



An Phríomh-Oifig Staidrimh
Central Statistics Office

information

notice

Consumer Price Index

Package Holidays The 'seasonal baskets' approach

Summary

1. The methodology used to measure package holidays in the CPI was revised with the introduction of the mid-November 1996 as 100 series. The previous methodology treated all months' holidays as the same item. This resulted in severe seasonal patterns that did not reflect the experience of consumers. It was concluded that holidays taken in different months' should be treated as different items, each with its own weight and price indicator. For example, a January holiday is a different item to an August holiday.
2. Up to 1997, consumers' expenditure abroad was estimated by collecting the appropriate price data from other countries CPIs' to supplement the holiday prices. The current index makes no attempt to measure expenditure abroad and only includes the element of the package holiday that was purchased in Ireland.

Methodology

Up to January 1997, holidays were treated as comparable, irrespective of when they were taken. By treating all holidays as the same item (i.e. treating winter and summer holidays as comparable), severe seasonal patterns resulted - each May the index fell while every August the index rose. This practice also limited the coverage of holiday destinations.

The revised methodology treats different months' holidays as different items (e.g. January holidays are not considered comparable with May holidays). Therefore a different item is priced each month. This means different destinations are priced each month and reflect different expenditure patterns.

Each month's basket is compared with the corresponding month's basket last year (e.g. April 2013 is compared to April 2012). This results in a 12 monthly change being calculated for each month's basket. The monthly change is then derived by linking these different items or monthly baskets. This approach is referred to as pricing 'seasonal baskets'.

Price Collection

The types of package holidays in each monthly basket are shown in Table 1.

Table 1: Types of package holidays in each monthly basket.

Month	Winter sun package holiday	Skiing package holiday	Summer sun package holiday	Summer UK package holiday	UK and US city breaks
January	✓	✓			✓
February	✓	✓			✓
March	✓	✓			✓
April	✓				✓
May			✓	✓	✓
June			✓	✓	✓
July			✓	✓	✓
August			✓	✓	✓
September			✓	✓	✓
October			✓	✓	✓
November	✓				✓
December	✓				✓

The prices used for skiing package holidays and summer sun and winter sun package holidays are collected from tour operators' brochures. The time period (e.g. 1 or 2 weeks) that the package holiday is taken must include the traditional CPI "Pricing Day" (i.e. the 2nd Tuesday of the month) for the current month. The prices are collected in the current month for (i) the current time period and (ii) the corresponding time period last year following the "matched basket" approach.

The prices used for summer UK package holidays and city breaks to the UK and US are collected via the Internet. The transport and accommodation are priced as one purchase/ transaction from tour operators' websites. The time period that the city breaks are taken (e.g. weekend break to London) have the same reference to CPI "Pricing Day" each month. For example, flying to London on the Friday after CPI "Pricing Day" and returning to Dublin on the Sunday after CPI "Pricing Day". The prices are collected one month in advance of travel in the current month. They are compared against the prices collected for the corresponding month last year.

Weights

Monthly Weights

By comparing holidays in January with holidays in January from the previous year, any seasonal distortions are removed. Such comparisons give an accurate 12 monthly change for each monthly basket (i.e. January, February,....., December).

Once the 12 monthly change or relative has been calculated the baskets must be linked to each other. This link is done by applying *monthly weights*. The monthly weights are derived from expenditure on travel abroad by Irish residents. Business expenditure is excluded as it falls outside the scope of the CPI. Expenditure on visiting friends or relatives etc. is also excluded as these are private travel arrangements. This expenditure is captured by tourism surveys.

The monthly expenditure weights are fixed and may therefore be thought of as monthly factors or coefficients. The monthly expenditure weights M sum to unity:

$$\sum M_{Jan} + M_{Feb} + \dots + M_{Dec} = 1$$

While the distribution of package holidays is spread throughout the whole year, the summer months (July and August) have the greatest weight and January has the lowest weight. As a result, price changes during the summer months (July and August) will have a greater impact on the overall package holiday index than price changes during January.

Destination Weights

As each month's holidays are treated as different items, an individual basket is constructed for each month. These monthly baskets reflect not only the different destinations typically visited during each month, but also the changing relative importance of these destinations over the year. This practice has allowed the coverage of holiday destinations to increase significantly.

For example, while the Canary Islands are a popular destination throughout the year, their relative importance declines during the summer months, as other sunshine destinations like Portugal and Turkey etc. compete for market share. Other destinations, such as Austria, Italy and Switzerland are very popular and account for a significant proportion of holiday expenditure during the late winter and early spring months. This is mainly due to the popularity of skiing holidays. By late spring, these skiing resorts are no longer included in the baskets.

The destination weights are constructed from monthly air traffic volumes (i.e. numbers of persons travelling). These volumes not only highlight which destinations should be included in each basket but also the relative importance of these destinations. In order to satisfy the *expenditure weight* criterion, destination volumes are converted to estimated expenditures by applying average prices. The average prices are the average price of the most popular resorts at each destination and are based on two people sharing for one week. Unlike the monthly expenditure weights, the destination weights are price updated each month.

Calculation of the index

The 12 monthly change or relative (r) is calculated using the following formula:

$$r = \frac{\sum D_c \times \left(\frac{P_c}{P_{c-1}} \right)}{\sum D_0}$$

where:

P_c and P_{c-1} are the current (c) and previous period ($c-1$) period average prices respectively of each destination.

D_c and D_0 are the expenditure weights for each destination at the current (c) and (0) base period respectively for each destination.

\sum represents summation over all destination weights for a particular month.

Linking months

Each month, the appropriate basket is surveyed and the 12 monthly change or relative (r) is calculated as above. To link each month, the appropriate monthly expenditure weight or factor (M) is applied to the 12 monthly change or relative (r) to give the overall monthly change or relative (R) for package holidays as follows:

$$R = I + [(r - I) * M]$$

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