATION</b>    | 2.97                   | 107.5                    | 114.3                    | 114.7                    | 0.3%                                 | 6.7%     |
| Audio and Video      | 2.63                   | 103.7                    | 112.0                    | 111.9                    | -0.1%                                | 7.9%     |
| Pet and Pet Products | 0.19                   | 134.2                    | 136.1                    | 142.4                    | 4.6%                                 | 6.1%     |
| Sporting Goods       | 0.14                   | 141.1                    | 129.0                    | 129.0                    | 0.0%                                 | -8.6%    |

SOURCE: Cost of Living Section, Business and Economic Statistics Program, Bureau of Statistics and Plans, Government of Guam

TABLE B  
(continued)

| GROUP                                | Relative<br>Importance | Index<br>for<br>4th Qtr.<br>CY<br>2015 | Index<br>for<br>3rd Qtr.<br>CY<br>2016 | Index<br>for<br>4rd Qtr.<br>CY<br>2016 | % Change to<br>4th Qtr. 2016<br>from |                     |
|--------------------------------------|------------------------|----------------------------------------|----------------------------------------|----------------------------------------|--------------------------------------|---------------------|
|                                      |                        |                                        |                                        |                                        | Previous<br>Quarter                  | One Year<br>Earlier |
| <b>EDUCATION &amp; COMMUNICATION</b> | 2.77                   | 102.4                                  | 102.8                                  | 103.6                                  | 0.8%                                 | 1.2%                |
| Educational Books & Supplies         | 0.18                   | 126.6                                  | 128.4                                  | 128.4                                  | 0.0%                                 | 1.4%                |
| Tuition & Other School Fees          | 0.38                   | 110.4                                  | 110.8                                  | 110.8                                  | 0.0%                                 | 0.4%                |
| Telephone Services                   | 1.48                   | 104.5                                  | 105.1                                  | 105.1                                  | 0.0%                                 | 0.6%                |
| Computers                            | 0.34                   | 68.8                                   | 68.6                                   | 75.4                                   | 9.9%                                 | 9.6%                |
| Internet Services                    | 0.39                   | 104.1                                  | 104.1                                  | 104.1                                  | 0.0%                                 | 0.0%                |

| GROUP                             | Relative<br>Importance | Index<br>for<br>4th Qtr.<br>CY<br>2015 | Index<br>for<br>3rd Qtr.<br>CY<br>2016 | Index<br>for<br>4rd Qtr.<br>CY<br>2016 | % Change to<br>4th Qtr. 2016<br>from |                     |
|-----------------------------------|------------------------|----------------------------------------|----------------------------------------|----------------------------------------|--------------------------------------|---------------------|
|                                   |                        |                                        |                                        |                                        | Previous<br>Quarter                  | One Year<br>Earlier |
| <b>OTHER GOODS &amp; SERVICES</b> | 9.92                   | 115.6                                  | 116.0                                  | 116.6                                  | 0.5%                                 | 0.9%                |
| Tobacco Products                  | 1.04                   | 204.7                                  | 206.6                                  | 206.8                                  | 0.1%                                 | 1.0%                |
| Personal Care Products            | 5.36                   | 87.7                                   | 87.8                                   | 89.2                                   | 1.6%                                 | 1.7%                |
| Personal Care Services            | 0.66                   | 139.3                                  | 141.8                                  | 133.6                                  | -5.8%                                | -4.1%               |
| Miscellaneous Personal Services   | 0.16                   | 120.0                                  | 120.0                                  | 120.0                                  | 0.0%                                 | 0.0%                |
| Funeral Expenses                  | 0.93                   | 120.9                                  | 125.6                                  | 125.6                                  | 0.0%                                 | 3.9%                |
| Financial Services                | 0.47                   | 128.0                                  | 128.0                                  | 126.3                                  | -1.3%                                | -1.3%               |
| Other Special Occasions           | 1.31                   | 138.4                                  | 135.0                                  | 138.4                                  | 2.5%                                 | 0.0%                |

SOURCE: Cost of Living Section, Business and Economic Statistics Program, Bureau of Statistics and Plans, Government of Guam

TABLE C

## CONSUMER PRICE INDEX (CPI)

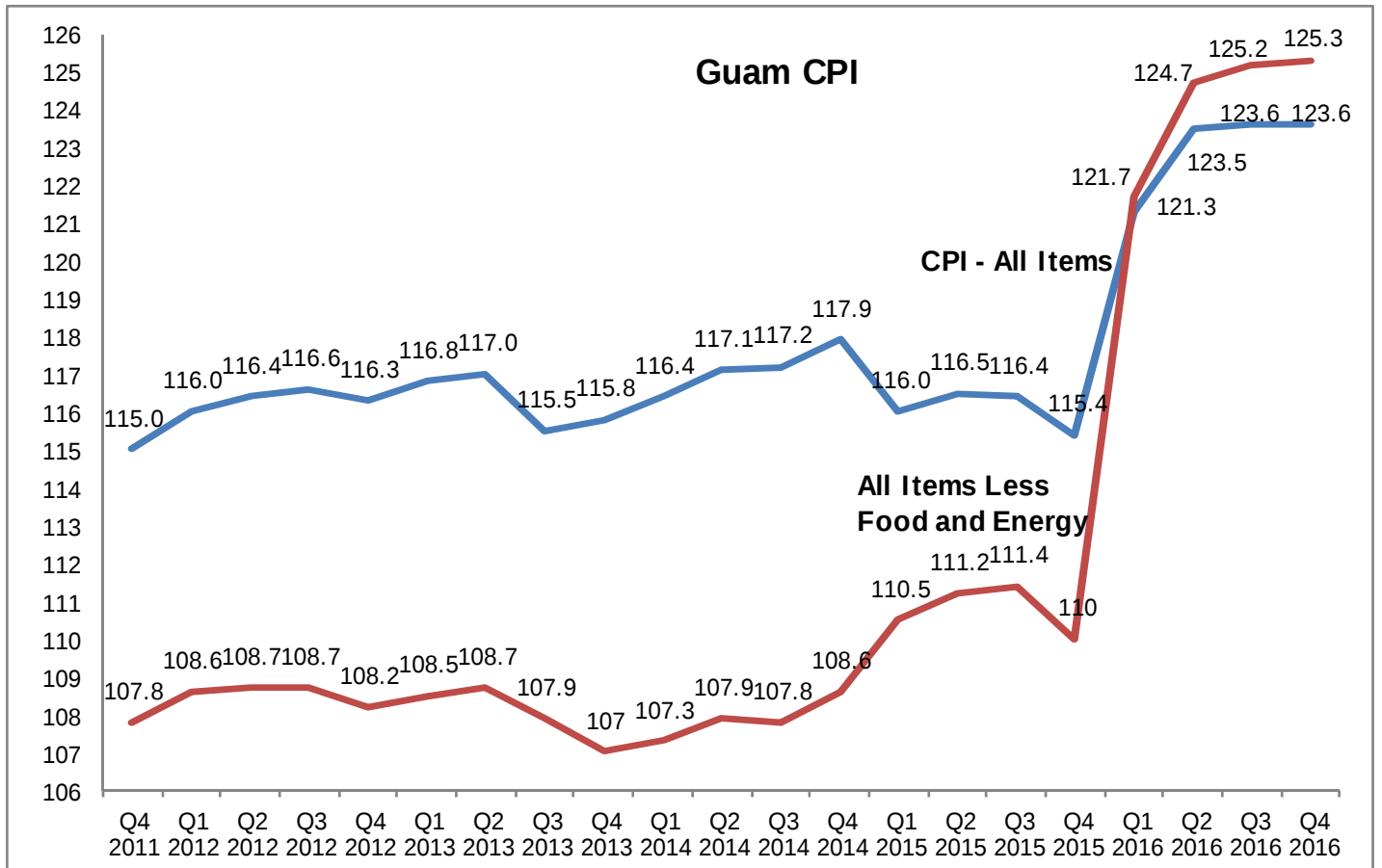
(4th Qtr. 2007 = 100.00)

Rebased Indexes<sup>2</sup>, Average Annual Percent Change

| Calendar Year | 1st Qtr. | 2nd Qtr. | 3rd Qtr. | 4th Qtr. | Annual Average | Average Annual Percent Change |
|---------------|----------|----------|----------|----------|----------------|-------------------------------|
| 2000          | 71.2     | 71.4     | 70.4     | 70.2     | 70.8           | 2.0%                          |
| 2001          | 70.6     | 70.4     | 69.2     | 69.1     | 69.8           | -1.4%                         |
| 2002          | 69.8     | 69.8     | 70.0     | 71.5     | 70.3           | 0.6%                          |
| 2003          | 70.3     | 72.3     | 72.7     | 73.5     | 72.2           | 2.7%                          |
| 2004          | 74.7     | 76.0     | 77.1     | 78.6     | 76.6           | 6.1%                          |
| 2005          | 79.3     | 80.9     | 81.5     | 88.1     | 82.5           | 7.7%                          |
| 2006          | 88.8     | 91.3     | 92.4     | 95.5     | 92.0           | 11.6%                         |
| 2007          | 97.2     | 98.1     | 97.6     | 100.0    | 98.2           | 6.8%                          |
| 2008          | 101.1    | 104.1    | 106.0    | 106.1    | 104.3          | 6.2%                          |
| 2009          | 105.6    | 105.4    | 106.9    | 106.5    | 106.1          | 1.7%                          |
| 2010          | 107.8    | 108.9    | 109.4    | 110.6    | 109.2          | 2.9%                          |
| 2011          | 109.8    | 112.9    | 113.3    | 115.0    | 112.8          | 3.3%                          |
| 2012          | 116.0    | 116.4    | 116.6    | 116.3    | 116.3          | 3.2%                          |
| 2013          | 116.8    | 117.0    | 115.5    | 115.8    | 116.3          | 0.0%                          |
| 2014          | 116.4    | 117.1    | 117.2    | 117.9    | 117.2          | 0.8%                          |
| 2015          | 116.0    | 116.5    | 116.4    | 115.4    | 116.1          | -0.9%                         |
| 2016          | 121.3    | 123.5    | 123.6    | 123.6    | 123.0          | 6.0%                          |

FOOTNOTE: "2" See page (i) Example II, for the discussion on rebasing indexes.

SOURCE: Cost of Living Section, Business and Economic Statistics Program, Bureau of Statistics and Plans, Government of Guam



Bureau of Statistics and Plans  
Government of Guam  
P. O. Box 2950  
Hagatna, Guam 96932

Albert M. Perez  
Chief Economist

Heather R. Perez  
Data Control Clerk II

Chasity L.G. Tainatongo  
Statistical Technician I

Tel: (671) 472-4201, 475-9683  
Fax: (671) 477-1812  
Website: <http://www.bsp3.guam.gov>  
email: [albert.perez@bsp.guam.gov](mailto:albert.perez@bsp.guam.gov)