



**Central Statistics Office**  
An Phríomh-Oifig Staidrimh

## Consumer Price Index

### Introduction of Updated Series

**Base: Mid-November 1996 as 100**



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## Consumer Price Index (CPI)

### Introduction of Updated Monthly Series (Base: November 1996 = 100)

#### Index Updating and Rebasing

This article describes the latest regular updating of the Consumer Price Index (CPI). Commencing with mid-January 1997 the index is being compiled in respect of the second Tuesday of each month; previous series were compiled quarterly for the months February, May, August and November. The index is being compiled using updated weights derived from the results of the 1994-95 large scale national Household Budget Survey (HBS). The sample of items covered by the index and the sample of shops in which they are priced throughout the country have also been updated to ensure that they continue to be representative of current consumer tastes and retailing structures. The methodology and scope of the index remains virtually unchanged.

An EU *Harmonised Index of Consumer Prices (HICP)* is also being introduced. This index is used for intra-Community comparisons and covers the range of consumer goods and services for which the measurement of price change is harmonised in all Member States.

The Consumer Price Index (CPI) is designed to measure the change in the average level of the prices (inclusive of all indirect taxes) paid for consumer goods and services by all private households in the country. It is compiled by the Central Statistics Office (CSO). The index is issued through the Government Information Service (GIS) approximately four weeks after the date to which it relates. It is subsequently published in the monthly *Economic Series* and in the quarterly *Statistical Bulletin*.

The updated index is being published to base mid-November 1996 as 100. Indices calculated to the former mid-November 1989 base are also being published for continuity purposes. Linked indices calculated to the other earlier bases (i.e. July 1914, mid-August 1947 and 1953, mid-November 1968, 1975 and 1982) are available on request. The HICP is also being published to base mid-November 1996 as 100; it is issued by the Statistical Office of the EU (Eurostat) to base year 1996 as 100 for all Member States.

The CPI reflects changes in prices paid in market transactions, the bulk of which are collected each month from a representative panel of retail and service outlets throughout the country. Other price quotations are collected directly by post and telephone. The CSO wishes to place on record its appreciation of the co-operation and assistance it receives from business concerns in this connection each month. The quotations relating to

individual concerns are treated as strictly confidential and are not divulged in an identifiable form by the CSO to any other Government Department or outside body.

#### Definition and Purpose of the CPI

The CPI measures in index form the monthly changes in the cost of purchasing a fixed representative "basket" of consumer goods and services (i.e. Laspeyres index formula). The quantity of each item in this basket is proportional to the average amount purchased by all households in the country as determined by the 1994-95 Household Budget Survey. Identical items are priced in the same outlet on each occasion so that changes in the cost of this constant basket reflect only price changes. Since 1968 these index weights have been regularly updated every seven years.

The CPI measures price change. It is specifically designed *not* to take into account changes made by households to their pattern of expenditure (e.g. switches from expensive meat cuts to cheaper cuts, or vice versa) in response to changes in prices, income levels, family composition, tastes, consumer preferences or market conditions. Furthermore, payments such as income tax and social insurance contributions, which determine disposable income, are not covered. The CPI is a price index, not a cost of living index. However, the most important factor determining changes in the cost of living is the extent to which consumer prices of goods and services vary. It is only this particular aspect of the cost of living which is measured by the CPI.

#### EU Harmonised Index of Consumer Prices (HICP)

The Maastricht Treaty on European Union set a timetable for achieving Stage III of Economic and Monetary Union (EMU) by 1 January 1999 at the latest. Participating Member States are required to achieve a high degree of economic convergence, measured in particular in relation to four criteria. One of these, as stated in Article 109j of the Treaty, requires Member States to have sustainable price performance and an average rate of inflation over a year that does not exceed by more than 1.5 percentage points that of, at most, the three best performing Member States in terms of price stability. The Protocol on the convergence criteria states that "inflation shall be measured by means of the Consumer Price Index on a comparable basis, taking into account differences in national definitions". The compilation of the HICP is



governed by *Council Regulation (EC) No. 2494/95 of 23 October 1995 concerning harmonised indices of consumer prices and Commission Regulation (EC) No. 1749/96 of 9 September 1996* which specifies the initial implementing measures.

HICPs are not intended to replace national Consumer Price Indices (CPIs). These indices are designed expressly for international comparisons within the EU. The National Statistical Institutes of the Member States and the Statistical Office of the European Communities (EUROSTAT) have been collaborating closely over the last three years to harmonise CPIs. The first outcome of this work was the *EU Interim Index of Consumer Prices (IICP)* compiled by all Member States during 1996. The IICPs were derived from national CPIs by excluding those categories of goods and services which were not treated in a comparable manner in all Member States.

The second stage of harmonisation began with the publication of the January 1997 HICPs. Although the HICPs are more harmonised in coverage and methodology than the IICPs, full harmonisation has not yet been reached. Nevertheless, the HICPs provide an improved basis for comparing consumer price inflation in EU Member States than simply comparing the national CPIs or the IICPs. The HICP currently includes approximately 87% of the All Items CPI expenditure weightings. Discussions are ongoing between EU Member States and the EU Commission on how best to achieve greater harmonisation.

The main items of consumer expenditure which are still excluded from the coverage of the HICP are 'health', 'education', and 'owner occupied housing'. Institutional differences between Member States make it difficult to agree on a common methodology. In some countries the State subvention is directly paid to the relevant institution and the public are charged subsidised prices; in other countries the public pay the economic price and receive State subvention in the form of a social welfare transfer. Difficult methodological issues also arise in the case of owner occupied dwellings which conceptually may be treated on an *acquisition* (e.g. new house prices), *consumption* (e.g. rental equivalent or opportunity cost) or *payment* (e.g. mortgage interest) basis. Ireland and the UK include mortgage interest in their index, whereas some other countries cover changes in imputed rent (i.e. equivalent to rents paid by tenants of comparable privately owned rented dwellings, or exclude owner occupied housing from the index coverage).

### Previous CPI Updatings

Despite continual changes in consumer tastes and preferences, standard of living, and in the range of goods and services available on the market, household purchasing patterns generally change slowly over time. It is this relative stability in the pattern of household

purchases which permits the use of fixed weighting patterns in the compilation of the CPI. However, these index weights must be periodically updated if they are to continue to be representative of current expenditure patterns. Six different weighting bases have been used to date in the compilation of the index since the foundation of the State in 1922. The main features of these earlier index series are briefly described below:

#### (i) *Index with base July 1914 as 100*

This was the first official index of consumer prices compiled for the State. It was introduced in respect of March 1922. The expenditure basis represented the purchasing pattern of working class families in 1922 as derived from a Household Budget Inquiry conducted in June of that year. This index was compiled quarterly up to August 1947. The weighting basis was scheduled for revision during the late thirties, but plans for a Household Budget Survey necessary for this purpose had to be postponed because of the abnormal pattern of consumer expenditure during the 1939-45 war years and subsequent period. As an interim measure an updated weighting basis was introduced in August 1947 using alternative data sources.

#### (ii) *Index with base mid-August 1947 as 100*

This second series was titled the *Interim Cost of Living Index (Essential Items)*. It was compiled for each quarter from mid-August 1947 to mid-August 1953. The weighting basis related to the purchasing pattern of non-agricultural employee households. This was estimated from national income and expenditure data combined with the results of the *National Nutrition Survey* undertaken in 1946. By 1951 consumer expenditure had stabilised to what appeared to be normal post-war patterns and a large-scale urban Household Budget Inquiry was conducted during 1951-52 to provide up-to-date index weights.

#### (iii) *Index with base mid-August 1953 as 100*

This index series was introduced for mid-November 1953 and was compiled each quarter up to and including mid-November 1968. While the interim index related only to non-agricultural employee households the weighting basis of the new index extended to *all urban households*. In addition, the coverage of the index was extended to include the full range of consumer goods and services. The former title *Cost of Living Index* was also changed to the present official title *Consumer Price Index* to avoid any possible misunderstanding that the index measured



changes in the cost of living rather than price changes.

(iv) *Index with base mid-November 1968 as 100*

This index series was introduced for mid-February 1969 and was compiled each quarter up to mid-November 1975. The weighting basis related to the expenditure pattern of *all urban households* as determined from the results of the 1965-66 Household Budget Inquiry. In addition to the introduction of revised weights a number of other major updatings of the index were also undertaken. The number of separate varieties priced was increased from 191 for the former series to 343. A revised national panel of retail and service outlets representative of the existing retail structure was selected. Prices were collected on both the old and new basis in two separate inquiries with fifteen days intervening during November 1968. Account was taken of any price changes which occurred during this intervening period and appropriate adjustments were made to ensure that complete continuity was maintained.

(v) *Index with base mid-November 1975 as 100*

This index series was introduced for mid-February 1976 and compiled each quarter up to mid-November 1982. The weighting basis of the index was extended to *all households in the country (i.e. urban and rural)* on the basis of the results of the 1973 national Household Budget Survey. The number of varieties prices was increased from 343 for the former series to 685. No major change was made to the existing panel of local shops in which these items were priced.

(vi) *Index with base mid-November 1982 as 100*

This index series was introduced for mid-February 1983 and was compiled each quarter up to mid-November 1989. The weighting pattern continued to relate to all households in the country based on the results of the 1980 national Household Budget Survey. Other major updatings of the index were also completed. The selection of varieties priced was substantially revised and increased in number from 685 to 722. The selection of local outlets in which the prices were surveyed was also extensively overhauled. As with November 1968 updating this necessitated for continuity purposes two separate national price collections on the old and new basis, respectively, within fifteen days of each other.

Since 1968 the CPI has been regularly updated on a seven year cycle (i.e. November 1968, 1975, 1982, 1989 and

1996). For this purpose large-scale Household Budget Surveys have also been completed every seven years (i.e. 1965-66, 1973, 1980, 1978 and 1994-95).

### Changes Made in Current Updating

The following are the main changes made in the current updating:

(i) *Updating of sample outlets*

Minor adjustments were made to the existing panel of outlets in which prices were surveyed to ensure that it remained representative of retail distribution structures (e.g. inclusion of new shopping centres and the increase in the proportion of supermarkets).

(ii) *Updating of sample of goods and services priced*

The representative sample of goods and services covered by the index is updated at each updating to ensure that it continues to be representative of consumer tastes and purchasing practices. In all some 178 varieties were added or substituted (e.g. home computers, musical instruments, football strips, computer games, day-care creche facilities, mobile telephones, condoms and hygiene products).

(iii) *Monthly frequency*

Commencing January 1997, the CPI is being compiled and published on a monthly basis. This development stemmed from the legal requirement to compile a monthly Harmonised Index of Consumer Prices (HICP) to comply with Protocol 109j of the Maastricht Treaty.

(iv) *Discontinuation of seasonal adjustment*

The traditional practice of seasonally adjusting the price changes for eggs, potatoes and tomatoes has been discontinued.

(v) *Adjustment for understatement of tobacco expenditure estimates*

The expenditure weight for alcoholic drink has always incorporated an adjustment based on fiscal duty data to allow for understatement in the Household Budget Survey. It was also considered necessary to make a similar adjustment for tobacco on this occasion.

(vi) *Exclusion of expenditure incurred abroad*

The former index item 'Expenditure Abroad' covered not only the cost of holidays and travel

abroad paid for in Ireland, but also any personal expenditure actually incurred abroad (e.g. drink, food, accommodation, etc.). The latter has been excluded in the current updating. A new variety has been substituted covering 'Package Holidays and Tours' paid for domestically. As a result of this change the weights for air and sea travel now also reflect the domestic payments made for privately arranged journeys abroad.

### Population Coverage

Since November 1975 the CPI weighting has been representative of the expenditure patterns of all private households in the country. These households include over 97 per cent of the total population. The index weights do not reflect the expenditure of persons resident in institutions, boarding houses, barracks, other non-private households or visitors from abroad.

### Coverage of Consumer Goods and Services

In principle the CPI covers all consumer goods and services on which private households incur expenditure. In addition to food, drink, clothing, footwear, etc. the index coverage includes for example:

house insurance, motor taxation and insurance; driving licences; subscriptions to clubs, societies, associations and trade unions; mortgage interest payments and credit purchase instalments.

Being a price index, the CPI cannot in practice cover goods and services which either have no price or cannot be priced. For this reason the following items of household expenditure are *excluded* from the index coverage:

- (i) church and charity donations;
- (ii) personal cash allowances;
- (iii) lottery and betting payments.

Furthermore, since the CPI is based on the concept of household expenditure actually incurred (i.e. market transactions) the following non-purchased consumption items are also excluded:

- (iv) value of own farm or garden produce consumed by household;
- (v) social welfare and other benefits in kind.

The following items of expenditure are also excluded from the scope of the index because they are considered to be savings or investments, namely:

- (vi) life assurance premiums, pension contributions,

mortgage capital repayments, repayments of other personal loans, capital expenditure on the outright purchase of a house or on major structural extensions and repairs, other forms of savings and investments;

- (viii) social insurance contributions and income tax.

To avoid possible misinterpretation it must be emphasised that the exclusion (or inclusion) of an item from the CPI coverage does not necessarily result in the index being decreased (or increased). The CPI measures price change from one period to another; it does not measure absolute expenditure levels. The exclusion of an item is equivalent to including it in the CPI with its appropriate weight and attributing to it the *overall* price change of all other items combined. Similarly, the inclusion of an additional item in the index coverage will increase (or decrease) the index only if the percentage change in its price is greater (or less) than that of the rest of the index, and then only in proportion to its weight in the fixed market basket.

### Weighting Basis of Updated CPI

The weighting pattern of the updated CPI series now being introduced is based on the latest available estimates of the current average weekly expenditure on consumer goods and services by all private households in the country. These estimates were derived almost entirely from the results of the large-scale national Household Budget Survey (HBS) which was conducted by the CSO during 1994-95 specifically for this purpose. The survey covered a national representative sample of 7,877 private households. Field work commenced in June 1994 and finished in July 1995.

The sample of households which participated in the survey provided particulars of household composition, accommodation, facilities and regular household expenses (e.g. rent, electricity and gas expenses, etc.). Individual household members aged fifteen years and over also provided details of their income and regular personal expenditure (e.g. insurance premiums, motor tax, etc.) and maintained detailed records of their day-to-day expenditure over a period of fourteen consecutive days. The first report on the survey was published in January 1997.

The index expenditure weights were derived from the results of the 1994-95 survey as follows:

- (i) Household expenditure relating to those items excluded from the CPI coverage was eliminated.
- (ii) The retail value of own farm and garden produce consumed by households, summarised as both household income and expenditure in the Household Budget Survey, was eliminated from the relevant expenditure headings. This was



necessary because the CPI by definition relates to market transactions.

- (iii) Estimates of the average household expenditure on alcoholic drink and tobacco derived from the Household Budget Survey were understated (a common phenomenon in surveys of this type) and were adjusted on the basis of estimates based on fiscal duty payments after due allowance for tourist and business expenditure.
- (iv) The survey expenditure estimates, which relate to the period from June 1994 to July 1995, were updated for price changes up to mid-November 1996 using the percentage changes between June 1994-July 1995 and mid-November 1996 in the prices of the individual items covered by the former index series. Accurate information was not available on any quantitative change in the detailed pattern of household consumption during this sixteen month period; no adjustments were made for this.

The average weekly value of the resulting CPI market basket was £318.04 at mid-November 1996 price levels. It related to an average household consisting of 3.279 persons.

### Sampling Design of the CPI

The CPI is based on a pyramid of samples. As already described, the weighing basis of the index is derived from the average expenditure pattern of a national representative sample of private households. Sampling procedures are also used in the monthly collection of prices. It would be impossible to price every brand or variety of every item available on all days each month. In practice, it suffices to price *sample varieties* for a representative *sample of items* in a national representative *sample of shops* on a single *sample day* each month. As the index is intended to reflect only price change, the samples of identical varieties and shops are retained unchanged for as long as possible during the life span of the series. This ensures that extraneous factors unconnected with price change, which would otherwise affect the index calculations, are strictly controlled.

### Selection and Weighting of CPI Items

A fixed representative sample of consumer goods and services is chosen for regular monthly pricing so that their price changes, appropriately weighted in combination, provide an accurate measure of the overall price movement of all household purchases. In choosing the actual varieties to be priced the full range of goods and services covered by the index is first arranged into a logical system of broad commodity groups (e.g. household durable goods), and constituent categories of items (e.g. electric/gas appliances) as shown in Appendix 1. At this stage, one or more of the constituent varieties (e.g.

cookers, refrigerators, washing machines, etc.) is selected within each of these item categories on the basis of their relative importance, representative nature and suitability for regular pricing so that their price changes, appropriately weighted in combination, are representative of the average price change for the item category as a whole.

The full index expenditure weight for a particular item category is distributed over the constituent priced varieties. This is done in two stages. First, the average expenditures relating to each of the priced varieties are determined using the detailed average expenditure estimates from the Household Budget Survey (428 categories) and available market information. Second, the expenditure corresponding to unpaired varieties in the item category is either added directly to the weight of similar varieties considered to exhibit the same price trend, or is distributed proportionately over all the priced varieties. From the statistical point of view this weight imputation process gives as accurate an assessment of the price movement of the item category as a whole as would result if all constituent varieties were individually priced. In this fashion, the index reflects the price movements of the particular varieties priced and the related varieties which they represent - i.e. the full range of consumer goods and services covered by the CPI.

In introducing the present index it was necessary only to make some minor adjustments to the selection of varieties priced in the former series. A number of additional items were included to reflect recent market changes. These were surveyed for the first time in the November 1996 price collection. The full listing of item categories covered in the present series and their corresponding percentage base expenditure weights are given in Appendix 1. The representative constituent varieties priced within each of the item categories are also listed. The total number of different varieties priced is 985; this is 178 more than the number priced in the former series.

A total of 456 varieties are priced locally. The remainder either relate to national enterprises (e.g. electricity, bus and rail services, post and telephone charges) and small groups of companies (e.g. domestic gas, fuel oil, etc.), or need not be comprehensively priced at local level (e.g. doctors, dentists, opticians, regular subscriptions). These varieties are priced directly by the CSO in postal and telephone inquiries. A full list of these surveys is given in Appendix 2.

### Local Pricing Operation

The local pricing arrangements used for the former series were continued without any major change. Some adjustments were made to local selections of sample shops in a few instances to reflect changes in retailing structures. Pricing in the Dublin metropolitan area continues to be completed by officials of the CSO. In other areas prices



are collected by a panel of approximately 150 part-time private Price Collectors on a fee basis.

As in former series the 456 varieties priced locally are divided into three separate groups of related items corresponding generally to particular types of shops. Three separate Price Booklets are used; one for each group, namely:

- *Booklet 1* (229 varieties) relates to food, drink, tobacco and household non-durable goods;
- *Booklet 2* (161 varieties) relates to clothing and household durable goods;
- *Booklet 3* (66 articles) relates to personal services, fuel, entertainment and other articles.

The total number of these three types of Pricing Booklets and their distribution over towns of different sizes is summarised in Table 1. No significant change was made to the regional or town size distribution of Pricing Booklets. All towns with 10,000 or more inhabitants are covered and the number of Pricing Booklets completed in each is proportional to their population. National representative samples of the smaller towns are taken. Booklet 2 (i.e. clothing and household durable goods) continues to be priced mainly in the larger towns with more than 5,000 or so inhabitants since these towns account for the bulk of consumer expenditure on these items. Pricing Booklet 1 is designed to be priced in a supermarket or other types of shop to ensure a representative coverage of the grocery sector. However, some particular categories of items in this Booklet (e.g. meat, fish, fruit and vegetables, alcoholic drink) are priced in the most popular outlets selling these products in the locality (e.g. specialist or supermarket).

**Table 1: Geographical Distribution of Pricing Booklets**

Town Size (1991 population)	Towns		Number of Pricing Booklets		
	Total No.	CPI No.	Type 1	Type 2	Type 3
Greater Dublin Area	2	2	35	25	35
Cork, Limerick, Waterford and Galway	4	4	18	10	9
Other towns with 10,000 or more inhabitants	21	19	27	16	15
Towns with 5,000-10,000 inhabitants	31	22	22	20	20
Towns with 3,000-5,000 inhabitants	25	15	12	8	10
Towns with 1,500-3,000 inhabitants	47	7	7	1	5
Towns with under 1,500 inhabitants	504	13	13	0	6
Total	634	82	134	80	100

## Pricing Procedures

Pricing procedures are strictly based on the principle that an *identical* quality or brand of each selected variety must be priced as far as possible in the *same* shop on each occasion.

The CSO specifications of selected varieties are of a general nature. These delineate a range of products (i.e. particular brands, qualities, sizes, etc.) from which individual Price Collectors are free initially (or on replacement) to choose a specific product for regular pricing. For example, in the present series a selection of four different varieties is listed under the item heading *tinned vegetables*. One of these varieties is *baked beans*. No further specifications are given and individual Price Collectors are free initially to select for regular pricing any of the different varieties of baked beans available locally.

The only restriction on their choice is that the particular variety selected has to be popular, suitable for regular pricing (i.e. can be specified precisely) and likely to be available in the long term. Once chosen initially, individual Price collectors are required to price the identical variety in the same shop on each successive month. Because of the monthly interval intervening and the possibility that different Price Collectors might be involved, the Price Booklets are specially designed so that the exact specification of each selected variety is recorded to ensure that the identical set is priced on each occasion as required.

Under these arrangements the specific products priced by different Price Collectors for a particular variety are not the same. This is not necessary since the index is concerned with measuring *price change* and not the absolute level of average price of particular items on each occasion. The method used ensures that the prices of a wide variety of brands and qualities are collected in different locations and, reflecting as they do local tastes and preferences, give a better representation of the price movements of the variety in question than would be realised if a single narrowly defined identical variety was priced in all locations.

A further advantage of this approach is that it facilitates the handling of discontinuities which can occur in the monthly sets of price quotations due to brand and quality changes. If a Price Collector discovers that a particular product is no longer available, an alternative popular article is substituted in its place. The Price Booklets are designed to allow the detailed specification of this new product to be inserted. The particular discontinuity is restricted in this manner to a single Price Booklet and the relevant price is excluded for the index calculations until two consecutive monthly quotations are again obtained for the substitute.

Price Collectors are also allowed to substitute a new article in place of any original product which is in low supply or



no longer in popular demand locally. However, the price of a particular product is used in the compilation of the index only when two consecutive monthly price quotations are available for it.

A change in a shop surveyed is also treated as a discontinuity and the prices for the particular variety affected are not used in the index calculations until two successive monthly quotations are obtained from the substituted shop. The Price Booklets are designed so that the shop in which each particular variety is priced is clearly identified. If a particular outlet can no longer be used (e.g. goes out of business, refuses to co-operate, etc.) the Price Collector replaces it with a similar popular shop in the same area.

The CSO officials who survey prices in Dublin are instructed in the Office. An official of the CSO regularly visits all other Price Collectors to ensure that the pricing arrangements are adhered to.

### Price Quotations Collected

The prices collected are those which are actually paid by the consumer in cash transactions. Estimated, average or ranges of prices are not acceptable. The price quotations include indirect taxes. Credit charges are ignored and discounts are also excluded unless given to everybody. Special offer and sale prices are accepted if they were operative on the pricing day, but price quotations for shop-soiled, damaged or sub-standard articles being sold at clearance prices are not accepted. List prices are ignored unless they are actually charged to the consumer.

### Postal and Telephone Pricing

The postal pricing inquiries undertaken for the new monthly CPI series are listed in Appendix 2. All postal inquiries conducted for the former series were retained with suitable revisions and updating. These inquiries are generally conducted on a quarterly basis (or more frequently where necessary) spread systematically throughout the year.

### Housing Costs

Being based on the payment concept the Consumer Price Index covers housing costs actually incurred. Specific account is taken of changes in the cost of the following housing items:

- (i) Rent (privately owned and Local Authority);
- (ii) Local Authority service charges;
- (iii) House insurance (all dwellings);

- (iv) Repairs and decorations (all dwellings);
- (v) Mortgage interest payments (dwellings owned with mortgage).

In the case of mortgage interest the gross payment (i.e. before deduction of income tax relief) is used for both weighting and pricing purposes. The capital element of mortgage payments is not included in the index as it relates to the acquisition of a valuable capital asset (i.e. the dwelling).

### Price Indicator for Mortgage Interest

Mortgage interest was first included in the CPI at the November 1975 updating. The same methodology is continued for the present series. For a particular mortgage the interest payment at any given time depends on the rate of interest, which may be fixed or variable, and on the amount of the mortgage debt still outstanding. The debt outstanding, in turn, depends on the original size of the mortgage, which is linked to the price of the house when the mortgage was taken out and in most cases (i.e. non-endowment) on the age of the mortgage. The fixed expenditure pattern covered by the index reflects the average mortgage interest costs of the full set of mortgages of varying ages which existed in the base period.

As time progresses new mortgages are initiated at current house price levels and old mortgages are terminated early (e.g. house is sold) or paid off. The original loans in these latter instances were quite small because they were entered into when house prices were far lower 20-25 years ago. Because of this the estimation of changes in mortgage interest costs needs a special type of price indicator adhering as close as possible to the *Laspeyres* concept of a fixed basket as used elsewhere in the index. This is done by estimating from month to month the mortgage interest paid by a standard set of households with mortgages of varying ages (i.e. fixed age pattern).

The interest cost for this standard set of mortgages in any month is estimated on the basis of the aggregate debt outstanding for the mortgages of varying ages. This will depend on the house price ruling when the mortgage was taken out, on the percentage advance (assumed constant) and on how much has been repaid (allowing for premature terminations). In this approach the monthly change in interest costs reflects both the change in interest rates and the change in estimated house price levels over time. Non interest cost effects are excluded by controlling (i.e. keeping constant) the factors giving rise to them. In practice, there are three different types of mortgages, namely:

- (i) where the interest rate is variable and the mortgage debt is gradually paid off (i.e. building Society/Bank mortgages where a standard repayment term of 20 is taken);

- (ii) where the interest rate was fixed until the autumn of 1987 and then a variable rate was adopted (i.e. Local Authority mortgages where a standard repayment term of 25 years is taken);
- (iii) where the interest rate is fixed and the full mortgage debt remains outstanding until the end of the mortgage term (i.e. insurance endowment mortgages).

Building Society/Bank and Local Authority mortgages are separately covered in the current index. Insurance endowment mortgages are not explicitly covered as the number involved is relatively low. Their weight is imputed to Building Society/Bank mortgages.

Where the interest rates are variable (i.e. where the rate charged in all cases is the current rate of interest irrespective of the age of the mortgage) the appropriate mortgage cost indicator is the product of:

- the index of current interest rates; and
- the index of mortgage debt outstanding for the fixed age pattern of mortgages.

The indicator of mortgage debt outstanding is estimated as the change in the weighted average of house price levels in successive monthly periods where the relative weights decline with age of mortgage reflecting the gradual repayment of mortgages over time (including premature terminations).

In compiling these indicators the house price levels were estimated by linking the following series:

- *House Building Cost Index* compiled by the Department of the Environment from January 1975 to date;
- *Wholesale Price Index* relating to the price of building and construction materials and labour rates compiled by the CSO from 1953-1975.

### Credit Purchase Payment

Instalment payments on *credit purchase agreements* have been covered in the CPI since the November 1982 updating. These are legal contractual agreements for the purchase of a particular product. Household Budget Survey expenditure estimates for items where such agreements prevail include:

- (i) average weekly household expenditure incurred on *outright cash purchases*;
- (ii) average weekly equivalent value per household of

*down payments* made on *new* credit purchase agreements during the three months preceding the interview;

- (iii) average weekly instalment payments per house-hold on *existing* credit purchase agreements (which are separately distinguished for major product categories).

Price indicators based on current cash prices are appropriate for cash purchases and down payments; a special price indicator is required for the credit purchase instalment payments using an extension of the methodology employed for mortgage interest.

For credit purchase instalment payments separate price indicators are required for:

- (a) interest payments;
- (b) repayment of advances.

The price indicator used for interest payments is compiled exactly as in the case of mortgage interest using the standard life span of such agreements (2 or 3 years) and CPI price indicators for the relevant products. In a credit purchase agreement the interest rate is fixed and applied to the full loan advance for the duration of the agreement. The price indicator for the *repayment of advances* is based on prices of the relevant products averaged over the fixed life span of credit purchase agreements for the products in question.

Credit purchase payments only arise to a sizeable extent in the case of *domestic appliances, acoustic appliances and motor cars*. They are distinguished for these three product categories in the CPI. The corresponding credit purchase repayments in the case of other items are combined with the expenditure weights relating to cash purchases and down payments for which price indicators based on cash prices are used in the normal manner.

### Calculation of the CPI

The index expresses the *current* cost of a *fixed* market basket of consumer goods and services as a percentage of the cost of the *same* identical basket at the base period mid-November 1996.

In technical terms the CPI is a fixed weight Laspeyres type, namely:

$$\left( \frac{\sum Q_o P_c}{\sum Q_o P_o} \right) \times 100$$

where:



$Q_o$  and  $P_o$  are the quantity (fixed) and average price respectively, of an index variety in the base (o) month;

$P_c$  is the average price of the same index variety in the current (c) month;

$\sum$  represents summation over all index varieties.

A modified version of this formula is used for calculation purposes, namely:

$$\frac{\left( \sum (Q_o P_c - 1) \frac{P_c}{P_c - 1} \right)}{\sum Q_o P_o} \times 100$$

i.e. the current cost of the fixed quantity of each index variety is calculated by updating the previous month's cost by the estimated monthly change in its average price.

Over 45,000 individual price quotations are collected, scrutinised and collated each month. Simple arithmetic average prices are first calculated within town size strata for both the current and preceding period for matched sets of prices (i.e. identical varieties priced in the same shop in both periods). These strata average prices are then combined into national averages using retail sales strata weights derived from the 1988 Census of Services. In the case of Price Booklet 2, department stores are segregated as a separated stratum so that their prices are incorporated in the national average prices with appropriate weighting. The ratio of these directly comparable national average prices for two successive months gives the estimated percentage change in price levels. These ratios are used to update the previous month's cost of the fixed quantity of each index variety to give the current month's cost of the constant basket. Indexes of price change can then be directly derived for all items or any combination of them by dividing their total current cost by their corresponding cost in the base period.

### Published Results

The updated index presently being introduced with base mid-November 1996 as 100 will, in future, be deemed the *official* Consumer Price Index. The separate indices calculated for the ten commodity groups distinguished in the former series will be continued, namely:

#### Food

#### Alcoholic drink

#### Tobacco

#### Clothing and footwear

#### Fuel and light

#### Housing

#### Durable household goods

#### Other goods

#### Transport

#### Services and Related expenditure

Additional indices are also published for *energy products*, *HICP*, *CPI less mortgage interest repayments* and *CPI less Housing*. *Energy products* covers fuel, light, petrol, motor diesel, motor gas (LPG) and motor oil. *CPI less Housing* covers CPI less rent, local authority charges, mortgage interest repayments, house insurance, repairs and decorations. For continuity purposes, each of these series will also be published to the former base mid-November 1989 as 100. Indices for any combination of items to any reference base are available on request.

The national average prices compiled for most of the individual varieties covered by the index are not meaningful representative average prices and cannot be used for such purposes. As explained earlier, individual Price Collectors are free initially to price particular popular products of their choice conforming to relatively broad variety specifications. Consequently, there is a wide variation in the qualities, brands, etc. for which prices are quoted under most variety headings. Meaningful national average prices can, therefore, be published only for those limited set of varieties in Table 2 where the exact identical product quantity is priced in all areas. The national average prices for the current and preceding months published each month are based on matched sets of price quotations and so give the percentage change actually used in the index compilation. For this reason the average prices for the same months published in successive periods can differ marginally.

**Table 2: Products for which comparable National Average Prices are published for successive months**

Commodity	Unit	Commodity	Unit
<i>Beef:</i>		<i>Butter</i>	1 lb
Round steak	1 kg		
Sirloin steak	1 kg	Margarine (packet)	½ lb
Rib steak	1 kg		
Leg beef		<i>Eggs:</i>	
(boneless)	1 kg	Large (grade 2)	doz.
Brisket pot roast		Standard (grade 3)	doz.
(boneless)	1 kg		
		<i>Bread:</i>	
<i>Mutton:</i>		White, sliced (large)	800g
Whole leg	1 kg	White, sliced (small)	400g
Loin chops	1 kg	Brown, sliced (large)	800g
Gigot chops	1 kg		
Neck	1 kg	<i>Flour:</i>	
Liver	1 kg	White, plain	2 kg
		White, self-raising	2 kg
<i>Pork:</i>		Brown, wholemeal	2 kg
Whole leg	1 kg		
Loin chops	1 kg	Sugar, white granulated	1 kg
Shoulder roast			
(boneless)	1 kg	<i>Preserves:</i>	
Steak	1 kg	Jam	1 lb
		Marmalade	1 lb
<i>Bacon:</i>		Honey	1 lb
Best back rashers	1 kg		
Streaky rashers	1 kg	<i>Drink taken home:</i>	
Ham, fillet	1 kg	Stout, 6 pack	6x250 ml
		Larger, 4 pack	4x330 ml
<i>Other Meat:</i>			
Cooked ham	1 kg	Ale, 6 pack	6x250 ml

Sausages, pork	1 kg	Cider, can	500 ml
Black pudding	1 kg	Whiskey	bottle
<i>Fresh Fish:</i>		Brandy	bottle
Fillets of Whiting	1 kg	Vodka	bottle
Cod cutlets	1 kg	Sherry	bottle
Fillets of Plaice	1 kg	<i>Drinks out:</i>	
<i>Smoked Fish:</i>		Stout, draught	1 pint
Smoked Kippers	1 kg	Lager, draught	½ pint
		Lager, draught	1 pint
<i>Fresh vegetables:</i>		Ale, draught	½ pint
Potatoes	5 lbs	Ale, draught	1 pint
Potatoes	10 kg	Cider	bottle
Tomatoes	1 kg	Lager, bottle	330 ml
Onions	1 kg	<i>Cigarettes:</i>	
Broccoli	1 kg	Plain, standard size	20
Carrots	1 kg	Filtered, standard size	20
Mushrooms	1 kg	<i>Motor Fuel:</i>	
<i>Milk:</i>		Petrol, leaded	1 litre
Fresh, pasteurised	1 litre	Petrol, unleaded	1 litre
		LPG for cars	1 litre
<i>Cheese:</i>		Autodiesel	1 litre
Irish cheddar	1 kg		

The Constant-Tax Price Index, calculated to the former mid-November 1989 base, is also being continued. This is a *separate series* which excluded from the former CPI series price movements due to indirect tax changes since its mid-November 1989 base. It is calculated simply by adding to the final mid-November 1996 index number (115.1) of the former Constant-Tax Price Index the points increase since that date in the present Constant-Tax Price Index (mid-November 1996 as 100) rescaled to the mid-November 1989 basis (by multiplying by 1.180 which is the former CPI at mid-November 1996 divided by 100).

## Appendices

1. CPI item headings with corresponding percentage expenditure mid-November 1996 base weights and constituent varieties priced.
2. CPI postal and telephone price inquiries.

## Constant-Tax Price Index

The Constant-Tax Price Index, which is derived from the CPI, has also been rebased to mid-November 1996 as 100. This index excludes from the CPI any price movements due to changes since the base period in indirect taxation (i.e. VAT, fiscal duty, motor tax and registration). Even where an existing advalorem tax rate (e.g. VAT) remains fixed, a change in the pre-tax of an item involves a proportionate change in the tax included in the final retail price. The effect of such implicit tax changes is also excluded.

The rebased Constant-Tax Price Index, therefore, measures the percentage change since mid-November 1996 in the cost of the fixed CPI market basket excluding any increases in the indirect tax content during the intervening period.

Protective customs duties and licences are not treated as indirect tax in this context and no estimation is attempted for the effect on retail prices of changes in the indirect taxes borne directly by the business sector.

This index can be used in conjunction with the Consumer Price Index to determine how much of the overall price change in any period is due to indirect taxation (including ad-valorem effects) and how much is due to all other factors. For this purpose, absolute changes (i.e. index points) in both series expressed to the same base must be compared. Thus, for the mid-November 1996 to mid-January 1997 period, of the total change in the CPI of -0.5 index points (from 100.0 to 99.5) non-tax factors accounted for -0.4 index points (i.e. the change from 100.00 to 99.6 in the Constant Tax Price Index).



## Appendix 1

**CPI Item Headings, November 1996 Percentage Expenditure Weights  
and Constituent Varieties Priced**

Item Headings	November 1996 % Expenditure Weights	Varieties Priced	Item Headings	November 1996 % Expenditure Weights	Varieties Priced
<b>FOOD</b>					
Beef	1.0124	(1) Round steak (2) Sirloin steak (3) Rib steak (4) Leg of beef (boneless) (5) Brisket pot roast (6) Minced beef	Dried vegetables	0.0124	(1) Dried peas (2) Dried potatoes
Mutton/Lamb	0.4869	(1) Whole leg (2) Loin chops (3) Gigot chops (4) Neck (5) Liver	Tinned vegetables	0.1986	(1) Peas (2) Kidney beans (3) Tomatoes (4) Baked beans
Pork	0.3829	(1) Whole leg (2) Loin chop (3) Shoulder roast (4) Steak	Frozen vegetables	0.2163	(1) Peas (2) Sweet corn (3) French beans (4) Chips
Bacon	0.8557	(1) Best back rashers (2) Streaky rashers (3) Ham fillet (4) Whole shoulder of ham	Bread	1.2377	(1) White sliced, large (800g) (2) Brown sliced, large (800g) (3) White sliced, small (400g) (4) Brown/wholemeal (400g) (5) French baguette
Poultry	0.9482	(1) Chicken, uncooked (2) Chicken, breast fillet (3) Chicken, cooked (4) Chicken, prepared fillet	Flour	0.0868	(1) White, plain (2) White, self-raising (3) Brown, wholemeal
Cooked meat	0.5328	(1) Cooked ham (2) Other cooked meat	Biscuits	0.5189	(1) Cream crackers (2) Plain biscuits (3) Sweet biscuits (4) Crisp bread
Sausages	0.2882	Pork sausages	Cakes	0.4911	(1) Fruit cake (2) Swiss roll (3) Doughnut
Other meat	0.3075	(1) Black pudding (2) Tinned meat (3) Beef burgers	Pasteurised milk	1.7399	(1) 1 litre (2) 1 litre, low fat
Fresh fish	0.1926	(1) Fillet of whiting (2) Cod cutlets (3) Salmon steak (4) Fillet of plaice	Other milk products	0.3647	(1) Condensed milk (2) Fresh cream (3) Baby milk compound (4) Yoghurt
Frozen fish	0.1509	(1) Fish fingers (2) Fish fillets	Cheese	0.3601	(1) Processed (2) Irish cheddar (3) Foreign cheeses
Smoked fish	0.0291	(1) Smoked fillets (2) Smoked salmon (3) Smoked kippers	Eggs	0.2354	(1) Large (size 2) (2) Standard (size 3)
Tinned fish	0.0577	(1) Salmon (2) Tuna	Butter	0.2705	(1) Butter (2) Butter, spreadable
Potatoes	0.6146	(1) Potatoes, 5 lbs (2) Potatoes, 10 kg	Margarine	0.3033	(1) Margarine, hard (2) Margarine, soft
Tomatoes	0.0679	Tomatoes	Other fats and oils	0.0869	(1) Cooking fat (2) Cooking oil
Other fresh vegetables	0.5004	(1) Onions (2) Cabbage (3) Broccoli (4) Cauliflower (5) Carrots (6) Mushrooms (7) Peppers (8) Lettuce			

## Appendix 1 – Continued

Item Headings	November 1996 % Expenditure Weights	Varieties Priced	Item Headings	November 1996 % Expenditure Weights	Varieties Priced
<b>Food – continued</b>					
Fresh fruit	0.7009	(1) Apples, cooking (2) Apples, eating (3) Oranges (4) Grapes (5) Bananas (6) Pears (7) Kiwi	Baby food	0.0393	(1) Tin/jar (2) Biscuit
Tinned fruit	0.0538	(1) Pears (2) Peaches	Miscellaneous items	0.9014	(1) Frozen meals (2) Pizza (3) Salt (4) Black pepper (5) Mustard (6) Vinegar (7) Potato crisps (8) Potato crisps, premium (9) Fruit juice (pure)
Dried fruit and nuts	0.0722	(1) Raisins, seedless (2) Sultanas (3) Nuts	Soft drink	1.1075	(1) Can (2) Large bottle (3) Bottled water (4) Concentrated squash (5) Mineral in lounge bar
Tea	0.2999	(1) Loose (2) Bags	Meals out	4.2776	(1) Chips, small single (2) Lunch in cafe/ restaurant (3) Dinner in bistro/ restaurant (4) Fast food meal (5) Take-away meal (6) Canteens (7) Rail dining car (8) School milk
Coffee	0.1358	(1) Instant (2) Filter	<b>Total food</b>	<b>22.8497</b>	<b>165 varieties priced</b>
Cocoa	0.0212	Cocoa	<b>ALCOHOLIC DRINK</b>		
Sugar	0.2075	(1) White granulated (2) Artificial sweeteners	Beer	8.6190	(1) Stout – take home (6 pack) (2) Lager – take home (4 pack) (3) Lager – take home (tray) (4) Ale – take home (6 pack) (5) Stout – draught bar (1 pint) (6) Lager – draught lounge (glass) (7) Lager – draught lounge (1 pint) (8) Lager – bottled bar (330 ml) (9) Ale – draught bar (glass) (10) Ale – draught bar (1 pint)
Breakfast cereals	0.4263	(1) Cornflakes (2) Wheat – based breakfast cereals (3) Muesli	Spirits	2.7137	(1) Whiskey – take home (bottle) (2) Brandy – take home (bottle) (3) Vodka – take home (bottle) (4) Alco-pop – bar (bottle) (5) Whiskey – bar (glass) (6) Gin and tonic – lounge (7) Vodka and white – lounge
Oatmeal	0.0230	Oatmeal			
Other cereals	0.1600	(1) Noodles (2) Rice (3) Spaghetti (4) Pasta			
Sauces and meat extract	0.3107	(1) Mayonnaise (2) Soy sauce (3) Sauce (4) Meal sauce (5) Ready mix sauces (6) Meat extract			
Soups	0.1468	(1) Tinned (2) Dried			
Preserves	0.1320	(1) Jam (2) Honey (3) Marmalade			
Sweets and chocolate	0.9008	(1) Box of chocolates (2) Sweets (3) Chocolate bar (4) Multi pack sweets			
Custard	0.0101	Custard powder			
Desserts and Ice creams	0.3728	(1) Prepared desserts (2) Ice cream (3) Ice pop (4) Ice cream cakes (5) Ice cream bars			



## Appendix 1 – Continued

Item Headings	November 1996 % Expenditure Weights	Varieties Priced
Wine	1.2971	(1) Cider – take home (can) (2) Sherry – take home (bottle) (3) Table wine – take home (bottle) (4) Cider – bar (bottle) (5) Wine – bar (bottle)
<b>Total alcoholic drink</b>	<b>12.6298</b>	<b>22 varieties priced</b>
<b>TOBACCO</b>		
Cigarettes	4.5944	(1) Unfiltered (2) Filtered
Cigars	0.0992	Cigars
Tobacco	0.1305	Flake
<b>Total tobacco</b>	<b>4.8242</b>	<b>4 varieties priced</b>
<b>CLOTHING AND FOOTWEAR</b>		
Men's outerwear	0.0482	Casual overjacket
Men's waterproofs	0.0251	Raincoat
Men's suits	0.1769	(1) 2-piece, wool (2) 2-piece, mixture
Other men's outerwear	0.8703	(1) Sports jacket (2) Jeans, cord/denim (3) Slacks (4) Pullover (5) Tracksuit (6) Sweat/rugby type shirt
Men's shirts	0.2778	(1) Shirt, cotton/polyester (2) T-shirt
Other men's underwear	0.0520	(1) Underpants, cotton (2) Vest (3) Pyjamas
Women's outerwear	0.1069	Casual over jacket
Women's waterproofs	0.0119	(1) Raincoat
Women's costumes/suits	0.4264	(1) 2-piece suit (2) Blazer/jacket
Skirts/Dresses/Slacks	0.8050	(1) Dress (2) Jeans (3) Slacks (4) Skirt
Other women's outerwear	0.6252	(1) Blouse (2) Cardigan (3) Jumper
Panties	0.0311	Panties

Item Headings	November 1996 % Expenditure Weights	Varieties Priced
Slips	0.0188	Slip
Other women's underwear	0.0956	(1) Girdle/pantigirdle (2) Brassiere (3) Nightdress
Boys' outerwear	0.2600	(1) Casual jacket (2) Tracksuit (3) Jeans (4) Jumper
Girls' outerwear	0.3428	(1) Casual jacket (2) Skirt, lined (3) Dress (4) Blouse (5) T-Shirt (6) Sweat-shirt (7) School uniform
Boys' underwear	0.0735	(1) Shirt (2) T-shirt (3) Vest (4) Pyjamas
Girls' underwear	0.0056	Vest
Hose	0.2825	(1) Men's socks (2) Women's tights (3) Boys' socks (4) Girls' socks
Other clothing	0.1462	(1) Neck tie (2) Baby's suit
Material/Haberdashery	0.0810	(1) Dress material, wool (2) Dress material, cotton (3) Thread (4) Zip
Men's footwear	0.5050	(1) All leather (2) Synthetic soles (3) Boots, casual/hiking (4) Wellington boots (5) Runners
Women's footwear	0.5359	(1) Low heel walking (2) Classic court (3) Fashion (4) Boots, casual/hiking (5) Slippers
Children's footwear	0.3275	(1) Boy's (2) Girl's (3) Children's wellington boots (4) Children's running shoes
<b>Total clothing and footwear</b>	<b>6.1311</b>	<b>71 varieties priced</b>

## Appendix 1 – Continued

Item Headings	November 1996 % Expenditure Weights	Varieties Priced
<b>FUEL AND LIGHT</b>		
Firelighters	0.0761	Firelighters
Coal and anthracite	0.8595	(1) Coal (including smokeless) take away bag (2) Coal (including smokeless) bulk supply (3) Anthracite
Turf and briquettes	0.3661	(1) Peat briquettes (2) Turf
Bottled gas	0.2881	Bottled gas
Piped gas	0.4396	Piped gas
Electricity	2.0252	Electricity
Fuel oil	0.8491	Central heating oil
<b>Total fuel and light</b>	<b>4.9038</b>	<b>10 varieties priced</b>
<b>HOUSING</b>		
Rents	1.7518	(1) Local Authority (2) Privately owned
Local authority charges	0.2952	Water
Mortgage interest	3.6315	(1) Local Authority (2) Building Society/Bank
House insurance	0.7311	(1) Contents (2) Dwellings
Repairs and decorations	1.6288	(1) Paint, gloss (2) Paint, emulsion (3) White spirit (4) Paint brush (5) Gravel (6) Sand (7) Cement (8) Concrete blocks, solid (9) Concrete blocks, hollow (10) Paving slabs (11) Wall cappings (12) Timber (13) Chipboard (14) Hardboard (15) Plasterboard (16) Glass
<b>Total housing</b>	<b>8.0385</b>	<b>23 varieties priced</b>

Item Headings	November 1996 % Expenditure Weights	Varieties Priced
<b>HOUSEHOLD DURABLES</b>		
Furniture	0.6051	(1) 3 piece suite (2) Dining table (3) Dining chair (4) Kitchen table (5) Kitchen chair (6) Chest of drawers (7) Divan bed (8) Drop side cot (9) Kitchen units
Acoustic appliances	0.3384	(1) Clock radio (2) Radio CD cassette player (3) CD Player (4) Midi system (5) Walkman/Discman (6) TV, portable, colour (7) TV, colour (8) Video recorder/player (9) Audio/acoustic appliances on credit
Electrical and gas appliances	0.7858	(1) Vacuum cleaner (2) Electric cooker (3) Gas cooker (4) Fridge freezer (5) Deep freeze (6) Dish washer (7) Washing machine (8) Tumble dryer (9) Heater, gas bottle (10) Fan heater (11) Iron (12) Kettle (13) Razor (14) Toaster (15) Hair Dryer (16) Microwave oven (17) Deep-fat fryer (18) Food mixer (19) Food processor (20) Sewing machines (21) Domestic appliances on credit purchase (22) ESB appliance prices
Personal computers	0.0470	(1) Personal computer (2) Printer (3) Diskette
Electrical repairs and parts	0.2262	(1) Battery (2) Light bulb (3) 3 pin plug (4) Electrical repairs (5) TV repairs
Other appliances	0.1202	(1) Lawn mower, powered (2) Power drill



## Appendix 1 – Continued

Item Headings	November 1996 % Expenditure Weights	Varieties Priced	Item Headings	November 1996 % Expenditure Weights	Varieties Priced
Ironmongery/Hardware	0.3642	(1) Garden spade (2) Chisel (3) Hammer (4) Vice grip (5) Screw driver (6) Plastic flower pot (7) Dust bin (8) Rotary clothes line	Cleaning material	0.2406	(1) Washing – up liquid (2) Fabric conditioner (3) Household scourer (4) Domestic disinfectant
Floor coverings	0.2748	(1) Vinyl covering (2) Floor tiles (3) Carpet, wool/mix (4) Carpet, synthetic	Other domestic non – durables	0.5237	(1) Plastic rubbish bags (2) Shoe polish (3) Toilet paper (4) Matches (5) Kitchen paper roll (6) Tin foil (7) Cling film (8) Household lubricating oil (9) Household adhesive
Soft furnishings	0.4140	(1) Curtain material (2) Continental quilt (3) Continental quilt cover (4) Pillow (5) Pillow case (6) Sheet (7) Blanket, wool (8) Blanket, synthetic (9) Bath towel (10) Tea towel	Personal non – durables	0.2295	(1) Toilet soap (2) Shower gel (3) Toothpaste (4) Dental floss (5) Mouth wash
Crockery and glassware	0.1292	(1) Coffee mug (2) Combination service set (3) Glass tumbler (4) Wine glass (5) Casserole dish	Hair applications	0.2156	(1) Shampoo (2) Hair conditioner (3) Hair gel
Cutlery	0.0139	(1) Cutlery set (2) Carving knife	Cosmetics	0.4999	(1) Shaving foam/gel (2) Deodorant (3) Sun tan oil/cream (4) Baby powder (5) Cleansing cream (6) Lipstick (7) Perfume
Kitchen utensils	0.1074	(1) Spatula (2) Corkscrew or bottle – opener (3) Saucepan (4) Frying pan (5) Wok (6) Pressure cooker	Toilet accessories	0.4093	(1) Tampons (2) Sanitary towels/pads (3) Disposable nappies (4) Paper tissues (5) Cotton wool (6) Toothbrush (7) Razor blades (8) Condoms
Household brushes	0.0361	(1) Sweeping brush (2) Shoe polish brush	Personal goods	0.4623	(1) Cigarette lighter (2) Suitcase (3) Ladies handbag (4) Umbrella (5) Wallet (6) Wrist watch (7) Pocket calculator (8) Sunglasses (9) Jewellery
Other household durables	0.1163	(1) Plastic basin (2) Ironing board	Sport recreation goods	0.1558	(1) Golf ball (2) Golf clubs, set (3) Tennis ball (4) Tennis racket (5) Football, leather (6) Football strip
<b>Total household durables</b>	<b>3.5786</b>	<b>89 varieties priced</b>			
<b>OTHER GOODS</b>					
Detergents	0.4000	(1) Powder, automatic machine (2) Powder, dishwasher			

## Appendix 1 – Continued

Item Headings	November 1996 % Expenditure Weights	Varieties Priced	Item Headings	November 1996 % Expenditure Weights	Varieties Priced
Musical instruments	0.1519	(1) Guitar (2) Violin (3) Drums (4) Piano/keyboard (5) Flute	<b>TRANSPORT</b>		
Toys	0.3779	(1) Girl's doll (2) Computer game (3) Model car (4) Lego set (5) Group game (6) Fisher price toy	Motor cycles	0.0168	(1–30) Motor cycles – new models
Paper goods	0.2764	(1) School copybook (2) Envelopes (3) Refill pad	Motor cars	3.9458	(1–30) Motor cars – new models  Motor cars – second hand
Stationery supplies	0.0837	(1) Sellotape (2) Lead pencil (3) Ballpoint pen (4) Felt markers	Other vehicles	0.1683	(1–6) Motor cars – credit purchase contracts
Comics	0.1148	(1) Infant's book (2–6) 5 Comics	Motor Tax	0.8345	(1) Motor cycles (2) Motor cars
Magazines and journals	0.2541	(1–9) 9 Irish publications (10–14) 5 Foreign publications	Motor insurance	2.0077	Motor cycle – 4 hypothetical risks for: (1) 3rd party (2) comprehensive
Newspapers	1.1069	(1–7) 7 Daily national (8–16) 9 Daily foreign (17–41) 25 Provincial (42–44) 3 Sunday – national (45–52) 8 Sunday – foreign	Motor fuel	4.1761	Motor cars – 26 hypothetical risk for: (1) 3rd party (2) 3rd party, fire and theft (3) comprehensive
Books	0.4497	(1) Paperback novels (2) Primary school (3) Second level (4) Third level (5) Encyclopaedias	Motor oil	0.0460	(1) Petrol – leaded (2) Petrol – unleaded (3) Liquid Petroleum Gas (4) Diesel
CDs, tapes and videos	0.2537	(1) Cassette – pre recorded (2) Cassette – blank (C90) (3) Video – blank (4) Video – pre recorded (5) CD single (6) CD album (7) CD album (low price)	Spare parts	0.5010	Oil  Tyres – (1) Motor car tyres – radial (new) (2) Motor car tyres – radial (remould) (3) Bicycle tyres
Photographic goods and services	0.1752	Cameras – (1) Camera, SLR 35mm (2) Camera, compact  Film – Film, colour 35mm  Development – (1) Passport photographs (2) Express, 1 hour (3) Colour, 35mm	Repairs and maintenance	0.6495	Parts – (1) Batteries (2) Spark plugs (3) Dynamo (4) Fan belt (5) Set of points (6) Oil filter (7) Air filter (8) Alternator
<b>Total Other Goods</b>	<b>6.3810</b>	<b>161 varieties priced</b>	Other vehicle costs	0.0988	(1) Car wash (2) Hot wash and wax (3) Standard maintenance (4) Puncture repair  (1) Parking fees (2) Parking fine (3) Motoring organisation subscriptions



## Appendix 1 – Continued

Item Headings	November 1996 % Expenditure Weights	Varieties Priced	Item Headings	November 1996 % Expenditure Weights	Varieties Priced
Bus fares	0.6097	(1) Dublin city services (2) Cork city services (3) Limerick city services (4) Galway city services (5) Waterford city services (6–25) Provincial services (20 routes) (26) School bus fares			3rd level fees – (1) Universities (2) Other 3rd level institutions  Living away from home – (1) University residences (2) Boarding houses (3) Flats and apartments
Rail fares	0.1790	(1–11) 11 Adult ticket types priced (12–18) 7 Child ticket types priced (19–20) 2 Adult ticket types priced (21) 1 Adult ticket type priced			Other education – (1) Language courses, cassettes (2) Language course, classes (3) Driving lessons, day (4) Driving lessons, night (5) Music lessons (6) Commercial courses (7) Extra mural courses (8) Examination fees (9) Application fees for 3rd level institutions
Combined travel	0.1608	Combined bus/rail ticket			
Other travel	0.5461	(1) Taxi fares (2–6) Boat fares (5 routes) (7–15) Air fares (9 routes) (16) Toll charges (17) Hire car	Medical fees	0.9729	Doctors fees – (1) Surgery consultation (2) House calls – weekday (day) (3) House calls – weekday (night) (4) House calls – weekend (5) Specialist fees  Dentists fees – (1) Extraction (2) Scaling and polishing (3) Filling  Opticians fees – Eye test
<b>Total transport</b>	<b>13.9402</b>	<b>164 Varieties priced</b>			
<b>SERVICES AND RELATED EXPENDITURE</b>					
Cinema	0.1774	Cinema			
Dancing	0.4527	Club/Disco			
Other entertainment	0.9787	Sports admittance – (1) GAA matches (2) Soccer matches (3) Rugby matches (4) Dog racing (5) Horse racing  Other admittance – (1) Zoos and wildlife parks (2) Historic places (3) Ballad sessions (4) Theatre and concerts  Sports participation – (1) Golf, green fees (2) Swimming (3) Squash	Medicines and drugs	0.5922	(1) Pain reliever (2) Antacid (3) Petroleum jelly (4) First aid disinfectant (5) Adhesive dressing (6) Cough mixture (7–146) Representative prescribed drugs classified by ATC
Education and training	1.6085	Primary level fees – (1) Play/nursery schools (2) Private primary schools  2nd level fees – (1) Vocational schools (2) Secondary day schools (3) Secondary boarding schools	Hospital charges	0.1883	Maintenance – (1) Public ward (2) Semi-private room (3) Private room  Other Services – (1) Operating theatre fee (2) Pathological test (blood) (3) Pathological test (urine) (4) X-ray (5) Blood transfusion (6) Other hospital charges

## Appendix 1 – Continued

Item Headings	November 1996 % Expenditure Weights	Varieties Priced	Item Headings	November 1996 % Expenditure Weights	Varieties Priced
Other medical expenses	1.3443	(1) Spectacles (2) Dentures (3) Medical/health insurance	Telephone	1.8388	Private – (1) Local (2) Trunk – A & B rates (3) Cross channel (4) International (5) Rental
Therapeutic equipment	0.0573	(1) Adjustable beds (2) Reclining chairs (3) Car seat supports (4) Lumbar rolls (5) Hearing aids (6) Artificial limbs			Public – (1) Local (2) Trunk
Hairdressing	1.0846	Men's – (1) Haircut (2) Shampoo, cut and blow dry  Women's – (1) Shampoo and set (2) Shampoo, cut and blow dry (3) Perm (4) Hair colour in salon			Mobile – (1) Telephone cost and first connection fee (2) Telephone cost and additional connection fees
Shoe repairs	0.0345	(1) Men's shoe (2) Women's shoe	Society subscriptions	0.5223	(1) Golf clubs (2) Rugby clubs (3) Squash clubs (4) Health clubs/gyms
Laundry and dry-cleaning	0.1334	Launderette, basic  Dry-cleaning – (1) Drycleaning, suit (2) Drycleaning, jacket  Laundry – (1) Blanket (2) Pillowcase (3) Sheet (4) Tablecloth (5) Towel (6) Shirt (7) Trench coat (8) Denim jeans (9) Handkerchief	Union subscriptions	0.2626	(1) Trade union (2) Civil Service Associations
Other services	1.0860	(1) Cleaning watch (2) Ear piercing (3) Alteration to trousers (4) Dress hire (5) Chimney sweep (6) Repair and maintenance services (7) Newspaper advertisement (8) Furniture removal (9) Library charges (10) Video film hire (11) Domestic services, including day care	TV rental	0.4392	TV rental – (1) Coloured sets – new (2) Coloured sets – 2 years old  Video rental – Video recorder – new  Communal aerial/cable – subscription charge
Postage	0.1352	(1) Post cards (2) Letters, local (3) Letters, overseas (4) Parcels, local (5) Parcels, overseas	Licences	0.3871	(1) TV licences (2) Driving licences (3) Other licenses
			Accommodation charges	0.3180	(1) Hostels (2) Guest houses (3) Hotels
			Package holidays	2.9161	Package holidays and tours
			Other expenditure	1.1929	(1) Pet food (2) Moss peat (3) Garden fertiliser (4) Driving test fee (5) Flowers (6) Passport fee (7) Birth certificate fee (8) Bank charges
			<b>Total services &amp; related expenditure</b>	<b>16.7232</b>	<b>276 varieties priced</b>
			<b>Total all items</b>	<b>100.0000</b>	<b>985 varieties priced</b>



## Appendix 2

### Postal and Telephone Price Inquiries

There are 102 postal or telephone inquiries priced in the current series. Not all inquiries are priced on a monthly basis, but are priced on a quarterly or annual basis e.g. TV licences are priced on a quarterly basis while school uniforms are only priced once a year.

*Meals out:* Prices for canteen meals and meals in rail dining cars are surveyed by post to supplement the prices for hotel, restaurant and bistro dinners and lunches surveyed locally by Price Collectors.

*School uniforms:* Prices for school uniforms are obtained every August from a sample of suppliers.

*Laundry:* The cost of cleaning a selection of clothing and soft furnishings are collected each quarter.

*Solid fuel (bulk deliveries):* Details of prices for bulk deliveries of coal, turf, anthracite, smokeless fuels, etc. are obtained every quarter from a representative sample of the principal fuel merchants to supplement the prices collected locally.

*Domestic gas:* The principal gas companies are contacted by post each quarter for details of any changes in their domestic tariffs.

*Electricity:* The Electricity Supply Board provides an estimate of the overall percentage change in their domestic electricity rates whenever its tariffs change.

*Domestic fuel oil:* The principal oil companies are contacted by post each month for details of any changes in their consumer prices for central heating fuel oils.

*Rents:* Changes in the average level of the rents paid by Local Authority tenants are incorporated in the index each quarter. Calculations are based on details of the total number of such dwellings and the aggregate rents paid obtained directly from each local administrative area. Changes in the level of rents charged in respect of privately owned dwellings are also taken into account each quarter. A special direct rent inquiry is undertaken each quarter by CSO staff in the Dublin area and by the part-time Private Price Collectors in the small provincial towns. Two long standing postal inquiries addressed to small panels of landlords and tenants, respectively, are also continued.

*Local Authority service charges:* Changes in the annual rates of water and other service charges are obtained from Local Authorities throughout the country each August.

*Mortgage interest repayments:* The mortgage interest rates being charged by Building Society/Banks and Local Authorities are surveyed by post each month for the estimation of changes in the interest cost of house purchase mortgages (as described in the text). Capital repayments are not covered.

*House insurance:* Details of the standard insurance rates per £ value for private dwellings and contents are obtained from a sample of the principal insurance companies on a monthly basis. Changes in the insured value of dwellings are taken into account each month using the House Building Cost Index published by the Department of the Environment. The relevant component of the CPI is used to update the value of house contents for this purpose.

*House repair and decoration supplies:* The prices of a representative selection of materials for home repairs and decorations are obtained monthly by postal inquiry for a national sample of Builder's Providers.

*Built-in kitchen furniture:* Prices for a number of built-in kitchen furniture units are obtained from a sample of specialist suppliers each quarter.

*Credit purchase:* Details of the interest rates charged for credit purchase agreements relating to

- acoustic appliances
- household appliances
- motor cars

are obtained monthly or quarterly from a panel of finance companies.

*Electrical/TV repair charges:* Details of rates charged by the Electricity Supply Board and a selection of other firms are surveyed quarterly.

*Newspapers:* The prices of all the principal national, provincial and foreign newspapers, are obtained each month.

*Magazines and periodicals:* The prices of a comprehensive selection of Irish and foreign magazines and periodicals are obtained each month.

*Comics:* The prices of a representative selection of comics are surveyed each month.

*Text books:* The prices charged for a representative selection of primary, secondary and third level text books are obtained by post each August from a sample of booksellers.

*Computers and accessories:* A variety of personal computers, printers and diskettes are priced on a monthly basis.

*Motor vehicles:* Estimates of the monthly change in price levels are based on changes in the list prices of a comprehensive selection of new motor vehicles and of a number of new motor cycles; second hand prices are not surveyed.

*Motor insurance:* Details of the actual premium charged in respect of a representative selection of hypothetical motorists are obtained from leading Motor Insurance Companies each month.



## Appendix 2 – Continued

**Motor Tax:** Changes in motor tax rates for cars and motorcycles are obtained on an annual basis.

**Motor car tyres and parts:** The prices of a selection of motor tyres are obtained by post from a sample of specialists dealers. Prices of batteries, dynamos, fan-belts, spark plugs, points, air filters, oil filters and alternators are similarly got from a selection of motor accessory shops. These items are also surveyed in the postal inquiry addressed to garages for motor maintenance charges.

**Motor vehicle repair and maintenance:** A national sample of major garages is surveyed by post each month for details of the actual amounts charged for a standard service to specified motor vehicles. This inquiry also covers puncture repair, motor tyres and a range of motor parts.

**Other motoring expenses:** Details of parking fees, parking fines and subscriptions to motoring organisations are obtained quarterly from the relevant authorities.

**Transport:** When fares change Bus Éireann and Iarnród Éireann provide estimates of the overall percentage changes for city and provincial bus services and rail services. Particulars of the fares charged for a representative selection of air and sea journeys are obtained each month from the relevant companies. Taxi fares charged for a specific journey in Dublin and Cork are also covered quarterly. Details are also collected on the changes in the cost of school transport, toll charges and the hire of self-drive cars.

**Miscellaneous admission charges:** Admission charges for sports fixtures, ballad sessions, historic places, cabarets, theatres and concerts are surveyed by post and telephone. Cinema and dance/disco admission charges are surveyed locally by Price Collectors.

**Education:** Details of the fees and charges to students are obtained by postal inquiry each October from a representative selection of the fee-charging primary, secondary day and secondary boarding schools and from third level institutions. Particulars are also obtained of the fees charged in respect of vocational education courses not covered by the free post-primary education scheme. The inquiry also covers language courses, play/nursery schools, music lessons, driving lessons, secretarial courses and fees for examinations and applications for university courses.

**Student living costs away from home:** The rates charged for a fixed selection of student boarding houses, flats and halls of residences in Dublin, Cork and Galway are obtained quarterly.

**Doctors', dentists' and opticians' fees:** The fees charged by national samples of general practitioners, physicians, gynaecologists, ophthalmologists,

dentists and opticians are surveyed by post each quarter.

**Pharmaceutical products:** Actual prices charged by a sample of Chemist Shops throughout the country for a representative list of pharmaceutical products and condoms are obtained by post each quarter.

**Hospital charges:** The prices charged for maintenance and representative services (e.g. X-ray, laboratory tests, etc.) by a representative sample of different types of hospitals are surveyed directly each quarter by postal inquiry.

**Miscellaneous medical expenses:** The prices of spectacle lenses and dentures are also surveyed in the quarterly postal inquiries addressed to opticians and dentists, respectively. In addition a representative sample of therapeutic equipment is also priced every September.

**Health insurance:** Details of the premiums payable for a fixed cover are obtained quarterly from the Voluntary Health Insurance Board. This item is included in the CPI because the expenditure weight for hospital cost is net of health insurance refunds.

**Miscellaneous services, etc.:** Changes in the prices charged for dress-suit hire, newspaper advertisements, bank charges and fees for birth certificates and passports, chimney cleaning, removal services, tool hire and personal services such as library charges, video hire, driving test fee and passport photographs are surveyed in a variety of monthly and quarterly inquiries.

**Miscellaneous goods, etc.:** Changes in the prices of musical instruments, jewellery, flowers, sports and recreation goods are priced in a variety of monthly or quarterly surveys.

**Creche day care facilities:** Details of child minding costs are collected every September. This survey is distinct from nursery or montessori school costs which are surveyed under education.

**Postage and telephone:** Details are obtained directly from An Post and Telecom Éireann on the occasion of any changes in their tariffs. The cost of purchasing mobile telephones is also priced on a monthly basis.

**Regular subscriptions:** Details of subscription rates are obtained every quarter in respect of Trade Unions and Civil Service Associations, and annually in respect of representative samples of golf, rugby, squash clubs and health clubs, together with a number of recreational and academic societies.

**Television and cable rent:** Particulars of rental charges for televisions, video recorders/players and cable/satellite connections are surveyed quarterly.

**Licences:** Changes in the cost of driving, television, dog, fishing and gun licences are obtained from the relevant authorities when rates change.



**Appendix 2 – Continued**

*Hotels, Hostels and Guest houses:* Prices for staying overnight in hotels and guest houses are surveyed by a combination of postal and telephone inquiries each month to supplement prices collected locally. Hostel prices are also surveyed on a quarterly basis.

*Package holidays and tours:* This item covers the cost of foreign and domestic holidays paid for in Ireland. Unlike the former sub-index 'Expenditure Abroad' it does not cover the costs incurred by Irish tourists abroad i.e. personal expenditure on drink, food, accommodation etc. The monthly price indicator used reflects changes in the cost of packaged holidays offered in Ireland and abroad.