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# THE CAYMAN ISLANDS' 2008 CONSUMER PRICE INDEX BASKET

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## 1. Introduction

This report presents the 2008 Consumer Price Index (CPI) basket of the Cayman Islands. The CPI basket consists of consumer goods and services that represent the purchases of a typical or an average household in the country during the reference or base period (June 2008). Changes in the retail prices of these goods and services between the base period and another period, or between any two periods, are the basis for estimating the CPI inflation rate.

### 1.1 Importance of the 2008 CPI basket

The CPI is one of the most common official statistics produced by national statistical offices worldwide. It is also one of the most popular statistics used by individuals, households, businesses, and governments for informing expectations about future consumer prices, general price levels in the economy and other related prices such as salaries and wages, rents and business fees.

In the Cayman Islands, the CPI is one of the most frequently requested statistics by various sectors from the Economics and Statistics Office; they are likewise one of the most frequently downloaded data from the office website *www.eso.ky*. In the area of policy-making, the CPI is one of four macroeconomic statistics mandated by the Public Management and Financial Law for formulating the economic context of the Government's annual Strategic Policy Statement (SPS) and the Government's Annual Budget Statement.

The 2008 CPI basket is intended to replace the current CPI basket which has been in use since September 1994. The latter was constructed from the expenditure data of the 1991 Household Income and Expenditure Survey as updated in 1994, whereas

the 2008 CPI basket is based on the expenditure data from the 2007 Survey of Living Condition (SLC)/Household Budget Survey (HBS) as updated in 2008.

A new series of the CPI will be estimated using the 2008 basket, with June 2008 as the base period (or reference period) wherein the total value of all the products in the basket are indexed to 100. Surveys of prices of all products in the 2008 basket have already been conducted in June, September and December 2008, and will also be carried out in March 2009 and June 2009. These surveys will enable the ESO to produce the first CPI Report using the new basket; such report is scheduled for release after June 2009. This report is expected to include the 2008 CPI quarterly series beginning June 2008, the quarterly inflation rates and the annual inflation rate for the period June 2009 (over June 2008). It will also include the linked series between the 1994 base-period series and the new 2008 base period series.

The 2008 CPI basket shall be the sole basis for the CPI surveys and reports of ESO after June 2009.

In view of the various changes in lifestyle of households in the Cayman Islands between 1991/94- 2007/08, the 2008 CPI basket will provide a more accurate basis for estimating the CPI of the Cayman Islands. Changes in lifestyle would be reflected in the inclusion of new products (goods and services), disappearance of some products, or changes in the weights of products in the new basket. Examples of new products that are included in the 2008 basket are health care insurance service charges, social protection for the elderly and disabled, social protection for children, personal computers and peripherals, residential building painting and carpentry. On the other hand, the adoption of the United Nations classification system for consumer goods and services has led to the exclusion from the new basket of a housing service called “structural additions to houses and enlargements”

--- this appears in the current (1994) basket but is excluded in the 2008 basket because it is considered a fixed asset expenditure for buildings and structures. Despite this exclusion, the 2008 basket increased the weight of housing expenses compared to all other categories.

A logical question often asked when a new CPI basket is introduced, is the difference in the CPI estimates using the new (2008) and current (1994) baskets. If the price movements of products absent in the current basket but present in the new basket (computers, etc) are found to be higher than the current CPI basket, then there is a possibility that the current CPI inflation under-estimates the 2008-basket CPI inflation. Conversely, if the price movements of the new basket products (computers, etc) are found to be lower than those of the current CPI basket, there is a possibility that the current CPI inflation over-estimates the 2008-basket CPI inflation. In order to estimate the differences in the CPI movement using the two baskets, CPI surveys using both baskets shall be conducted simultaneously during the June 2008 - June 2009 survey periods. The results of these comparative surveys shall also be included in the first CPI Report for the 2008 basket mentioned earlier.

The use of the new basket will significantly improve the relevance of the CPI estimated by the ESO as a measure of the general price movement of goods and services in the Cayman Islands. The construction of the new CPI basket is part of the strategic vision of the ESO to respond to the local data needs in a manner compliant with international statistics standards. The selection and classification of the goods and services were in accordance with the United Nations (UN) Classification of Individual Consumption According to Purpose (COICOP). The underlying concepts were also based on the CPI manual prepared and published jointly by the International Labour Office and the International Monetary Fund, the Organization for Economic Cooperation and Development, Statistical Office of European

Communities, United Nations Economic Commission for Europe and the World Bank.

## 1.2 Organization of the report

The rest of this report comprises three sections. **Section 2** provides an overview of the methodology and concepts used in constructing the basket. **Section 3** presents a set of tables starting with the overall 2008 CPI basket (all divisions) and a table each for the component twelve divisions. Each table shows the specific products or items making up the CPI basket classified according to the UN COICOP at five levels: five-digit level (item or product level), four-digit level (class level), three-digit level (group level) and two-digit level (division level). The tables also include the weights at each level; these are equivalent to their spending share for every \$1000 of total household spending as of June 2008. Finally, **Section 4** presents a comparative summary of the 1994 and 2008 CPI baskets at the division level.

The 2008 CPI basket is based on the results of the 2007 Survey of Living Conditions (SLC)/Household Budget Survey (HBS) conducted in all districts of the Cayman Islands in February 2007 - June 7, 2007. Appendix 1 provides a background on the SLC/HBS.

Appendix 2 presents information on the UN COICOP while Appendix 3 describes the method used in aggregating the expense data from the SLC/HBS.

## 2. Coverage, Methodology and Concepts

This section presents an overview of the coverage, selection methodology and key concepts underlying the construction of the 2008 CPI basket. Overall, the coverage was based largely on the results of the 2007 Survey of Living Conditions and Household Budget Survey, with supplementary information from the 2007 Annual Overseas Report, the 2007 Compendium of Statistics and data from industry sources collected by ESO staff. The methodology and concepts were based on the manual *Consumer Price Index (Theory and Practice)* jointly produced by international organizations led by the International Labour Organization, the International Monetary Fund and the United Nations.

### 2.1 Geographic coverage

Consumer spending of households residing in Grand Cayman and Sister Islands are included in the basket. Expenses of residents for acquisition of consumption goods and services outside of Cayman such as via the internet or direct purchases abroad are also included. The SLC/HBS 2007 reveals that most of these foreign expenditures are made in the United States and are concentrated in the following categories: clothing; furniture; medical expenses; property insurance; beauty products and alcoholic beverages<sup>1</sup>.

### 2.2 Household coverage

The consumption spending represented in the basket is based on the aggregate household spending of sampled households in the 2007 SLC/HBS (see Appendix 1). Spending for all households was estimated by multiplying a weighting factor to the

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<sup>1</sup> Since it is impracticable to collect prices directly in the US, a reasonable proxy for price movements in the US will be adopted in the price surveys by using published sub-indices of its CPIs, and designating products and services purchased in the USA as a separate "outlet."

survey results (See Appendix 3). The basket essentially captures the spending pattern of all income groups as represented in the randomly-selected household samples of the SLC/HBS.

### **2.3 Methodology for determining the type of goods and services in the basket**

Not all types of household spending are included in the CPI basket. In general, the basket includes goods and services for final consumption during the survey period that are legal and are acquired through monetary transactions, but excludes fixed assets and financial assets (which represent savings for future consumption). Goods which are acquired by households fall into two categories, namely durables and non-durables. Non-durables are generally “single use” goods such as food and drinks used to satisfy hunger or thirst. Consumer durables such as furniture, household equipment or vehicles can be used repeatedly over several years. Semi-durables such as clothing have a useful life which is shorter, usually one to two years. The list of items described as consumer durables or semi durables are included in the COICOP as opposed to other fixed assets or capital goods, for example, buildings or other structures, land, machinery and equipment of a commercial nature.

More specifically, the following were the key criteria in determining the types of products that were included in the CPI basket:

**1) The CPI basket includes the goods and services acquired by households.** The application of the “acquisition” concept is consistent with the CPI price collection guideline which states that prices should be collected at the time that the expenditure actually takes place. At the time of acquisition, the full price of the item is recorded and the consumer incurs a liability for taking ownership of the good or



service. This is quite distinct from the time that actual payments are made and the financial liability is extinguished.

In the case of a service, the time at which this is acquired is not readily determined since the provision of a service does not involve exchange of ownership. However, once the liability to pay is acquired by the consumer, acquisition of the service takes place.

**2) The CPI basket includes goods and services acquired by households through monetary transactions only.** Examples of monetary transactions are the purchase of furniture and furnishings during the course of a year, clothing purchased during the course of a three month period, or the value of water, electricity, and telephone used. (Such expenditures in the SLC/HBS were related to a precisely defined reference period to ensure that all data could be annualized when the expenditure weights were defined.)

**3) Acquisition of goods and services through non-monetary transactions are not included in the basket, such as in the following instances<sup>2</sup>:**

- Those produced by households themselves for their own consumption such as conch caught or food eaten by the household from a backyard garden.
- Those received as remuneration in kind for work done.
- Those received as gifts or transfers from the government, friends, church, etc.

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<sup>2</sup> Since the main reason for constructing the CPI is the measurement of consumer inflation, non-monetary acquisitions are excluded. In this sense, the CPI basket uses a “plutocratic” method of valuing consumption where households with more command of resources in the market will exert more influence on the price formation process.

- As a consequence of the above concept, government-funded education, health or other services are excluded from the CPI basket. **Only the out-of-pocket expenses of the households for such services are included in the CPI weighting system.** For example, the CPI weight for education is the out-of-pocket expenditures as reported on the SLC/HBS survey.

**4) The CPI basket excludes household expenditures for items not considered as consumer goods and services such as:**

- investment items;
- dwellings<sup>3</sup>, land; mortgage payments bonds, stocks;
- financial assets<sup>4</sup>, and life insurance net premiums which constitutes the purchase of a financial asset<sup>5</sup>;
- transfers - these are unilateral payments which do not result in the consumer acquiring any good or service in return, that is, there is no “quid pro quo”. Important examples of transfers include payments directly related to the ownership of assets such as property taxes or taxes on capital gain; national or any social security contributions including non-life insurance<sup>6</sup>; subscriptions, donations and gifts. However, club fees or subscriptions to organizations that provide some service in return are included within the scope of the CPI; and

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<sup>3</sup> While the acquisition cost of dwellings is excluded, an imputed expenditure on household services derived from the use of the owner-occupied dwelling is included.

<sup>4</sup> An implicit or explicit fee or service charge paid by households for the services rendered by financial auxiliaries such as brokers, banks, insurers (life and non-life), pension fund managers, financial advisors, accountants etc. are within the scope of the CPI. Payments of such fees are simply purchases of services.

<sup>5</sup> However, life/non-life insurance premium (including health insurance) is included in the CPI basket as a proxy for life/non-life insurance provider fee which is normally included in the premium.

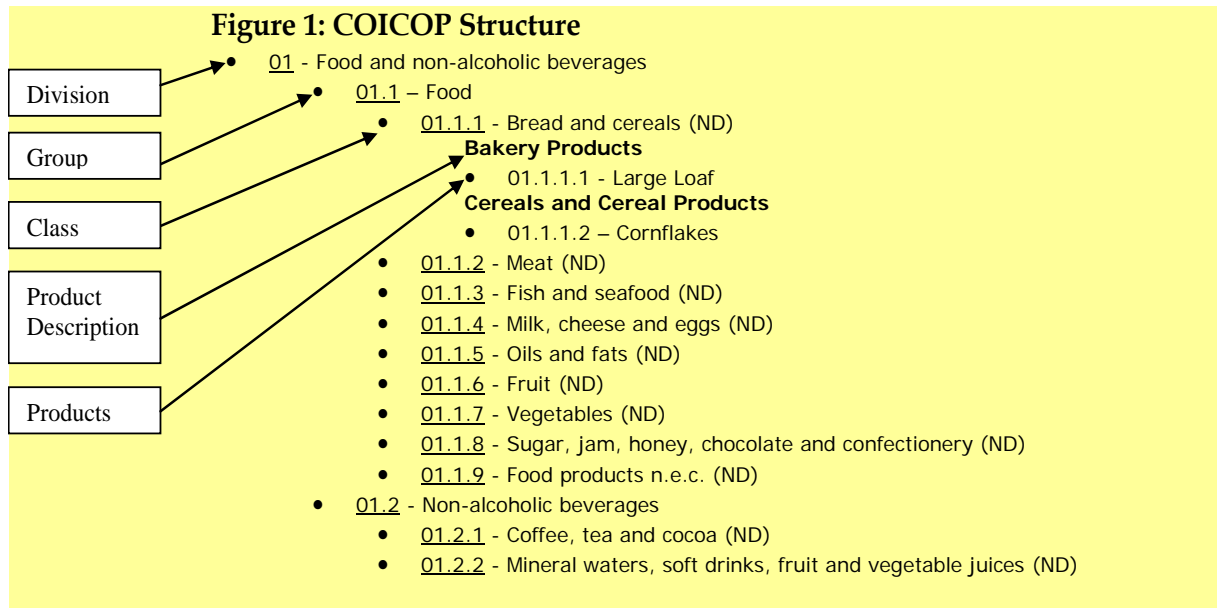
<sup>6</sup> See above footnote 5.

- illegal goods - these are excluded from the basket as a result of the practical problems associated with obtaining price data on illegal goods or services.

#### **2.4. Process and criteria for selecting specific products in the CPI basket**

The specific basket of goods and services included in the CPI should represent the pattern of expenditure of the typical household consumer in the Cayman Islands. This is implemented by ensuring that the products found in the basket are all derived from the results of the 2007 SLC/HBS. The process of selecting the products from the survey results and the criteria used, as well as how these were transformed to comprise the June 2008 CPI basket is described as follows:

1) The basic data for the selection process was the list of household spending from the 2007 SLC/HBS in accordance with Section 2.3 (above). The entries in the list were classified according to the UN COICOP up to the 5-digit level or product level. The UN COICOP structure is illustrated in Figure 1 below for easy reference. (Further information on the COICOP is found in Appendix 2, while information on the method of aggregating data in the SLC/HBS data is presented in Appendix 3). Supplementary data from the 2007 Compendium of Statistics, 2007 Foreign Trade Statistics report, current (1994- based) CPI basket prices data, and other industry data were used for validating the expenditures derived from the SLC / HBS 2007.



2) For each entry in the SLC/HBS basic data, the total amount of household expenditure was also provided. The recorded amounts were the primary consideration in selecting which entries for the following COICOP levels can be included for the basket: five-digit (product), four-digit (class) and three-digit (group). Only products, classes and groups with expenses of at least \$10 for every \$1000 (or 1%) of total spending were initially selected at each level. The exceptions to this criterion were products (five-digit level) which are considered “basic” consumer goods that are essential to daily living that have low weights primarily due to their low unit costs. Examples of these exceptions include salt, cooking gas and school clothing.

These are two specific products for which expenditure data were obtained outside the SLC /HBS 2007 were: (a) motor vehicle (0711) where the combined data from the Compendium of Statistics and Foreign Trade Report were used; and (b) other financial service (02621) where data from the 2007 Labour Force Survey, service charge/fees of a respondent bank, financial statement of a respondent bank, and banking data from the Cayman Island Monetary Authority were used

3) Another criterion for the final selection of the basket of goods and services was the stability of the product in the market as well as the feasibility of obtaining accurate and reliable prices<sup>7</sup>. Reliability of price collection is dependent on the stability of the product to remain in the market over time. In some cases, a product may be constantly in the market, but its varieties are highly variable; for example, used cars are always in the market but there is no single constant variety that may always be available to use as a benchmark for the CPI basket.

4) Where the expenditure for a product (5 digits) was considered not significant for inclusion in the basket, or it was not feasible to obtain accurate and reliable varieties and/or prices for these varieties, these were re-distributed proportionately among the other products (5 - digit COICOP) within the same sub-group using the following guidelines:

a) Weights of non-selected 5-digit (products) items were added to close substitutes in the same 4-digit class. However, if there is no close substitute, the weights of non-selected 5-digit (products) items were proportionately added to the weights of the selected products in the same 4-digit class.

b) Weights of non-selected 4-digit classes were added to close substitutes in the same 3-digit group. If there are no close substitutes, weights were proportionately added to other classes in the same 3-digit group.

c) Weights of non-selected 3-digit groups were added to close substitutes in the same 2-digit division. If there are no close substitutes, weights were proportionately added to other classes in the same 2-digit division.

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<sup>7</sup> The six-digit level (varieties of products) will be included in the CPI Report covering the results of the June 2008, September 2008, December 2008, March 2009 and June 2009 CPI Surveys using the new basket.

5) The above process produced the final list of products, classes and groups as of the survey period (February – first week of June) along with their corresponding expenditures and weights. This list was then transformed into the base period (June 2008) CPI basket by applying an adjustment factor. The adjustment factor approximates the increase in prices of the products/classes/groups between the survey period and the base period. For this purpose, the average price indices or average prices in March and June 2007 were used as the proximate prices for the survey period. The adjusted June 2008 expenditures are derived as follows:

$$E^{P}_{2007} \times (1 + A^P) = E^{P}_{2008}$$

where

$E^{P}_{2007}$  = expenditure for the product level in the survey period

$A^P$  = adjustment factor equivalent to the percentage increase of the June 2008 average price of the product over the March and June 2007 average prices.

$E^{P}_{2008}$  = expenditure for the product level in June 2008.

In cases where product level prices were available for March/June 2007, the adjustment factors were applied to products. However, in cases where product prices were not available for March/June 2007, class level average prices were instead used. For products and classes that have no price data in March/June 2007, the adjustment factor was based on the closest price indices in the US on the assumption that local prices of these products closely follow or are influenced by the price movements in the US.

The above process led to the construction of the base period (June 2008) CPI basket which is presented in Section 3.

## 2.5 Interpretation of the weights

The weights are dependent solely on the amount of expenditure for the particular item/product, class, group or division subject to the abovementioned process. The expenditures are market-based and the weights broadly measure the relative value of various goods and services wholly or partly used up in the base period.

The weight of a product is simply the amount of household expenditure for this product per CI\$1000 of expenditures for all products across all households. Therefore, the three implied determinants of a product's weight are: a) the average unit price; b) the average quantities purchased per household; and c) the number of households that made the actual purchase. The higher these factors for a particular product relative to other products in the basket, the higher the product's weight.

### 3. The 2008 CPI Basket

This section presents the 2008 base period CPI basket, also referred to in this report as the 2008 or new CPI basket. The basket consists of 165 products, classified into 87 classes, 42 groups and 12 divisions of the UN Classification of Individual Consumption According to Purpose (COICOP)<sup>8</sup>. For easy reading, the basket is shown in separate tables as follows:

- Table 3.1 – Overview of the CPI basket by COICOP division;
- Table 3.2 – Division 01: food and non-alcohol;
- Table 3.3 – Division 02: alcoholic beverages and tobacco;
- Table 3.4 – Division 03: clothing and footwear;
- Table 3.5 – Division 04 : housing, water, electricity, gas and other fuels;
- Table 3.6 – Division 05: furnishings, household equipment, and routine household maintenance;
- Table 3.7 – Division 06: health;
- Table 3.8 – Division 07: transport;
- Table 3.9 – Division 08: communication;
- Table 3.10 – Division 09: recreation and culture;
- Table 3.11 – Division 10: education;
- Table 3.12 – Division 11: restaurants and hotels; and
- Table 3.13 – Division 12: miscellaneous goods and services.

Tables 3.2 to 3.13 present for each division the following information: the groups (three-digits), classes (four-digit) and products (five-digit), and their corresponding weights. The weights are simply equal to the corresponding total annual expenditures divided by the total annual expenditure for the entire CPI basket as shown in Table 3.1.

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<sup>8</sup> The COICOP has seven digits. This report presents the CPI basket up to the 5<sup>th</sup> digit (product level). The basket comprising of the 6<sup>th</sup> and 7<sup>th</sup> digit varieties of products will be appended to the first CPI report using the 2008 basket after June 2009.



**Table 3.1 - Overview of the 2008 CPI Basket by COICOP Division**

Division of products	Number of groups (3-digit)	Number of classes (4-digit)	Number of products (5-digit)	Total household expenditure per division (\$000)	Total weight (per \$1000 of total expenditure)
01 - Food and non-alcoholic beverages	2	11	40	100,784	75.03
02 - Alcoholic beverages and tobacco	2	4	4	9,065	6.75
03- Clothing and footwear	2	5	13	46,598	34.69
04 - Housing, water, electricity, gas and other fuels	5	7	12	536,136	399.11
05 - Furnishings, household equipment, and routine household maintenance	6	11	26	74,726	55.63
06 - Health	3	6	7	32,560	24.24
07 - Transport	3	8	10	126,677	94.30
08 -Communication	3	3	6	93,630	69.70
09 - Recreation and culture	5	15	21	54,496	40.57
10 - Education	3	3	4	37,484	27.90
11 - Restaurants and hotels	2	3	5	53,983	40.19
12 - Miscellaneous goods and services	6	11	17	177,182	131.90
<b>ALL DIVISIONS</b>	<b>42</b>	<b>87</b>	<b>165</b>	<b>1,343,321</b>	<b>1000.00</b>

The above is a summary of the 2008 CPI basket which amounts to \$1,343,321,138. The weights indicate the importance of the divisions in the basket; as expected, the highest was recorded for division 04 (housing, etc). In the table above and other tables in this report, the sum is not exactly equal to the total due to rounding-off.

Table 3.2 - CPI Basket for Division 01: Food and Non-alcohol

Group (3- Digit)	Class (4- Digit)	Product (5-digit)	Weight
011 - Food			<b>61.02</b>
	0111- Bread and cereals		<b>9.48</b>
		01111- Bakery products	5.38
		01112 - Cereal and cereal products	4.10
	0112 - Meat and meat products		<b>10.53</b>
		01121 - Beef - fresh or frozen	2.67
		01122 - Pork - fresh or frozen	1.59
		1123 - Mutton, goat & lamb - fresh or frozen	0.48
		01125 - Preserved meat: smoked, cured, canned, cooked	2.55
		01128 - Chicken - fresh or frozen (Imported)	2.83
		01129 - Other poultry - fresh or frozen	0.42
	0113 - Fish and seafood		<b>4.19</b>
		01131 -Local fish - fresh or frozen	1.43
		01132 - Imported fish - fresh or frozen	2.01
		01133 - Canned fish	0.75
	0114 - Milk, cheese and eggs		<b>9.32</b>
		01141 - Milk	4.85
		01142 - Cream	0.23
		01143 - Ice cream & stick confections	1.06
		01144 - Other dairy products	0.83
01145 -Eggs		0.79	
0115 - Oils and fats		<b>2.00</b>	
	01151 All oils and fats	2.00	

(See next page for continuation)

Table 3.2 - Division 01 (Continuation): Food and Non-alcoholic

Group (3- Digit)	Class (4- Digit)	Product (5-digit)	Weight	
011 - Food Cont'd	0116 - Fruit		6.75	
		1161 - Fresh fruit	6.03	
		01163 - Canned fruit	0.35	
		01164 - Dried fruit	0.37	
	0117 - Vegetables			8.67
		01171 - Fresh vegetables	5.07	
		01172 - Frozen vegetables	0.76	
		01173 - Canned vegetables	0.94	
		01174 - Dried vegetables	0.28	
		01175 - Root vegetables	1.62	
	0118 - Sugar, jam, honey, chocolate and confectionery			4.43
		01181 - Sugar	0.40	
		01182 - Sugar confectionary	0.59	
		01183 - Sweets and chocolates	0.70	
		01184 - Packaged snack foods	2.74	
	0119 - Food products n.e.c.			5.64
		01191 - Soups	0.68	
		01192 - Flavourings, colourings and additives	3.13	
		01193 - Prepared and semi-prepared food	1.84	
012 Non - Alcoholic Beverages			14.01	
	0121 - Coffee, tea and cocoa		1.59	
		01211 - Tea	0.54	
		01212 - Coffee	0.62	
		01213 - Cocoa and other food beverages	0.43	
	0122 - Mineral waters, soft drinks, fruit and vegetable juices			12.42
		01221 - Mineral or spring water (drinking water sold in containers)	3.35	
		01222 - Carbonated soft drinks	2.59	
		01223 - Fruit juices (canned, carton, bottled)	5.83	
		01226 - Drink mixes	0.65	
<b>Division Total</b>			<b>75.03</b>	

**Table 3.3 - CPI Basket for Division 02: Alcoholic Beverages and Tobacco**

Group (3- Digit)	Class (4- Digit)	Product (5-digit)	Weight
021 - Alcoholic beverages			<b>5.84</b>
	0211 - Spirits		1.19
		02110 - Spirits and alcoholic cordials	1.19
	0212 - Wine		1.96
		02120 -Wine	1.96
	0213 - Beer		2.68
		02130 - Beer	2.68
022 - Tobacco			<b>0.91</b>
	0221 - Tabacoo		0.91
		02210 - Tobacco	0.91
<b>Division Total</b>			<b>6.75</b>

Table 3.4 - CPI Basket for Division 03: Clothing and Footwear

Group (3 - Digit)	Class (4- Digit)	Product (5-digit)	Weight
031 - Clothing			29.95
	0311 - Clothing materials		0.85
		03111 - Material for men and boys' garments	0.30
		03112 - Material for women and girls' garments	0.56
	0312 - Garments		23.48
		03121 - Men's garment	10.41
		03122 - Boys' (under 16) garments	1.76
		03123 - Women's garments	9.83
		03124 - Girls' (under 16) garments	1.47
	0313 - Other articles of clothing and clothing accessories		2.53
		3131 - Other articles of men's clothing	0.72
		03133 - Other women's clothing and clothing accessories	1.11
		03135 - Infant's (under 1 year) clothing and clothing accessories	0.71
	0314 - Cleaning, repair and hire of clothing		3.08
03141 - Dry-cleaning, laundering and dying of garments		3.08	
032 - Footwear			7.37
	0321 - Shoes and other footwear		7.37
		03211 - Men's and boys' (16 years and over)	4.74
		03212 - Women's and girls' (16 years and over)	2.01
		03213 - Infants' and children's (up to 16 years)	0.61
<b>Division Total</b>			<b>37.31</b>

**Table 3.5 – CPI Basket for Division 04:  
Housing, Water, Electricity, Gas and Other Fuels**

Group (3 - Digit)	Class (4- Digit)	Product (5-digit)	Weight
041 - Actual rentals for housing			<b>79.38</b>
	0411 Actual rental paid by tenants		79.38
		04111 - Rented furnished / 1/2 bedroom unfurnished	79.38
042 - Imputed rentals for housing			<b>222.75</b>
	0421- Imputed rentals for owner occupiers		222.75
		4211 - Imputed rentals for owners occupying their main residence ( 2, 3 and 4 bedroom house)	222.75
043 - Maintenance and repair of dwelling			<b>29.01</b>
	0431 - Materials for the maintenance and repair of dwelling		<b>18.91</b>
		04311 - Painting	9.23
		04312 - Masonry	1.83
		04313 - Carpentry	3.30
		04314 - Plumbing	1.28
		04315 - Electrical	2.19
		04317 - Pest and termites control	1.08
	432 - Services for maintenance and repair of dwelling		<b>10.10</b>
04321 - Services for maintenance and repair of dwelling		10.10	
044 - Water supply and miscellaneous services relating to dwelling			<b>20.63</b>
	0441 - Water supply		20.63
		04411 - Water Supply	20.63
045 - Electricity, gas and other fuels			<b>47.34</b>
	0451 Electricity		42.85
		04511 - Electricity	42.85
	0452 Gas		4.49
		4521 - Gas	4.49
<b>Division Total</b>			<b>399.11</b>

**Table 3.6 - CPI Basket for Division 05: Furnishings, Household Equipment, and Routine Household Maintenance**

Group (3- Digit)	Class (4- Digit)	Product (5-digit)	Weight
051 - Furniture and furnishings, carpets and other floor coverings			<b>4.84</b>
	0511 - Furniture and furnishings		<b>4.70</b>
		05111 - Living or recreation room	1.47
		05112 - Dining room furniture	0.44
		05113 - Kitchen furniture	0.76
		05114 - Bedroom furniture	1.34
		05115 - Patio and outdoor furniture	0.31
		05116 - Decorative furnishings	0.39
	0512 - Carpets and other floor coverings		<b>0.14</b>
		05121 - Carpets	0.14
052 - Household textiles			<b>0.89</b>
	0520 - Household textiles		0.89
		05202 - Ready made articles	0.32
		05203 - Beddings	0.29
		05204 - Towels and table linen	0.27

*(See next page for continuation)*

**Table 3.6 - CPI Basket for Division 05 (Continuation): Furnishings, Household Equipment, and Routine Household Maintenance**

Group (3- Digit)	Class (4- Digit)	Product (5-digit)	Weight
053 - Household appliances			2.28
	0531 - Major household appliances whether electric or not		0.64
		05311 - Major kitchen appliances	0.34
		05314 - Major air and water appliances	0.30
	0532 - Small electric household appliances		0.24
		05320 - Small electric household appliances	0.24
	0533 - Repair of household appliances		1.40
		05330 - Repair of household appliances (includes total value of repair)	1.40
054 - Glassware, tableware and household utensils			2.09
0540 - Glassware, tableware and household utensils			2.09
		05402 - Cutlery, flatware, silverware	0.38
		05403 - Non-electric kitchen equipment	0.73
		05405 - Repairs to glassware, tableware and household utensils	0.99
055 - Tools and equipment for house and garden			1.10
	0551 - Major tools and equipment		0.32
		05512 - Gas powered tools	0.32
	0552 - Small tools and miscellaneous accessories		0.78
		05521 - Hand tools	0.07
		05524 - Fittings	0.14
05525 -Small electrical accessories		0.57	



**Table 3.6 - CPI Basket for Division 05 (Continuation): Furnishings, Household Equipment, and Routine Household Maintenance**

Group (3- Digit)	Class (4- Digit)	Product (5-digit)	Weight
056 - Goods and services for routine household maintenance			<b>44.42</b>
	0561 - Non-durable household goods		8.09
		05611 - Cleaning and maintenance products	5.19
		05613 - Paper/Plastic products	0.78
		05614 - Miscellaneous household supplies	2.12
	0562 - Domestic services and household services		<b>36.33</b>
		05621 - Employed staff (paid staff privately employed)	33.37
05624 - Dry cleaning and laundering of household linen		2.96	
<b>Division Total</b>			<b>55.63</b>

Table 3.7 - CPI Basket for Division 06: Health

Group (3-Digit)	Class (4-Digit)	Product (5-digit)	Weight
061 - Medical products, appliances and equipment			<b>4.95</b>
	0611 - Pharmaceutical products		3.85
		06111 - Medicinal preparations, medicinal drug, patent medicines	3.85
	0613 - Therapeutic appliances and equipment		1.10
		6131 - Therapeutic appliances and equipment	1.10
<b>062 - Outpatient services</b>			<b>17.85</b>
	0621 - Medical services		9.73
		06211 - Medical services	9.73
	0622 - Dental services		4.76
		06221 - Dental services	4.76
	0623 - Paramedical services		3.36
06231 - Paramedical services		3.36	
<b>063 - Hospital services</b>			<b>1.44</b>
	0630 - Hospital services		1.44
		6301 - Basic hospital services	1.08
		06302 - Specialist medical services	0.35
<b>Division Total</b>			<b>24.24</b>

Table 3.8 – CPI Basket for Division 07: Transport

Group (3- Digit)	Class (4- Digit)	Product (5-digit)	Weight
071 - Purchase of vehicles			5.98
	0711 - Motor cars		5.98
		07111 - Motor vehicles	5.98
072 - Operation of personal transport equipment			61.45
	0721 - Spare parts and accessories for personal transport equipment		10.23
		07211 - Spare parts and accessories for personal transport equipment	10.23
	0722 - Fuels and lubricants for personal transport equipment		31.74
		07221 -Fuels	31.74
	0723 - Maintenance and repair of personal transport equipment		10.54
		07231 - Maintenance and repair of personal transport automobiles (cost of labour)	10.54
	0724 - Other services in respect of personal transport equipment		8.95
		07243 - Personal driver's expenses	0.72
		07244 - Road worthiness test and vehicle licensing	4.47
		07246 - Hire of rental vehicle	3.76
073 - Transport services			26.87
	0732 - Passenger transport by road		4.68
		07321 - Bus	4.68
	0733 - Passenger transport by air		15.45
		07331 - Transport by air	15.45
0736 - Other purchased transport services		6.75	
	07361 - Other purchased transport services	6.75	
<b>Division Total</b>			<b>94.30</b>

**Table 3.9 - CPI Basket for Division 08: Communication**

Group (3- Digit)	Class (4- Digit)	Product (5-digit)	Weight
081 - Postal services			<b>0.47</b>
	0810 - Postal services		<b>0.47</b>
		08101 - Letter, post cards and parcels	0.24
		08102 - Private mail and parcel delivery	0.23
082 - Telephone and telefax equipment			<b>0.32</b>
	0820 - Telephone and telefax equipment		<b>0.32</b>
		08201 - Purchase of telephone and telefax equipment	0.32
083 - Telephone and telefax services			<b>68.92</b>
	0830 - Telephone and telefax services		<b>68.92</b>
		08301 - Installation and subscription cost	5.43
		08302 - Telephone call cost	57.64
		08304 - Internet connection services and information transmission services	5.84
<b>Division Total</b>			<b>69.70</b>

Table 3.10 – CPI Basket for Division 09: Recreation and Culture

Group (3- Digit)	Class (4- Digit)	Product (5-digit)	Weight
091 - Audio-visual, photographic and information processing equipment			4.25
	0911 - Equipment for the reception, recording and reproduction of sound and pictures		1.62
		09111 - Televisions, visual media players	0.39
	0912 - Photographic and cinematographic equipment and optical instruments	09113 - Audio media players	1.23
			0.69
	0913 - Information processing equipment	09121 - Photographic and cinematographic equipment	0.69
			1.31
	0914 - Recording media	09131 - Personal computers and peripherals	1.31
			0.62
	092 - Other major durables for recreation and culture		0.62
		3.37	
0921 - Major durables for outdoor recreation			3.18
		09211 - Major durables for outdoor recreation	3.18
0922 - Musical instruments and major durables for indoor recreation		0.19	
	09221 - Musical instruments	0.19	

(See next page for continuation)

Table 3.10 - CPI Basket for Division 09 (Continuation): Recreation and Culture

Group (3- Digit)	Class (4- Digit)	Product (5-digit)	Weight
093 - Other recreational items and equipment, gardens and pets			<b>10.47</b>
	0932 - Equipment for sport, camping and open-air recreation		2.87
		09321 - Sports equipment, Camping and beach equipment	2.87
	0933 - Gardens, plants and flowers		1.63
		09331 - Plants and flowers	1.63
	0934 - Pets and related products		2.33
		09341 - Pet related products	2.33
	0935 - Veterinary and other services for pets		3.64
		09351 - Veterinary and other services for pets such as grooming, boarding, tattooing, and training	3.64

(See next page for continuation)

Table 3.10 - CPI Basket for Division 09 (Division): Recreation and Culture

Group (3- Digit)	Class (4- Digit)	Product (5-digit)	Weight	
094 - Recreational and cultural services			<b>17.68</b>	
	0941 - Recreational and sporting services			3.71
		09411 - Services provided for recreation and sports		1.85
		09412 - Hire of equipment and accessories for sports and recreation		1.49
		09413 - Individual or group lessons		0.37
	0942 - Cultural services			<b>13.97</b>
		09421 - Admissions, annual subscription and services		4.35
		09422 - Annual subscriptions		1.89
		09425 - Hire of equipment and accessories for culture		0.35
		09426 - Cable and satellite television services		7.38
	095 - Newspapers, books and stationery			<b>4.80</b>
0951 - Books			2.60	
		09511 - All types of books		2.60
0952 - Newspapers and periodicals			1.88	
		09521 - Newspapers and periodicals		1.88
0953 - Miscellaneous printed matter			0.31	
		09531 - Miscellaneous printed matter		0.31
<b>Division Total</b>			<b>40.57</b>	

Table 3.11 - CPI Basket for Division 10: Education

Group (3- Digit)	Class (4- Digit)	Product (5-digit)	Weight
101 - Pre-primary and primary education			<b>17.10</b>
	1010 - Pre-primary and primary education		17.10
		10101 - Pre-primary and primary education	17.10
102 - Secondary education			<b>1.35</b>
	1020 - Secondary education		1.35
		10201 - Secondary education	1.35
104 - Tertiary education			<b>9.45</b>
	1040 - Tertiary education		9.45
		10401 - Local tertiary (college/university) education	9.23
		10402 - Foreign tertiary education	0.22
<b>Division Total</b>			<b>27.90</b>



Table 3.12 - CPI Basket for Division 11: Restaurants and Hotels

Group (3- Digit)	Class (4- Digit)	Product (5-digit)	Weight
111 - Catering services			<b>33.83</b>
	1111 - Restaurants, cafés and the like		<b>22.70</b>
		11111 - Breakfast by local restaurants	1.17
		11112 - Lunch by local restaurants	13.25
		11113 - Dinner by local restaurants	8.29
	1112 - Canteens		<b>11.13</b>
		11125 - Meals and snacks bought out	<b>11.13</b>
112 - Accommodation services			<b>6.36</b>
	1120 - Accommodation services		<b>6.36</b>
		11201 - Accommodation services	6.36
<b>Division Total</b>			<b>40.19</b>

Table 3.13 - CPI Basket for Division 12: Miscellaneous Goods and Services

Group (3- Digit)	Class (4- Digit)	Product (5-digit)	Weight
121 - Personal care			<b>26.14</b>
	1211 - Hairdressing salons and personal grooming establishments		<b>11.68</b>
		12111 - Hairdressing and beauty saloons	8.77
		12112 - Barbers and hair stylist (men)	2.91
	1213 - Other appliances, articles and products for personal care		<b>14.46</b>
		12131 - Non-electric articles	0.11
		12132 - Articles for personal hygiene	10.65
		12133 - Beauty products	3.70
123 - Personal effects n.e.c.			<b>7.67</b>
	1231 - Jewellery, clocks and watches		<b>3.92</b>
		12311 - Jewellery	3.25
		12312 - Clocks and watches	0.67
	1232 - Other personal effects		<b>3.75</b>
12321 - Travels goods and carriers of personal effects		3.75	
124 - Social protection			<b>8.42</b>
	1240 - Social protection		<b>8.42</b>
		12401 - Social protection for elderly and disabled	4.03
		12402 - Social protection for children	4.39

(See next page for continuation)

**Table 3.13 - CPI Basket for Division 12 (Continuation):  
Miscellaneous Goods and Services**

Group (3- Digit)	Class (4- Digit)	Product (5-digit)	Weight
125 - Insurance			<b>74.76</b>
	1251 - Life insurance		0.67
		12510 -Life insurance	0.67
	1252 - Insurance connected with the dwelling		24.70
		12521 - Home insurance (structure) owner occupied	17.31
		12526 - Home insurance (Strata)	7.39
	1253 - Insurance connected with health		19.85
		12530 - Health insurance	19.85
1254 - Insurance connected with transport		29.54	
	12541 - Vehicle insurance	29.54	
126 - Financial services n.e.c.			<b>2.69</b>
	1262 - Other financial services n.e.c.		2.69
		12621 -Other financial services	2.69
127 - Other services n.e.c.			<b>12.21</b>
	1270 - Other services n.e.c.		12.21
		12701 - Other services nec	12.21
<b>Division Total</b>			<b>131.90</b>

#### 4. Comparison of the 1994 and 2008 CPI Baskets

The 2008 CPI basket shall replace the 1994 CPI basket effective June 2009. Since the 1994 basket was not classified according to the UN COICOP, a correspondence between the two is not straightforward. Below are shown the 8 divisions in the 1994 basket and their nearest corresponding division/s in the 2008 basket.

**Table 4.1 Comparative Table of the 1994 and 2008 CPI Baskets**

Categories in 1994 basket	1991 Expenditures in \$000*	Weight in 1994 basket	Nearest corresponding categories in 2008 basket	2008 Expenditures in \$000	Weight in new basket
1. Food (including food from restaurants)	46,750	119.6	1. Food	100,784	75.0
			2. Restaurants and hotels**	53,983	40.2
					<b>115.2</b>
2. Alcohol & tobacco	6,140	15.7	3. Alcohol and tobacco	9,065	6.75
3. Clothing and Footwear	18,020	46.1	4. Clothing and Footwear	46,598	34.69
4. Housing (including utilities)	121,489	310.8	5. Housing (including utilities)	536,136	399.11
5. Household equipment	22,945	58.7	6. Furnishings, household equipment and routine household maintenance	74,726	55.63
6. Transport & communication	65,865	128.3	7. Transport	126,677	94.30
			8. Communication	93,630	69.70
					<b>164.0</b>
7. Education & medical	25,251	24.9	9. Education	37,484	27.90
			10. Health	32,560	24.24
					<b>52.1</b>
8. Personal goods & services	84,432	123.2	11. Recreation and culture	54,496	40.57
			12. Miscellaneous goods and services	177,182	131.90
					<b>172.5</b>
<b>All categories</b>	<b>390,890</b>	<b>1000</b>	<b>All categories</b>	<b>1,343,321</b>	<b>1000</b>

\* Derived from the weights      \*\* Hotel expenses would be nearest to personal goods and services in the 1994 basket

Food in the 1994 basket includes those purchased in restaurants and hotels which are separately classified in the 2008 basket.

Alcohol and tobacco in the 1994 basket includes purchases of these items from restaurants and hotels which are also separately classified for the 2008 basket.

Housing in the 1994 basket includes housing insurance service charges which are classified in the 2008 basket under miscellaneous goods and services. The 2008 housing basket also includes services for maintenance and repair of dwelling which was not in the 1994 basket. On the other hand, housing in the 1994 basket includes structural additions and alterations which are now excluded from the UN COICOP for CPI purposes.

Holiday-related services are classified in the 1994 basket as personal goods and services. In the 2008 basket, transportation for holidays is classified under “transportation” while hotel services are classified under “hotels and restaurants.”

Personal goods in the 1994 basket include domestic services and household services which are classified in the 2008 basket under furnishings, household equipment and routine household maintenance.

## Appendix 1. The 2007 Survey of Living Conditions/Household Budget Survey<sup>9</sup>

**Introduction.** The Survey of Living Conditions/Household Budget Survey (SLC/HBS) was undertaken as part of a wider study to assess the general standard of living in the Cayman Islands. The survey was conducted during the period February 2007 up to the first week of June 2007. A total of 1,144 randomly selected households covering all districts in the three islands were surveyed. Data on such items as demographic characteristics, education, health, housing, income levels and household consumption and expenditure were gathered. It is hoped that the data collected will aid the government in formulating its programmes and policies aimed at reducing poverty, enhancing social development and improving the overall quality of life for the people of the Cayman Islands. The survey also provided data on consumption expenditure necessary for updating the Consumer Price Index basket. The spending patterns of households generated from the data collected provided the starting point for the selection of items (goods and services) in the new CPI basket.

**Survey design.** The sample frame for the selection of the sample of households interviewed for the SLC/HBS was based on the ESO Household Register which is a listing of block and parcel addresses for all household dwellings. At the time of drawing the sample, the most recently updated register was completed in November 2006.

The Household Register categorizes household addresses by enumeration area, and by district. This allowed the development of the following schedule at the district level which formed the basis for the selection of the samples. For a review of the SLC/HBS questionnaire, please visit [www.eso.ky](http://www.eso.ky).

**Table A1: Sample Enumeration District, Addresses**

Enumeration Area	District	No of Addresses	Sampling Interval	Random Start	Random	
					1	2
BT1011	BODDEN TOWN	274	12	8	8	20
BT1012	BODDEN TOWN	201	12	9	9	21
BT1013	BODDEN TOWN	209	12	3	3	15
BT1020	BODDEN TOWN	219	12	8	8	20
BT1030	BODDEN TOWN	143	12	6	6	18
BT1041	BODDEN TOWN	152	12	11	11	23
BT1042	BODDEN TOWN	157	12	4	4	16

<sup>9</sup> This Appendix is based largely on the report of Edwin St. Catherine "Technical Details of the Sample Design for the Cayman Islands' Survey of Living Conditions."

In Table A1 above, a partial summary of the list of addresses for the EAs of Bodden Town is shown. It contains the Enumeration Area, the District to which it belongs, and the number of addresses obtained from the Household Register. A sample interval, in this instance of 12, was assigned in order to obtain an 8.3 percent sample of households in Bodden Town. A systematic sample with random start was used.

The random number ( $r$ ) is chosen between 1 and the sample interval value, 12 in BT, inclusive, then to this number is added the sample interval for the full list of addresses within the EA. Thus, the list of selected addresses in BT would be  $r$ ,  $r + 12$ ,  $r + 24$ ,  $r + 36$ ,  $r + 48$ ,.....

Due to the small size of some districts and the likelihood that many addresses listed would not contain households due to the large number of vacation homes in these districts, the decision was made to oversample by reducing the sample interval assigned to the EAs in these districts from 12 to 10 thus increasing the size of the sample in the smaller districts to 10 percent. This was necessary to increase the reliability of the estimates of population parameters derived from the sample. The sample interval of 10 was therefore applied to Cayman Brac/Little Cayman, East End and North Side.

**Weighting and non-response rates.** The following tables (Table A2 and Table A3) summarize the outcome of the Cayman Islands SLC/HBS 2007. Table A2 deals with the rates of response on the Housing and Person Questionnaires while Table A3 deals with the rates of response on the Diaries. In Table A2, "Expected Household Count from Sample" is the minimum total number of addresses visited for the conduct of the survey. "Obtained Household Count from Sample" is the number of questionnaires completed by the enumerators conducting the enumeration exercise. "Total Households 2007" measures the total number of households derived from the weighing the sample to the level of the population. "Main Questionnaire District Weight" is the inverse of the sampling rate (i.e.  $1/12$ , 8.3% is the expected size of the sample for some districts and 10% for Cayman Brac/Little Cayman, East End and North Side); this rate also takes into account refusals, no contacts and growth in the population from the time of the census.

**Table A2: Response Rates on the Questionnaires**

District	Expected Household Count from Sample	Obtained Household Count from Sample	Total Households 2007	Main Questionnaire District Weight
George Town	1002	602	10716	17.80
West Bay	428	182	3693	20.29
Bodden Town	245	151	2472	16.37
East End	83	57	447	6.48
North Side	82	69	517	9.07
Cayman Brac	156	83	1031	12.42
<b>TOTAL</b>	<b>1996</b>	<b>1144</b>	<b>18875</b>	

Table A3 specifically relates to the diaries. Due to the difficulty in completing the diaries and the heavy dependence on the cooperation of the households for its completion, the response rate has to be dealt with separately from the main questionnaire since typically the response rate on the diaries is usually a fraction of the response rate on the main questionnaire. There are two aspects to this: firstly, the household completing the main questionnaire may or may not respond to the diary in which case it is a total non-response. If the household responds it may respond for either one of both weeks for which two diaries have to be kept for the household. The response rate reported in Table A3 is the total response composed of the two aforementioned aspects. In Table A3, the expected and obtained numbers of diaries are reported, followed by the district level response rate on both diaries as a percentage of the response rate on the main questionnaires. The diaries weight at the district level follows; this is an adjustment of the district weights reported at Table A2 specifically for the additional amount of non-response on the diaries.

**Table A3: Response Rate on the Diaries**

District	Expected Number of Diaries from Households	Number of Diaries Obtained	Diaries District Response Rate	Diaries Weight
George Town	1204	1,048	87%	20.76
West Bay	364	276	76%	28.41
Bodden Town	302	248	82%	21.73
East End	114	80	70%	11.75
North Side	138	99	72%	12.16
Cayman Brac	166	127	77%	14.06
	<b>2288</b>	<b>1878</b>	<b>82%</b>	



**Data collection /questionnaires.** The data for the SLC/HBS were collected by direct face to face interviews. Enumerators were selected and employed by the ESO after undergoing a period of intensive training. The selected enumerators were provided with interviewer manuals which contained information on the composition and layout of each form, definitions of the terms used on the questionnaires, and written instructions to aid them to successfully conduct the interviews and to complete the questionnaires correctly. ESO hired five field supervisors in addition to the regular ESO Survey Supervisor and the overall ESO project supervisor to ensure that the process went as smoothly as possible.

The data was captured via three specially designed questionnaires as follows:

1. Household Questionnaire
2. Individual Questionnaire
3. Household Expenditure Diary and Memory Jogger

The questionnaires are available at the ESO website, [www.eso.ky](http://www.eso.ky).

For the most part, the interviews were done with household “heads” and individual household members aged 16 or older. Parents or guardians provided the information for persons less than 16 years old. The survey pertained only to residents (individuals who have been, or is intending to be, in the Cayman Islands for six months or more).

**The household questionnaire.** The household questionnaire this was 22 pages long and consisted of 10 sections. The cover page was used for identification and control for administration and processing. This questionnaire was administered to the head of the selected household or a responsible adult and collected data mainly on housing conditions, accommodation expenses and household assets. Information was also collected on furniture and furnishings, household equipment, repair and servicing of house articles, agricultural products produced and consumed at home, transportation, and regularity of purchase and main type of outlet.

**Individual questionnaire.** Like the household questionnaire consisted of 22 pages but had 11 sections. Information was collected for all individuals (within the selected household) who are usual residents of the Cayman Islands. Sections 1-4 collected information on individual characteristics (e.g. sex, age, ethnicity, religion, etc), migration, health, and education. Sections 5-11 dealt with inter alia, employment, marital status, fertility, social issues, income, and disbursements and were administered only to persons 5 years and older. Flash cards were employed for income related questions in order to augment the veracity of the responses as respondents are usually sensitive to these types of questions. Home-grown and gifts items were also captured. Respondents were asked to estimate the quantities and the prices of these gifts and items consumed.

**Household expenditure diary and memory jogger.** This questionnaire was used to record the household’s expenditure on a daily basis for a seven-day period (1 week), this was done for two consecutive weeks. The household “head” and all spenders (a spender is a person 18 years and older, or employed regardless of age) were requested to record all their expenditure over this period. All spenders were given a memory jogger which is really a pocket diary to record all expenditure. The jogger supplemented the household diary since it was convenient to be taken around. The quantity, a full description of items purchased and the amount paid for each item were recorded in relevant columns of the form, for example:

	SUN	MON	TUES	WED	THURS	FRI	SAT		
QUANTITY	FULL DESCRIPTION OF ITEMS Please enter each item on a separate line clearly in pencil				FOR ESO USE ONLY				
					AMOUNT PAID	CODE	QUANTITY	QUANTITY (CODE)	AMOUNT PAID
				\$	¢				
1	5lbs Robin Hood Flour				2	38			
3	Oranges					99			
6	12 oz. Guinness Stout				11	00			
1	30 gals. Garbage Bags (pack of 10)				4	68			
1	250 ml. Dettol Disinfectant				3	58			

**The interview process.** The enumerators visited each selected household at least three times. On the initial visit the enumerator was required to administer the detailed interview for the household and all resident individual members of that household. If no responsible adult was at home when enumerators visited, the interviews were rescheduled. If no responsible adult is available after the third visit, a call-back card introducing the survey and the interviewer was left with instructions and numbers to call and arrange a convenient time for the interview.

Only households with at least one member that has lived in, or intends to live in the Cayman Islands for six months or more were interviewed, i.e. all usual residents of the Cayman Islands. On this first visit, the household head was also given a household expenditure diary to record all the spenders’ purchases and gifts for the following seven days (1 week). All spenders were given a memory jogger to record his/her purchases. During this first week the enumerator kept in touch with the householder via telephone to remind them to enter their purchases in the diary of expenditure. At the end of the first week, the enumerators visited the same households and collected the first week’s diary and the memory joggers and gave them the second week’s diary and memory joggers. On the third and final visit, the enumerator collected the second week’s diary and memory joggers. All spenders in a household who completed all

three sets of questionnaires (the individual questionnaire and the two weekly joggers) were each given a \$25 voucher as tokens of appreciation for taking the time to complete the questionnaires.

**Data quality.** In general, the data are of good quality, the household and person questionnaires were almost entirely pre-coded to eliminate errors in the coding process, often a source of various types of errors. COICOP (Classification of Individual Consumption According to Purpose) codes were applied automatically in the household and person questionnaires to eliminate the need for manually coding these questionnaires, which has in the past been a feature of HBS surveys which have made them especially difficult to process. Since this survey was a combined SLC and HBS it was administratively difficult to implement. Some of the challenges and issues faced in implementing the combined SLC and HBS surveys in the Cayman Islands are as follows:

a) The period for the conduct of the survey was limited to February to the 1st week of June 2007. Ideally, the survey for purposes of establishing the spending pattern of households throughout the year should also be similarly spread. However, due to resource constraints and the fact that the HBS is part of the SLC, the period February to the first week of June 2007 was set. Seasonality was addressed by extending the survey question reference period as follows:

#### Household Questionnaire

- Expenditure on accommodation – annually
- Repair and maintenance of dwellings – annually
- Major types of household expenses – monthly
- Furniture, furnishings and household equipment – annually
- Repairs and servicing of household articles – annually
- Transportation – last 3 months
- Other transportation costs – annually
- In-kind contributions – annually

#### Individual Questionnaire

- Clothing and foot-wear – last 3 months
- Other expenses, medical – last 3 months
- Other expenses, educational and recreational – annual
- Expenses abroad – previous month

b) Due to the special difficulties of implementing this survey and unforeseen challenges, the time expected for its completion turned out to be an underestimate. The most critical challenge was the high turn-over of enumerators. Therefore, additional enumerators were trained by ESO continuously during

February-May because of the large number of drop-outs of enumerators experienced during the first month of the survey.

c) All questions in the survey which requested information on household expenditure had to be coded using an adapted version of the UN's COICOP. This meant that aggregates such as food and non-alcoholic beverages had to be built by adding detailed components of that main group at the seven-digit level in the classification system. This presented computer programming and other related challenges. In addition, frequently households reported expenditures at a main or subgroup level of the COICOP which presented problems for aggregation. Generally, the rule applied in these cases was to examine the proportionate distribution of the expenditure for the item in the group in question and to apply this distribution to the "unclassified" expenditures at the main or sub-group level.

d) The administration of an SLC/HBS survey of this nature was particularly difficult. At the household level, the average length of the interview was one and a half hours. Supermarket vouchers were given as an incentive to encourage participation in the survey. There were some problems delivering these vouchers on time to the households. However, it worked reasonably well in encouraging households to respond. Where the data from the diaries could not be obtained in spite of these efforts and that of the supervisors and the ESO, imputations had to be made using the responses to the question on food purchased in the last week and month from Section 8 of the household questionnaire. This information was reported for the household and served as a back up where information on food was not available from the diaries.

e) There were very few structural problems with the flow of questions in the questionnaire, since it was thoroughly tested through the use of several pre-tests. In order to ensure a high quality of data, certain editing checks were built into the process both at the enumeration stage and within the data entry screens used to capture the data.

Despite the above challenges, a number of interventions aided in the quality of data presented. Firstly, enumerators were trained for a minimum of four days using an enumerators' manual which detailed the procedures for completing each section of the questionnaire. This assisted in ensuring that data returned to the ESO were already of a high quality due to the extensive field and pre-receipt edit checks completed by supervisors and the ESO staff.

## Appendix 2: The Classification of Individual Consumption According to Purpose (COICOP)

Household expenses for consumption goods and services obtained from the 2007 SLC/HBS were classified according to the international standard classification of individual consumption expenditures referred to as COICOP. This classification system is a functional classification of expenditures by purpose or objectives for which these expenditures occurred. The adoption of this classification system makes it possible to conduct comparisons between countries and statistics in different areas.

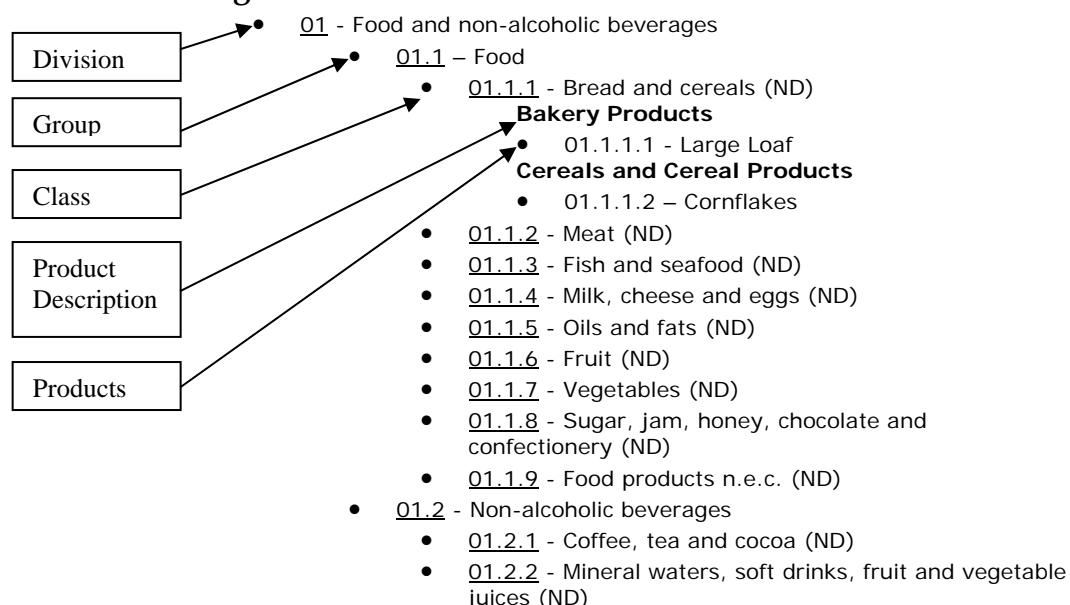
COICOP has 14 divisions, the first 12 of which cover final consumption expenditure of households while the next 2 cover information on reimbursements for foreign travel and from landlords, receipts from owner occupied or, rented accommodation and, meals, dwelling bought/purchased, miscellaneous expenditure, disbursements and, household income. For CPI purposes, only the first 12 divisions are relevant.

The COICOP is a seven-digit classification system, of which the first four digits are international, while the last three are national. As adopted for the Cayman Islands, the first 4-digit international components are structured in the following way:

- 12 Divisions (two-digit level), e.g. 01. Food and non-alcoholic beverages
- 47 Groups (three-digit level), e.g. 01.1 Food
- 117 Classes (four-digit level), e.g. 01.1.1 Bread and cereals

A more explicit example is found below:

**Figure 1: COICOP Structure**



Each division is associated with a specific purpose. At lower levels, majority of goods and services can definitively be assigned to a single purpose; however, some goods and services could be reasonably assigned to more than one purpose. For example, fuel can be used for transport as well as vehicles classified as recreational. To avoid ambiguity, the general rule followed has been to assign multi-purpose goods and services to the division that represents their predominant purpose.<sup>10</sup> Consequently, motor fuel is classified under transport. Another multi-purpose item, “food consumed outside the home” is classified under the division “restaurants and hotels” in the new CPI and not under “food” as done in the old CPI (see Section 4). At levels lower than the division, groups are subdivided into classes identified as products (which are non-durable, durable or semi-durable). Examples of products are as follows:

- Non durables: medicinal preparations (e.g. aspirin), fresh vegetables, disinfectants, pets and related products.
- Durables: therapeutic appliances and equipment (e.g. eye glasses), carpets, purchase of telephone, jewellery, clocks and watches.
- Semi-Durables: Small electric household appliances (e.g., kettles, knives), drape material, toaster, screw driver, all types of books.
- Services: Medical services (e.g. visit to a doctor), employed staff (e.g. maids, babysitters), dental Services, installation and subscription cost (e.g. cable), pre-primary and primary education.

The UN classification system was further amended for the Cayman Islands to allow more specificity in defining products at the national level. Therefore, the COICOP was extended with the last three of a seven-digit code representing the nationally defined product or service and the first four the broad international product groups classified into 12 divisions by purpose. The complete structure of the Cayman Islands COICOP can be found at [www.eso.ky](http://www.eso.ky). The classification system was further extended to include additional divisions to cover monetary transactions and assets outside the scope of the CPI but which were collected in the SLC/HBS.

The application of the COICOP classification system in the collection of expenditure data and in the publication of the CPI has the following advantages:

- Since COICOP is an international classification system, its use allows the direct comparability of the CPI across many countries.
- COICOP is related to the CPC (Central Product Classification) and therefore it allows the CPI to be linked to other statistical classifications

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<sup>10</sup>Statistical Institute of Jamaica “Consumer Price Index Revised Series – January to June 2007”  
p. 9

such as the HS (harmonized system) which governs the classification of traded goods.

- COICOP is used in the System of National Accounts (SNA) 1993 via its use of CPC or related classifications, consequently indices of groups or classes of products and services in the COICOP can be used to deflate similar sub-groups in the SNA.



### Appendix 3. Aggregation of Expense Data from the SLC/HBS 2007

Deriving the 2007 consumption basket for the Cayman Islands involved the aggregation of the expenditure data derived from the SLC/HBS 2007 using the COICOP classification system as described in Appendix 1. There are two levels at which the aggregation of the data was accomplished:

1) Aggregation of individual expense data:

Non-food expenditures such as clothing and footwear, health and education expenses collected for a three-month reference period within the individual questionnaires were firstly aggregated and then annualized at the level of the individual. Aggregation to the level of the household was then performed to ensure the inclusion of these expenditures in the computation of the level of total expenditure for the household which was required. Depending on the expenditure in question the data was annualized by multiplying by a factor of four in the case of expenditures collected using a three-month reference period, by twelve in the case of a one month reference period ( for example, this applied to cellular, electricity and water bills).

2) Aggregation of household expense data

Aggregation of detailed components of furniture and furnishings was aggregated at the five, four, three, two and one digit level of the COICOP for the twelve-month reference period for which they were initially collected. The same was done for repairs and maintenance and vehicle related expenses contained in the housing section of the questionnaire.

3) Aggregation of two week daily diary expenditures

Two categories of expenditure, namely, food and small non-food items such as toiletries were obtained from the daily diaries which were administered to the households over a two week period (one diary per week). The diaries contained expenditure data for all household spenders (defined as all persons eighteen years and over, or all persons employed). Diaries were coded using the COICOP and further aggregated to the household level for both diaries at the 1, 2, 3, 4 and 5 digit levels. Finally the total of the two week expenditure by household was annualized by multiplying by a factor of twenty-six to derive the annual levels of expenditures.

Two separate weighting factors were applied to the diaries to annualize these expenditures. Firstly, a weight doubling the values in the diary was applied



where only one diary was obtained from the household. Secondly, the diary response rate was determined with respect to the response rate on the household and person questionnaires. This, along with the weight derived from the questionnaires district weight was used to raise the diary data to the level of the district.

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