# **Guernsey Retail Prices Index**

## Quarter 4 - 31 December 2007

Issue Date - 23 January 2008



### Introduction

The Guernsey Retail Prices Index (GRPI) is the measure of inflation used in Guernsey. It measures the change in the prices of goods and services bought for the purpose of consumption or use by households in Guernsey. It is published quarterly by the States of Guernsey Policy and Research Unit. The calculation of the GRPI is based on the price change of items within a 'shopping basket'. Whilst some prices rise over time, others will fall or fluctuate and the Index represents the average change in these prices. More detailed information on the RPI and its calculation can be found at the end of this handout.

## **Headlines**

- At the end of December 2007 Guernsey's annual rate of inflation was **4.9%**. This is the same as the figure at the end of September 2007. The equivalent figures for the UK and Jersey were 4.0% and 4.5% respectively.
- Guernsey's RPIX (inflation excluding mortgage interest payments) is 1% higher than last quarter at **3.9%.**
- The **Housing** group, which has the largest weight within the Index, contributed **1.9%** of the overall increase, which is 1% less than last quarter.
- The Index increased to **136.4** (1999 base).

#### **Overview**

The Guernsey RPI increased by 4.9% for the twelve month period ending 31st December 2007. This is the same as in September 2007. The increase over the three months ending 31st December 2007 was 1.1%, compared to 0.6% last quarter.

The Housing group continued to be the largest contributor to the annual change (1.9% out of 4.9%). However, it only contributed 0.2% to the quarterly increase. Bank of England interest rate was reduced during the quarter, lowering the cost of servicing a mortgage. This went some way towards offsetting increases in other areas of the Housing group.

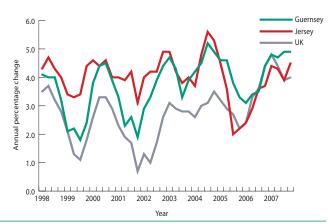
Increases in the price of milk, other dairy products and eggs resulted in the Food Group contributing 0.5% to the quarterly increase (1.1%) due to their relatively high weighting. The annual change in the Food Group was 0.8%.

The next highest contributors were Alcohol at 0.5%, followed by Fuel, Light and Power and Household and Personal Goods at 0.3%.

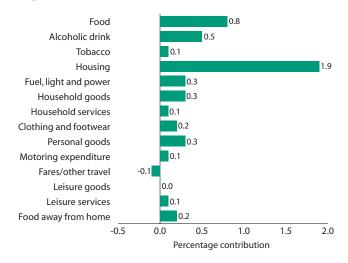
**Table 1: Annual Rates of Inflation** 

Year	March	June	September	December
2002	2.9	3.3	3.9	4.4
2003	4.7	4.3	3.3	3.9
2004	4.2	4.5	5.2	4.9
2005	4.6	4.6	3.8	3.3
2006	3.1	3.4	3.5	4.4
2007	4.8	4.7	4.9	4.9

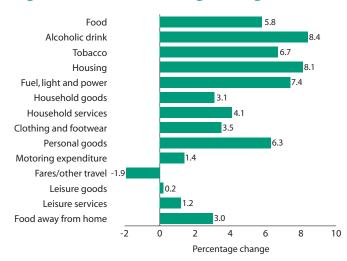
**Figure 1: Annual Rates of Inflation** 



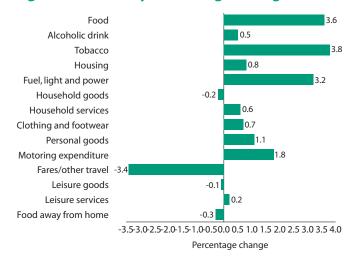
**Figure 2: Annual Contribution to RPI** 



**Figure 3: Annual Percentage Change** 



**Figure 4: Quarterly Percentage Change** 



Note: Individual contributions to the change in rates may not sum to the total due to rounding.

# Main contributions to the annual percentage change

The contribution of each of the RPI groups to the overall annual rate are shown in *Figure 2*.

The Alcoholic drink group, increased by 8.4% (*Figure 3*) since last December- the largest percentage increase of all the groups during the last 12 months. However, it has a low weight within the whole RPI, so this resulted in a overall contribution of 0.5%.

Housing has increased by 8.1%, which, combined with the Group's large weighting, means it remains the largest contributor (1.9% out of 4.9%).

The Food group increased 5.8% over the year and since it holds the second highest weight in the RPI, it contributed 0.8% to the overall annual RPI rate.

# Main contributions to the quarterly percentage change

Half of the groups remained stable this quarter (see Figure 4). The only decrease was seen in Fares / Other Travel (contributing, -0.1% to the quarterly change).

Tobacco increased the most this quarter, but has a relatively low weighting, so contributed 0.1% to the quarterly increase.

The Food group showed the second highest increase and since this group also has the second largest weight, it had the largest upward effect on the quarterly change (0.5%).

Fuel, Light and Power also increased significantly, but its lower weighting resulted in a contribution of 0.1%, compared to the 0.2% contributions of Housing and Motoring. These Groups increased by less, but have higher weightings.

## **RPI Analysis**

Within each group, specific items can be identified as having an upward or downward effect on the Index according to their price increase or decrease. The most salient of which are identified below.

#### Food (3.6%)

The price of milk increased by over 25% this December (the first change in this item for over three years), due to a price rise agreed by the States and the Milk Price Review Panel. The price of other dairy products and eggs (both local and imported) also increased. Pork decreased in price, whereas, poultry increased. Combined with other seasonal variations within the group, there was an overall increase, since the highest weighted items had the largest increases.

#### **Alcohol (0.5%)**

The cost of beers and ciders increased this quarter, however, the cost of wines bought in restaurants, bars etc. decreased. The price of all alcoholic drinks has risen over the past 12 months.

#### **Tobacco (3.8%)**

Prices of cigarettes and tobacco increased this quarter and all the prices increased during the 12 month period.

#### Housing Group (0.8%)

A 0.25% decrease in Bank of England interest rates this quarter was outweighed by increases in the prices of kitchens, bathrooms and heating appliances. During the year, interest rate increases (totalling 0.75%) combined with increasing house prices (measured using a seven year moving average) inflated the cost of home ownership for Islanders with a mortgage. This item has the highest weight within the group, so the increase in this item is reflected by the group index.

#### Fuel, Light and Power (3.2%)

Prices of oil and gas increased this quarter due to rising costs of crude oil in the World Market. Other prices remained stable. However, all prices in this group have increased over the year except coal, which has decreased.

#### Household Goods (-0.2%)

There were some decreases in the group this quarter, including furniture, which is heavily weighted. This outweighed increases in other household goods including soap products, toilet paper and electric cookers.

#### **Household Services (0.6%)**

Most prices remained stable this quarter. Bank service charges decreased and some membership subscriptions increased.

#### Clothing and Footwear (0.7%)

Increases in children's clothing and women's dresses outweighed decreases in women's jeans and tops.

#### Personal Goods (1.1%)

Increases in the cost of hairdressing, jewellery and watches resulted in an overall increase in this group this quarter.

#### Motoring (1.8%)

Increases in the cost of petrol, diesel and repairs and services outweighed decreases in car insurance. The prices of new cars and car insurance were the only prices in this group to fall over the year.

#### Fares & Other Travel (-3.4%)

Decreases in the cost of air travel were more significant than increases in the cost of sea travel, resulting in this being the only group to have a substantial downward effect on the index this quarter and over the year

#### **Leisure Goods (-0.1%)**

Decreases in prices of Hi-Fis and photographic goods combined with increases in the cost of CDs to result in a slight decrease over the quarter.

#### Leisure Services (0.2%)

The prices in this group remained relatively stable this quarter.

#### Food Away from Home (-0.3%)

There were decreases in the price of desserts away from home and increases in the cost of meals at work this quarter.

## **RPI Indices and Reflation Factors**

#### **Table 2: RPI Indices**

	March	lum a	Camtanahan	December
	March	June	September	December
2000	101.2	102.7	103.3	103.9
2001	104.5	105.2	106.0	105.8
2002	107.5	108.6	110.1	110.5
2003	112.6	113.3	113.8	114.8
2004	117.4	118.4	119.7	120.5
2005	122.8	123.9	124.2	124.5
2006	126.6	128.1	128.6	130.0
2007	132.7	134.1	134.9	136.4

#### **Table 3: Percentage Change at Dec 2007**

Period	Percentage change
3 months	1.1
6 month	1.7
9 months	2.7
12 months	4.9
18 month	6.5
2 years	9.5
3 years	13.2
4 years	18.7
5 years	23.4
10 years	44.2

### **Table 4: Index Figures at Dec 2007**

Year of rebase (Index = 100)	Index Figures
1999	136.4
1994	161.9
1988	218.8
1983	292.3
1978	464.1

#### **Table 5: Reflation Factors for 2007**

Year	Reflation Factor
1998	1.46
1999	1.40
2000	1.38
2001	1.32
2002	1.29
2003	1.24
2004	1.14
2005	1.10
2006	1.05
2007	1.00

Note: The percentage change figures given in Table 3 are calculated using unrounded index figures, so may differ slightly to those calculated using the index figures given in Table 2.

#### **RPI Indices**

RPI Indices are used to calculate change in prices over time. By determining the percentage change over one year, the annual RPI headline figures are calculated. The annual Index rose by 4.9% to 136.4 on 31st December 2007 (*Table 2*).

To calculate the percentage change in value between two dates, use the following formula:

Take the most recent value and subtract the earlier value. Divide this number by the earlier value and multiply the answer by 100 to achieve a percentage figure.

For ease of calculation, selected percentage increases for the most recent quarter are given in *Table 3*.

It is possible to calculate percentage changes over longer periods of time. However, it should be taken into account when making long-term comparisons that the 'shopping basket' may have changed over time and households may not be spending money on the same products as they did in the past.

The RPI Index is rebased (i.e. set at 100) approximately every five years, which normally coincides with the introduction of new weights from the Guernsey Household Expenditure Survey (HES). The Indices as they stand at the end of December 2007 for the 1994, 1988, 1983 and 1978 bases along with the current base are shown in *Table 4*.

The RPI is due to be rebased later this year following the completion of the latest HES, the results of which are now available from our website www.gov.gg/pru. The new weights will be applied, along with updates to the shopping basket, to ensure that households' expenditure remains representative.

#### **Reflation Factors**

The effect of inflation is to erode the purchasing power of currency. Reflation factors (*Table 5*) can be used to convert old values to current prices. These figures are calculated annually. For example, £1 would buy more in 1996 than it would in 2006.

To convert a price, multiply it by the appropriate year's value. For example, £100 in 1996 is equivalent to £100 x 1.44 = £144 in 2006.

Reflation factors can also be used in the opposite way. To calculate what £100 in 2006 would have been worth in 1996 divide by the relevant reflation factor.

## **RPI Group Indices**

**Table 6: Group Indices** 

RPI Group	Weight	2006 Dec	2007 Mar	2007 Jun	2007 Sept	2007 Dec	Annual % change	Quarterly % change
Food	127	124.2	125.4	127.9	126.8	131.3	5.8	3.6
Alcoholic Drink	52	156.8	167.3	167.2	169.1	170.0	8.4	0.5
Tobacco	19	264.1	274.4	278.6	271.5	281.8	6.7	3.8
Housing	216	197.0	202.6	206.5	211.3	213.0	8.1	0.8
Fuel, Light and Power	41	167.7	164.5	172.6	174.5	180.1	7.4	3.2
Household Goods	79	125.7	129.1	126.8	129.8	129.6	3.1	-0.2
Household Services	33	151.8	153.3	156.4	157.1	158.0	4.1	0.6
Clothing & Footwear	56	95.1	98.7	97.1	97.8	98.5	3.5	0.7
Personal Goods	49	153.4	158.0	162.4	161.2	163.0	6.3	1.1
Motoring Expenditure	85	142.9	144.5	142.8	142.4	144.9	1.4	1.8
Fares/Other Travel	33	180.9	187.2	184.5	183.7	177.4	-1.9	-3.4
Leisure Goods	63	103.1	104.5	105.1	103.4	103.3	0.2	-0.1
Leisure Services	92	164.2	164.8	165.0	165.8	166.2	1.2	0.2
Food Away from Home	55	149.2	151.3	159.1	154.0	153.6	3.0	-0.3

Individual group indices are presented for December 2006 to December 2007 in *Table 6* along with their corresponding annual and quarterly percentage change (the same group percentage changes are illustrated in *Figures 3 & 4* on Page 2)

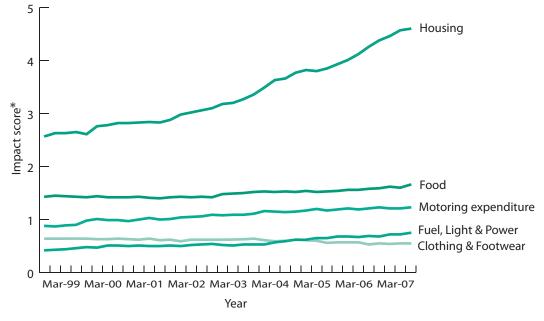
It is possible to use the group indices to track the impact of each group on the RPI over time. This is done by multiplying the index value by the group weight. The results of the main contributors are presented graphically in *Figure 5*.

This quarter, the Food group showed the fastest rate of increase (shown by a steeper slope on the graph). Since this group has the second highest weight, it will have a greater inflationary effect on the overall Index.

The rate of increase of the Housing group was lower this quarter than it has been since 2005. The change in this trend is due to a 0.25% decrease in the Bank of England interest rate, resulting in a downward effect from the mortgage interest component of this group.

Clothing and Footwear, Fuel, Light and Power and Motoring Expenditure remained relatively stable, with just small increases seen in the latter two groups. These groups have the highest weights after Housing and Food.

**Figure 5: Impact of RPI Group Indices** 



<sup>\*</sup>Impact score is calculated by multiplying the group index figure by its weight and dividing by 10,000

## **Comparison with Other Jurisdictions**

Table 7: Headline RPI - Guernsey, Jersey, UK

		Guernsey		U	UK		Jersey	
		Headline RPI	Quarterly Change	Headline RPI	Quarterly Change	Headline RPI	Quarterly Change	
2001	Mar	3.3	0.6	2.3	0.0	4.0	1.4	
	June	2.3	0.8	1.9	1.3	3.9	0.9	
	Sept	2.6	0.8	1.7	0.1	4.2	1.3	
	Dec	1.9	-0.1	0.7	-0.7	3.1	-0.6	
2002	Mar	2.9	1.6	1.3	0.6	4.0	2.3	
	June	3.3	1.0	1.0	1.0	4.2	1.1	
	Sept	3.9	1.4	1.7	0.8	4.2	1.3	
	Dec	4.4	0.4	2.9	0.5	4.9	0.1	
2003	Mar	4.7	1.9	3.1	0.8	4.9	2.4	
	June	4.3	0.6	2.9	0.8	4.2	0.4	
	Sept	3.3	0.4	2.8	0.7	3.8	0.9	
	Dec	3.9	1.0	2.8	0.5	4.0	0.3	
2004	Mar	4.2	2.2	2.6	0.6	3.7	2.1	
	June	4.5	0.9	3.0	1.2	4.8	1.5	
	Sept	5.2	1.1	3.1	0.8	5.6	1.7	
	Dec	4.9	0.7	3.5	1.0	5.3	0.0	
2005	Mar	4.6	1.9	3.2	0.2	4.5	1.3	
	June	4.6	0.9	2.9	0.9	3.6	0.6	
	Sept	3.8	0.3	2.7	0.6	2.0	0.1	
	Dec	3.3	0.2	2.2	0.5	2.2	0.2	
2006	Mar	3.1	1.7	2.4	0.4	2.4	1.5	
	June	3.4	1.2	3.3	1.8	2.9	1.1	
	Sept	3.5	0.4	3.6	0.9	3.6	0.8	
	Dec	4.4	1.1	4.4	1.3	3.7	0.3	
2007	Mar	4.8	2.1	4.8	8.0	4.4	2.2	
	June	4.7	1.1	4.4	1.4	4.3	1.0	
	Sept	4.9	0.6	3.9	0.4	3.9	0.4	
	Dec	4.9	1.1	4.0	1.4	4.5	0.9	

RPI was 4.5% in Jersey and 4.0% in the UK, compared to 4.9% in Guernsey.

The UK had the highest quarterly increase this quarter (1.4%). Each jurisdiction has a relatively high quarterly changes in comparison to the previous quarter.

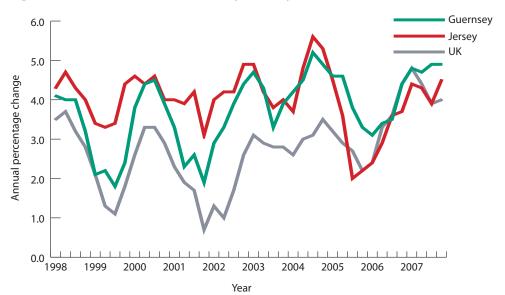
In the UK, increases were seen mainly in the prices of food, non-alcoholic beverages and clothing. The main downward pressures came from gas and electricity bills and air fares. There was also a small contribution from housing due to smaller increases in average mortgage interest payments than the previous year.

In Jersey, the Fuel and Light and Clothing and Footwear groups showed the greatest increases. The greatest decrease was seen in the Fares and Other Travel group (as in Guernsey).

The ten year trends as illustrated in *Figure 6* reveal a broadly similar cyclical trend among the three jurisdictions.

It should be noted that there are methodological differences between the three jurisdictions but the figures are broadly comparable.

Figure 6: Headline RPI - Guernsey, Jersey and UK



RPIX is RPI excluding the mortgage interest component. The mortgage interest component is calculated as a combination of increases/decreases in interest rates combined with the effects of rising/falling house prices.

The Guernsey RPIX was 3.9%, which is higher than last quarter (2.9%).

Average mortgage interest rates decreased this quarter and although seven year rolling average house prices continued to rise, the mortgage interest component of the RPI decreased this quarter.

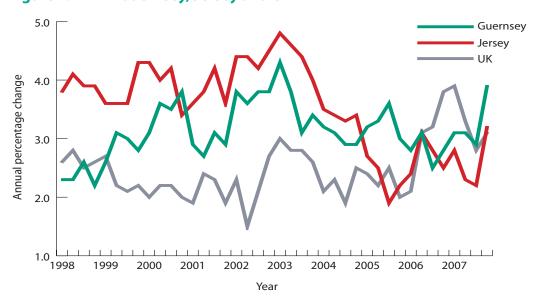
However, other core inflationary pressures were greater during the quarter, in particular, increases in the Food group. Although the headline RPI remains the same as last quarter, RPIX is the highest it has been since 2003.

Guernsey's RPIX remains higher than that of the UK (3.1%) and Jersey (3.2%) this quarter. This indicates that core inflationary pressures were greater in Guernsey this quarter than in the UK or Jersey.

**Table 8: RPIX - Guernsey, Jersey and UK** 

			,,	
		Guernsey	UK	Jersey
2001	Mar	2.9	1.9	3.6
	June	2.7	2.4	3.8
	Sept	3.1	2.3	4.2
	Dec	2.9	1.9	3.6
2002	Mar	3.8	2.3	4.4
	June	3.6	1.5	4.4
	Sept	3.8	2.1	4.2
	Dec	3.8	2.7	4.5
2003	Mar	4.3	3.0	4.8
	June	3.8	2.8	4.6
	Sept	3.1	2.8	4.4
	Dec	3.4	2.6	4.0
2004	Mar	3.2	2.1	3.5
	June	3.1	2.3	3.4
	Sept	2.9	1.9	3.3
	Dec	2.9	2.5	3.4
2005	Mar	3.2	2.4	2.7
	June	3.3	2.2	2.5
	Sept	3.6	2.5	1.9
	Dec	3.0	2.0	2.2
2006	Mar	2.8	2.1	2.4
	June	3.1	3.1	3.1
	Sept	2.5	3.2	2.8
	Dec	2.8	3.8	2.5
2007	Mar	3.1	3.9	2.8
	June	3.1	3.3	2.3
	Sept	2.9	2.8	2.2
	Dec	3.9	3.1	3.2

Figure 7: RPIX - Guernsey, Jersey and UK



## Methodology

#### How is the RPI calculated?

The calculation of the GRPI is based on the price change of items within a 'shopping basket'. Whilst a single household's shopping basket may contain anywhere in the region of one to several hundred items, the 'basket' of goods and services used in the calculation of the GRPI contains over 2,000 items. This list of goods and services remains the same every quarter in order to measure price changes over time.

Every household in the Island spends its income in different ways so it is impractical to monitor changes in the price of every single item on sale. Therefore, the Index contains a representation of what 'typical' consumers in a Guernsey household spend their money on. It should not be confused with a 'cost of living' index, which will vary according to individual expenditure.

#### Which items are included?

All goods and services on which a household typically spends money make up the GRPI. The shopping basket stretches from the inexpensive, such as the cost of a loaf of bread to expensive items such as the cost of new car.

Prices are collected quarterly from over 250 local suppliers, businesses and internet shopping sites and in order to maintain consistency, they are collected from the same establishment each quarter.

#### Are all items equally represented?

The average person spends more of their budget on some items and less on others. Therefore the GRPI is weighted, which means that some items have a higher importance or 'weight' than others. An increase in certain items will have more of an impact on the GRPI than others, for example, an increase in the price of petrol will have more effect on the Index than an increase in the price of milk.

#### How is it kept up to date?

The shopping basket is updated by means of a Household Expenditure Survey (HES), which takes place approximately every five to six years. The main purpose of the HES is to establish the proportion of expenditure spent on particular items in an average household budget. The 'shopping basket' is then revised according to the results of the survey. A new HES was undertaken in 2005/6 and the revised set of items and weights are expected to be introduced in 2007.

#### What is RPIX?

RPIX is simply RPI excluding mortgage interest payments. It is sometimes referred to as the "underlying" rate of inflation. Some jurisdictions use RPIX to set inflation targets as it does not reflect the direct impact of interest rate changes made to control inflation.

## **Further Information**

Please contact Helen Walton (Research & Information Analyst) for further information.

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