

# CONSUMER PRICE INDEX

4<sup>th</sup> quarter 2007

## 1. Introduction

This issue of Economic and Social Indicators presents the Consumer Price Index (CPI) during the fourth quarter of 2007.

A new CPI series, based on an updated basket of goods and services derived from the 2006/07 Household Budget Survey, has been introduced as from July 2007. The base period is July 2006 to June 2007. Henceforth, all monthly CPI figures will refer to this new base period.

The methodology used for computing the CPI and the inflation rate is given in the technical note at Annex.

## 2. Main movements in the Consumer Price Index – 4<sup>th</sup> quarter 2007.

The Consumer Price Index, which stood at 105.3 in September 2007, registered a net increase of 2.9 points (or 2.8%) to reach 108.2 in December 2007 (*Table 1*).

On a monthly basis, the index rose by 1.5 points in October, 0.8 point in November and 0.6 point in December.

Table 2 shows the net contribution of the main commodities that influenced the CPI from September to December 2007. The main causes for the increase were:

- higher prices of food products mainly milk and vegetables, and
- the upward revision in the price of gasoline and diesel on 2 October 2007 by the APM Committee.

## 3. Changes in sub-indices by division of consumption expenditure - 4<sup>th</sup> quarter 2007

*Table 3* shows the evolution of the sub-indices for the twelve divisions of consumption expenditure during the period under review.

The “*Food and non-alcoholic beverages*” sub-index increased by 5.3% mainly as a result of higher prices of milk (23.9%), vegetables (9.3%), trader’s rice (3.6%), chicken (3.4%), fish (3.0%), and cooking oil (7.4%).

The sub-index for “*Alcoholic beverages and tobacco*” went up by 0.8%. This was largely attributable to price increases of beer and stout (4.6%).

The “*Clothing and footwear*” sub-index registered an increase of 2.8% due to higher prices of some footwear (5.9%) and ready-made clothing (1.8%).

The sub-index for “*Housing, water, electricity, gas and other fuels*” increased by 0.6% mainly due to higher interest rates on housing loans (2.1%).

The sub-index for “Furnishings, household equipment and routine household maintenance” increased by 1.6% mainly as a result of price increases of some washing materials and softeners (4.5%).

The sub-index for “*Health*” rose by 0.6% attributable to higher prices of some medicinal products (1.4%).

The sub-index for “Transport” moved up by 4.1%. This was the result of price increases of gasoline (6.4%), diesel oil (6.2%), motor vehicles (4.5%) and air tickets (5.9%).

The sub-index for “Recreation and culture” increased marginally by 0.2%. This was the result of price increases of some decorative plants and flowers (14.8%), and cinema tickets (3.2%).

The sub-index for “*Communication*” decreased by 0.2% in the fourth quarter of 2007 due to a decline in the prices of mobile phones (7.2%).

The sub-index for “*Restaurants and hotels*” registered an increase of 2.6% mainly as a result of higher charges for food and drinks in bars and restaurants (3.1%), higher prices of some prepared foods (1.8%) and higher rates for hotels and bungalows (32.0%).

The sub-index for “*Miscellaneous goods and services*” increased by 1.3%, mainly attributable to price increases of some goods for personal care and hygiene (2.2%).

The sub-index for “*Education*” remained unchanged from September to December 2007.

#### **4. Comparison with previous series**

The new CPI series is not strictly comparable with the previous series for January 2003 to June 2007 based on the 2001/02 Household Budget Survey because of different consumption patterns of households (Table 1a). However to facilitate a rough comparison, the CPI for January 2003 to June 2007 has been converted to the new base July 2006 - June 2007 =100 in Table 1b. If required, a rough estimate of the new CPI on the old base can be obtained by multiplying the new index by the factor 1.3426.

#### **5. Rate of inflation**

The inflation rate for calendar year 2007 works out to 8.8% and that for financial year 2006/07 was 10.7% (Table 4).

## Note :

- (i) This publication is available on our website <http://statsmauritius.gov.mu>. From the homepage, choose “Publications” followed by “Economic and Social Indicators”, then “Consumer Price Index”.
- (ii) The monthly CPI is also available on our website. It is posted within 5 working days after the reference month.
- (iii) More detailed information on CPI data can be made available upon request.

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Table 1a - Monthly Consumer Price Index, January 2003 - June 2007 and July 2007 - December 2007

<i>Month</i>	<i>( Base : July 2001 - June 2002 = 100 )</i>					<i>( Base : July 2006 - June 2007 = 100 )</i>
	<i>2003</i>	<i>2004</i>	<i>2005</i>	<i>2006</i>	<i>2007</i>	<i>2007</i>
January	105.5	109.7	116.1	123.1	133.9	
February	105.7	110.1	116.7	123.5	134.9	
March	105.6	110.1	117.1	124.2	136.1	
April	105.8	110.4	117.1	124.0	137.5	
May	106.5	110.7	117.2	124.3	138.1	
June	106.9	111.3	117.3	126.2	138.8	
July	107.5	112.5	118.0	129.9		103.7
August	107.4	112.7	118.0	130.9		104.1
September	107.9	113.1	117.3	131.7		105.3
October	108.3	114.6	118.2	132.3		106.8
November	108.4	114.7	118.8	133.3		107.6
December	108.9	115.0	119.5	133.7		108.2
Yearly average	107.0	112.1	117.6	128.1		103.8
<i>Annual change (%)</i> <i>(Inflation rate)</i>	+3.9	+ 4.7	+ 4.9	+ 8.9		+ 8.8

Table 1b - Comparative Monthly Consumer Price Index , January 2003 - December 2007 <sup>1/</sup>

<u>Month</u>	<i>( Base : July 2006 - June 2007 = 100 )</i>				
	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>	<u>2007</u>
<b>January</b>	78.6	81.7	86.5	91.7	99.7
<b>February</b>	78.8	82.0	87.0	92.0	100.5
<b>March</b>	78.7	82.0	87.2	92.5	101.3
<b>April</b>	78.8	82.3	87.2	92.4	102.4
<b>May</b>	79.3	82.4	87.3	92.6	102.9
<b>June</b>	79.6	82.9	87.3	94.0	103.4
<b>July</b>	79.6	83.8	87.9	96.8	103.7
<b>August</b>	80.0	83.9	87.9	97.5	104.1
<b>September</b>	80.4	84.2	87.3	98.1	105.3
<b>October</b>	80.7	85.4	88.1	98.5	106.8
<b>November</b>	80.7	85.4	88.5	99.3	107.6
<b>December</b>	81.1	85.6	89.0	99.6	108.2
<b>Yearly average</b>	<b>79.7</b>	<b>83.5</b>	<b>87.6</b>	<b>95.4</b>	<b>103.8</b>
<b>Annual change (%) (Inflation rate)</b>	<b>+3.9</b>	<b>+ 4.7</b>	<b>+ 4.9</b>	<b>+ 8.9</b>	<b>+ 8.8</b>

<sup>1/</sup> The CPI for January 2003 to June 2007 originally based on July 2001-June 2002 has been converted to the new base July 2006 - June 2007=100

**Table 2 - Net contribution of main commodities that affected the index between September and December 2007**

<b>Commodity</b>	<b>Change in overall index point</b>	<b>% change in price index between September &amp; December 2007</b>
Milk	+0.7	+23.9
Vegetables	+0.4	+9.3
Rice	+0.1	+3.6
Chicken	+0.1	+3.4
Fish	+0.1	+3.0
Cooking oil	+0.1	+7.4
Other food products	+0.1	+1.1
Beer and stout	+0.1	+4.6
Footwear	+0.1	+5.9
Ready made clothing	+0.1	+1.8
Interest on housing loan	+0.1	+2.1
Washing materials and softeners	+0.1	+4.5
Motor cars	+0.2	+4.5
Gasolene and diesel oil	+0.3	+6.4
Airfare	+0.1	+4.5
Expenditure in bar, restaurants & cafes	+0.1	+3.1
Other goods and services	+0.1	+0.3
<b>Total</b>	<b>+2.9</b>	<b>+2.8</b>

**Table 3 : Monthly sub-indices by division of consumption expenditure, July - December 2007***(Base: July 2006 - June 2007 = 100)*

<b>Division</b>	<b>Description</b>	<b>Weight</b>	<b>July 2007</b>	<b>August 2007</b>	<b>September 2007</b>	<b>October 2007</b>	<b>November 2007</b>	<b>December 2007</b>	<b>% change between September &amp; December 2007</b>
<b>01</b>	Food and non-alcoholic beverages	<b>286</b>	106.7	107.2	108.3	110.7	112.4	114.0	<b>+ 5.3</b>
<b>02</b>	Alcoholic beverages and tobacco	<b>92</b>	103.1	105.3	107.3	108.0	108.5	108.2	<b>+ 0.8</b>
<b>03</b>	Clothing and footwear	<b>51</b>	102.8	103.4	103.7	105.0	105.5	106.6	<b>+ 2.8</b>
<b>04</b>	Housing, water, electricity, gas and other fuels	<b>131</b>	101.3	101.3	105.1	105.2	105.7	105.7	<b>+ 0.6</b>
<b>05</b>	Furnishings, household equipment and routine household maintenance	<b>64</b>	103.9	104.4	105.0	105.9	106.7	106.7	<b>+ 1.6</b>
<b>06</b>	Health	<b>30</b>	101.4	104.9	106.4	106.6	106.8	107.0	<b>+ 0.6</b>
<b>07</b>	Transport	<b>147</b>	102.8	102.0	102.0	105.4	106.0	106.2	<b>+ 4.1</b>
<b>08</b>	Communication	<b>36</b>	100.2	100.1	100.0	100.0	99.8	99.8	<b>- 0.2</b>
<b>09</b>	Recreation and culture	<b>48</b>	100.7	100.7	100.7	100.7	100.9	100.9	<b>+ 0.2</b>
<b>10</b>	Education	<b>32</b>	102.7	102.7	102.7	102.7	102.7	102.7	<b>-</b>
<b>11</b>	Restaurants and hotels	<b>43</b>	103.6	104.2	106.0	106.4	108.0	108.8	<b>+ 2.6</b>
<b>12</b>	Miscellaneous goods and services	<b>40</b>	104.6	105.3	106.0	106.7	107.7	107.4	<b>+ 1.3</b>
<b>Total</b>		<b>1,000</b>	<b>103.7</b>	<b>104.1</b>	<b>105.3</b>	<b>106.8</b>	<b>107.6</b>	<b>108.2</b>	<b>+ 2.8</b>

Table 4 - Inflation rate (%), 1974 - 2007

Calendar year	Inflation rate	Financial year	Inflation rate
1975	14.7	1974 - 75	20.6
1976	13.4	1975 - 76	14.7
1977	9.2	1976 - 77	9.6
1978	8.5	1977 - 78	10.1
1979	14.5	1978 - 79	8.0
1980	42.0	1979 - 80	33.0
1981	14.5	1980 - 81	26.5
1982	11.4	1981 - 82	13.4
1983	5.6	1982 - 83	7.5
1984	7.3	1983 - 84	5.6
1985	6.7	1984 - 85	8.3
1986	1.8	1985 - 86	4.3
1987	0.6	1986 - 87	0.7
1988	9.2	1987 - 88	1.5
1989	12.6	1988 - 89	16.0
1990	13.5	1989 - 90	10.7
1991	7.0	1990 - 91	12.8
1992	4.6	1991 - 92	2.9
1993	10.5	1992 - 93	8.9
1994	7.3	1993 - 94	9.4
1995	6.0	1994 - 95	6.1
1996	6.6	1995 - 96	5.8
1997	6.6	1996 - 97	7.9
1998	6.8	1997 - 98	5.4
1999	6.9	1998 - 99	7.9
2000	4.2	1999 - 2000	5.3
2001	5.4	2000 - 2001	4.4
2002	6.4	2001 - 2002	6.3
2003	3.9	2002 - 2003	5.1
2004	4.7	2003 - 2004	3.9
2005	4.9	2004 - 2005	5.6
2006	8.9	2005 - 2006	5.1
2007	8.8	2006 - 2007	10.7



## Technical note

### 1. Methodology used for the computation of the Consumer Price Index

(Base July 2006 – June 2007 = 100)

#### (a) Definition

The **Consumer Price Index** (CPI) is a measure of changes over time in the general level of prices of goods and services, which the private consumer buys or pays for. It is an important macro-economic indicator used for a variety of purposes such as adjustment of wages and pensions and in industrial contracts.

#### (b) Measurement of the CPI

The CPI is measured by computing the average change over time in the cost of a fixed market basket of consumer goods and services. As prices vary, the total cost of the basket also varies and thus the CPI measures the change in the cost of this basket. It provides a way to compare what this basket costs at a given period relative to a reference or base period.

The cost of the CPI basket is assigned a value of 100 in the base period and the costs in other periods are expressed as percentage changes compared to the base period. For example, if the CPI is 110, this means that there has been an increase of 10% in the cost of the basket since the base year; similarly an index of 90 means a 10% decrease in the cost of the basket.

#### (c) The CPI basket

The composition of the CPI basket, which is based on the expenditure pattern of private Mauritian households, has been derived from the 2006/07 Household Budget Survey (HBS) data adjusted for underreporting of alcoholic beverages and tobacco.

The items constituting the basket have been selected on the basis of the importance of household consumption expenditure on them. The item's relative importance, which is called the “weight” (usually expressed as a figure per 1000), is the expenditure share of the item. Non-consumption items such as income tax, social security contributions, purchase of land, shares and life insurance are excluded.

The commodities in the basket are classified according to the UN COICOP (Classification of Consumption Expenditure according to Purpose) with 12 divisions, 43 groups and 84 classes.

(d) Price collection

Prices are the primary inputs in the calculation of the CPI and are collected on a regular basis. Each month, around 7,800 price quotations are collected in respect of 1,080 item indicators from some 400 outlets across the islands of Mauritius and Rodrigues.

Prices of non-perishable items are collected monthly in the nine geographical districts of the island of Mauritius and in Rodrigues.

Prices of fresh fruits, vegetables, meat and fish are collected on a weekly basis from 9 markets in Port Louis, Rose Hill, Q.Bornes, Vacoas, Mahebourg, Flacq, Goodlands, Pamplemousses and Port Mathurin.

Information on rent is obtained from a quarterly rent survey of some 100 rented dwellings.

The prices collected are those that any member of the public would have to pay to purchase the specified goods or services. Any taxes on products attached to the goods are included.

(e) Calculating the CPI

Once the prices have been collected, they are carefully examined for consistency and validity before they are entered into the CPI calculations. Independent random field checks are also made to ensure that price collection is done properly.

The CPI is computed according to the Laspeyres Formula as a weighted average of price relatives of individual items. The weights are fixed and correspond to the base period expenditures.

The formula used for computing the CPI at time  $t$  is

$$I_t = \frac{\sum W_i (P_{it} / P_{i0})}{\sum W_i} \times 100$$

**where,**

- $I_t$  : CPI for period  $t$  with reference to a base period 0
- $P_{i0}$  : Price of item  $i$  at time 0, i.e. during base period
- $P_{it}$  : Price of item  $i$  at time  $t$
- $W_i$  : Weight of item  $i$

The base period is July 2006 to June 2007, the period during which the latest HBS was conducted.

## **2. Inflation**

### **(a) Definition of Inflation**

Inflation is the percentage change in the level of prices (as measured by the CPI) from one period to another.

### **(b) Calculating the Inflation Rate**

In Mauritius, like in many other countries, the rate of inflation is calculated by comparing the average level of prices during a twelve-month period with the average level during the corresponding previous twelve-month period.

Note: More information about the concept, computation and use of the CPI is available online in the publication “HBS 2006/07 and updated CPI” [<http://www.gov.mu/portal/goc/cso/ei664/toc.htm>]