




Consumer Price Index

Introduction of Updated Series

Base: Mid-November 1989 as 100

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CONSUMER PRICE INDEX

Introduction of updated series with base Mid-November 1989 as 100

Index Updating and Rebasing

The Consumer Price Index (CPI) is designed to measure the average change in the level of the prices paid (inclusive of all indirect taxes) for consumer goods and services by all private households in the country. It is compiled by the *Central Statistics Office (CSO)* on a quarterly basis in respect of the middle Tuesday of the months of February, May, August and November each year. The index is issued through the *Government Information Services (GIS)* approximately five weeks after the date to which it relates. It is subsequently published in the monthly *Economic Series* and in the quarterly *Statistical Bulletin*.

This article describes the latest regular updating of the index. Commencing with mid-February 1990 the CPI is being calculated using updated weights derived from the results of the 1987 largescale national *Household Budget Survey*⁽¹⁾. 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.

The updated index is being published to base mid-November 1989 as 100. Indices calculated to the former mid-November 1982 base are also being published for continuity purposes. Linked indices calculated to the other former bases (i.e. July 1914, mid-August 1947 and 1953, mid-November 1968 and 1975) are also available on request.

The bulk of the price quotations on which the index is based are collected each quarter from a panel of retail and service outlets throughout the country. Other price quotations are collected directly by post. The CSO wishes to place on record its appreciation of the co-operation and assistance it receives from business concerns in this connection each quarter. The quotations relating to individual concerns are treated as strictly confidential and are not divulged by the CSO to any other Government Department or outside body.

Definition and Purpose of the CPI

The CPI measures in index form the quarterly changes in the cost of purchasing a constant representative "basket" of consumer goods and services (i.e. Laspeyres index formula). The fixed quantity of each item in this basket is proportional to the average amount purchased by all households in the country. Identical products are priced in the same shops on each occasion so that changes in the cost of this constant basket reflects only

price changes. The fixed quantities (i.e. weighting pattern) are retained for as long as they are considered representative of current household purchasing patterns. 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 the manner in which households change their pattern of expenditure (e.g. switch from expensive meat cuts to cheap 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 and, therefore, affect most household budgets, are not covered by the CPI. The CPI therefore, 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 one particular aspect of the cost of living which is measured by the CPI.

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 previously used in the compilation of the index since the foundation of the State in 1922. The main features of these five earlier index series are briefly described below:

(i) Index with base July 1914 as 100⁽²⁾

This was the first official index of consumer prices compiled for the State. It was introduced in respect of March 1922. The weighting basis of the index 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 of this index 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 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;

⁽¹⁾ *Household Budget Survey 1987, Volume 1—Detailed Results for All Households (December 1989).*

⁽²⁾ *Report on the Cost of Living in Ireland (June 1922);*

(ii) *Index with base mid-August 1947 as 100*⁽³⁾

This second series was titled the *Interim Cost of Living Index (Essential Items)*. This index series was calculated for each quarter from mid-August 1947 to mid-August 1953. The weighting basis of the index 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 largescale urban Household Budget Inquiry⁽⁴⁾ was conducted during 1951–52 to provide up-to-date index weights;

(iii) *Index with base mid-August 1953 as 100*⁽⁵⁾

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 longstanding 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 only;

(iv) *Index with base mid-November 1968 as 100*⁽⁶⁾

This index series was introduced for mid-February 1969 and was compiled each quarter up to mid-November 1975. The weighting basis of the series related to the expenditure pattern of *all urban households* as determined from the results of the 1965–66 Household Budget Inquiry⁽⁷⁾. 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*⁽⁸⁾

This index series was introduced for 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⁽⁹⁾. The number of vari-

eties priced was increased from 343 for the former series to 685, but no major change was made to the panel of local shops in which these items were priced;

(vi) *Index with base mid-November 1982 as 100*⁽¹⁰⁾

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 shops in which the prices were surveyed was also extensively overhauled. As with November 1968 updating this necessitated 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). For this purpose largescale Household Budget Surveys have also been completed every seven years (i.e. 1965–66, 1973, 1980 and 1987). On this basis the next CPI updating would be completed in November 1996 based on the results of a 1994 largescale Household Budget Survey.

Population Coverage

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

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. this also 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 embrace 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) ground rent;
- (iii) personal cash allowances⁽¹¹⁾;
- (iv) lottery and betting payments.

⁽³⁾ *Irish Trade Journal and Statistical Bulletin* (June 1948).

⁽⁴⁾ *Household Budget Inquiry 1951–52*.

⁽⁵⁾ *Irish Trade Journal and Statistical Bulletin* (December 1953).

⁽⁶⁾ *Irish Statistical Bulletin* (March 1969).

⁽⁷⁾ *Household Budget Inquiry 1965–66* (August 1969).

⁽⁸⁾ *Irish Statistical Bulletin* (March 1976).

⁽⁹⁾ *Household Budget Survey 1973*.

⁽¹⁰⁾ *Irish Statistical Bulletin* (March 1983).

⁽¹¹⁾ *The Household Budget Survey distinguishes both pocket money paid to children under fourteen years of age within the household and personal cash allowances to non-household members. The former was presumed to relate mainly to sweets, ice-cream and comics in the derivation of the index weights; the latter was excluded.*

Furthermore, since the CPI is based on the concept of household *expenditure* the following *non-purchased* consumption items are also excluded:

- (v) the value of own farm or garden produce consumed by households;
- (vi) social welfare and other benefits in kind;
- (vii) imputed rent of owner occupied dwellings.

Certain other items of expenditure are also outside the scope of the index even though they affect the living costs and budgets of many households, namely:

- (viii) 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;
- (ix) 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 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 best available estimates of the current average weekly expenditure on consumer goods and services by all households in the country. These estimates were derived almost entirely from the results of the largescale national Household Budget Survey which was conducted by the CSO during 1987 specifically for this purpose. The survey covered a national representative sample of 7,705 private households throughout the country. Fieldwork commenced in February 1987 and terminated in April 1988.

The sample 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. A detailed report on the survey was published in December 1989⁽¹⁾.

The index expenditure weights basis was derived from the results of the 1987 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 survey, was eliminated from the headings affected. This was necessary because the CPI by definition does not cover *non-purchase* household consumption;

- (iii) Estimates of the average household expenditure on alcoholic drink derived from the Survey were replaced by figures derived from personal expenditure estimates in the National Accounts. Expenditure on alcoholic drink was understated by more than 50 per cent in the survey. This is a common international phenomenon in surveys of this type. Accurate figures are, however, available from other sources for the total annual consumption of alcoholic drink in the country and, making due allowance for tourist expenditure, it was possible to derive a sufficiently reliable estimate of average weekly household expenditure for index weighting purposes;

- (iv) The survey expenditure estimates, which related to the calendar year 1987, were updated to mid-November 1989 using the percentage changes between 1987 and mid-November 1989 in the prices of the individual items covered by the former index series. Accurate information was not available on any quantitative changes in the detailed pattern of household consumption during this two year period; no adjustments were made for this;

- (v) The allocation of expenditure weights to the individual varieties priced is described in detail below.

The value of the resulting CPI market basket was £233.95 at mid-November 1989 price levels. It relates to an average household consisting of 3.505 persons.

Sampling Design of the CPI

The CPI is based on a pyramid of samples. As already described, the weighting 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 quarterly collection of prices. It would be impossible to price every brand or variety of every item available in all retail and service outlets in the country on all days each quarter. 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 quarter. As the index is intended to reflect price change only, the samples of identical varieties and shops are retained unchanged for as long as possible during the life span of the series. This insures 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 quarterly 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 an 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 (423 categories) and market information. Second, the expenditure corresponding to unpriced 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 sampling weight imputation approach 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 (e.g. compact discs, unleaded petrol, foreign beers) were also included to reflect recent market changes. These were surveyed for the first time in the November 1989 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. A number of different varieties are priced for most items; these are listed as well. The total number of different varieties priced is 807; this is 85 more than the number priced in the former series.

In the present series a total of 403 varieties are priced locally. The remainder either involve single enterprise (e.g. electricity, bus and rail services, post and telephone charges), relate to 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 special postal and telephone inquiries. These direct inquiries are summarised in Appendix 2.

Local Pricing Operation

The local pricing arrangements used for the former series has been continued without any major change. Some adjustments were made to the 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 the larger provincial centres pricing also continues to be completed by officials of the Department of Social Welfare attached to the local Employment Exchanges. Prices in the smaller towns are collected by a panel of approximately 44 part-time private Price Collectors on a fee basis. This latter arrangement was introduced in 1984; prior to this the pricing in these cases was completed by personnel attached to the local Employment Offices of the Department of Social Welfare.

As in former series the 403 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 (185 varieties) relates to food, drink, tobacco and household non-durable goods;

Booklet 2 (150 varieties) relates to clothing and household durable goods;

Booklet 3 (68 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 price 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. 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.

TABLE 1. GEOGRAPHICAL DISTRIBUTION OF PRICING BOOKLETS

Town Size (1986 population)	Towns		Number of Pricing Booklets		
	Total Number	CPI Sample	Type 1	Type 2	Type 3
Dublin and Dun Laoghaire	2	2	32	24	19
Cork, Limerick and Waterford	3	3	15	9	8
Other towns with 10,000 or more inhabitants	19	18	29	16	16
Towns with 5,000—10,000 inhabitants	33	23	23	23	20
Towns with 3,000—5,000 inhabitants	27	16	13	6	10
Towns with 1,500—3,000 inhabitants	43	7	6	1	5
Towns with under 1,500 inhabitants	492	13	13	—	6
TOTAL	619	82	131	79	84

Price collectors are required to price the grocery and household provision items in Booklet 1 as far as possible in the specified shop type. However, specialist items in this Booklet (e.g. meat, fish, fresh fruit and vegetables, alcoholic drink) are priced in the most popular outlets selling these products in the locality.

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 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 five different varieties is listed under the item category *toys*. One of these varieties is a *model car*. No further specifications are given and individual Price Collectors are free initially to select for regular pricing any of the different types of model cars available locally. The only restriction to their choice is that the particular model 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 product on each successive occasion. Because of the interval intervening between each such occasion and the possibility that different Price Collectors might be involved, the Price Booklets are specially designed so that the exact specification of each selected product is recorded to ensure that the identical set of articles 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 places 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 everywhere.

A further advantage of this approach is that it facilitates the handling of discontinuities which can occur in the quarterly sets of price quotations due to model 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 specifications of this new product to be inserted. The particular discontinuity is in this manner restricted to a single Price Booklet and the relevant price is excluded from the index calculations until two consecutive 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 quarterly price quotations are available for it.

A change in a shop surveyed is also treated as a discontinuity and the prices for the particular products affected

are not used in the index calculations until successive quarterly quotations are obtained from the same shop. The Price Booklets are designed so that the shop in which each particular product 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.

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

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 present CPI series are summarised in *Appendix 2*. All postal inquiries conducted for the former series were retained with suitable revisions and updating.

Correction for Seasonality in Some Items

The prices of some fresh food items such as eggs, vegetables, fruit, etc. fluctuate seasonally in varying degrees due to market forces of supply and demand. Traditionally, the price changes for three items (i.e. eggs, potatoes and tomatoes) have been corrected for seasonality in the CPI because, when account is taken of their weights, their seasonal pattern could have a discernible impact on the index. As this could make it unduly difficult to distinguish underlying price trends the seasonal price variations for these three items continue to be excluded from the index. This is done using the *X-II Variant of the US Bureau of the Census Method 11 Seasonal Adjustment Program*.

There are other index items whose prices tend to change regularly at the same time each year simply because they are levied annually at that time. Examples of these items are school and university fees, annual subscriptions to clubs and societies, etc. Items with a high duty content (drink and tobacco) are also affected in this fashion by Budget changes. Price changes for these particular products and for other items with insignificant individual seasonal contributions are reflected in the CPI without adjustment. For this reason seasonality is not fully excluded from the CPI.

Housing Costs

Being based on the concept of household expenditure 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 private 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 concept of household expenditure covered by 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 level of house prices when the mortgage was taken out and in most cases (ie. 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 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 quarter to quarter 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 quarter 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 quarterly change in interests costs reflects both the change in interest rates and the change in 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 mortgages where a standard repayment term of 20 years is taken);
- (ii) where interest rate is fixed and the mortgage debt is gradually paid off (i.e. Local Authority mortgages where a standard repayment term of 25 years is taken);
- (iii) where 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 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 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:

- (a) the index of current interest rates; and
- (b) 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 periods where the relative weights decline with age of mortgage reflecting the gradual repayment of mortgages over time (including premature terminations).

For mortgages where the interest rate is fixed at the time of origin and subsequently remains unchanged a somewhat similar averaging procedure is used, but in this case the change in the product of house price levels and the applicable interest rates in successive periods is averaged

In applying the indicators outlined above the house price levels were estimated by linking the following series together:

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

Credit Purchase Payments

Instalment payments on *hire purchase* and *credit sale* agreements were covered in the former series for the first time. 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 on *down payments* made on *new credit purchase* agreements during the three months preceding the interview;

- (iii) average weekly instalment payments per household 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.

In the case of credit purchase 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 applies 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 Index

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 1989⁽¹²⁾

Over 39,000 individual price quotations are collected, scrutinised and collated each quarter. National averages

⁽¹²⁾ In technical terms the index is of the Laspeyres type with fixed weights, namely:

$$\left(\frac{\sum Q_0 P_c}{\sum Q_0 P_0} \right) 100$$

where:

- Q_0 and P_0 are the quantity (fixed) and average price, respectively, of an index variety in the base (o) quarter;
- P_c is the average price of the same index variety in the current (c) quarter;
- \sum represents summation over all index varieties.

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

$$\left(\frac{\sum (Q_0 P_{c-1}) \frac{P_c}{P_{c-1}}}{\sum Q_0 P_0} \right) 100$$

i.e. the current cost of the fixed quantity of each index variety is calculated by updating the previous quarter's cost by the estimated quarterly change in average prices.

of the prices returned in respect of each sample variety are first calculated. These averages are compiled in two stages. Simple arithmetic average prices are first calculated within town size strata; these strata average prices are then combined into national averages using retail sales strata weights derived from the 1987 Census of Services. In the case of *Price Booklet 2 department stores* are segregated as a separate stratum so that their prices are incorporated in the national average with appropriate weighting. Complementary national average prices are recalculated for the preceding quarter using matched sets of quotations. The ratio of these directly comparable national average prices gives the estimated quarterly change in price. This is used to update the previous quarter's cost of the fixed quantity of each index variety to give the current quarter'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 quarter.

Published Results

The updated index presently being introduced with base mid-November 1989 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:

- (1) Food
- (2) Alcoholic drink
- (3) Tobacco
- (4) Clothing and footwear
- (5) Fuel and light
- (6) Housing
- (7) Durable household goods
- (8) Other goods
- (9) Transport
- (10) Services and related expenditure

An additional index is also published for *energy products* covering fuel, light, petrol, motor diesel, motor gas (LPG) and motor oil. For continuity purposes, each of these series will also be published to the former base mid-November 1982 as 100.

National average prices will be published for successive quarters in respect of the products listed in Table 2. The ratios of these national average prices in successive quarters do not give the percentage price changes actually used in the index compilation since the latter are based on *exactly matched* sets of comparable price quotations in identical shops.

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 is priced in all areas. Even in these cases the averages are not exactly comparable as already explained above for different dates because of changes in the number of shops providing quotations.

TABLE 2. — CPI PRODUCTS FOR WHICH COMPARABLE NATIONAL AVERAGE PRICES ARE PUBLISHED FOR SUCCESSIVE QUARTERS

Commodity	Unit	Commodity	Unit
Food			
<i>Beef:</i>		<i>Eggs:</i>	
Round steak	lb	Large (grade 2)	doz.
Sirloin steak	"	Standard (grade 4)	"
Rib steak	"	<i>Bread:</i>	
Leg beef (boneless)	"	White, sliced (large)	800 g.
Brisket pot roast (boneless)	"	White, sliced (small)	400 g
<i>Mutton:</i>		<i>Flour:</i>	
Whole leg	lb.	White, plain	2 kg.
Loin chops	"	White, self-raising	"
Gigot chops	"	Brown, wholemeal	"
Neck	"	Sugar, white granulated	kg.
Liver	"	Jam	lb.
<i>Pork:</i>		Marmalade	
Whole leg	lb.		
Loin chops	"		
Shoulder roast (boneless)	"	Other Products	
Steak	"	<i>Drink taken home:</i>	
<i>Bacon:</i>		Stout, 6 pack	6 x 250 mls
Best back rashers	lb.	<i>Irish Brand:</i>	
Streaky rashers	"	Beer, 6 pack	"
Ham, uncooked	"	Lager, 6 pack	"
Ham, cooked	"	<i>Foreign Brand:</i>	
<i>Other Meat:</i>		Beer, 1 can	500mls.
Sausages, pork	lb.	Lager, 6 pack	6x250 mls
Black pudding	"	<i>Drinks out:</i>	
<i>Fish:</i>		Draught stout (bar)	1 pint
Whiting fillets	lb.	<i>Irish Brand:</i>	
Cod cutlets	"	Draught beer (bar)	½ pint
Plaice fillets	"	Draught lager (lounge)	"
Kippers	"	<i>Foreign Brand:</i>	
<i>Fresh vegetables:</i>		Draught beer (bar)	1 pint
Potatoes	3½ lb.	Draught lager (lounge)	"
Potatoes	4 st.	<i>Cigarettes:</i>	
Tomatoes	lb.	Plain, std. size	20
Onions	"	Filter tipped, std. size	"
Cabbage	head	Briquettes	
Mushrooms	¼ lb.	litre	
Milk, fresh, pasteurised	litre	<i>Motor Fuel:</i>	
<i>Cheese:</i>		Petrol, grade 1	litre
Irish cheddar	lb.	Petrol, grade 2	"
Processed	½ lb.	Petrol, grade 3	"
Butter	lb.	Unleaded petrol	"
Margarine (packet)	½ lb.	Autodiesel	"

Constant-Tax Price Index

The Constant-Tax Price Index, which is derived from the CPI data, has also been rebased to mid-November 1989 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 ad-valorem tax rate (e.g. VAT) remains fixed, a change in the pre-tax price 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 1989 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 1989 to mid-February 1990 quarter, of the total increase in the CPI of 0.9 index points (from 100.0 to 100.9) non-tax factors accounted for 1.0 index points (i.e. the change from 100.0 to 101.0 in the Constant Tax Price Index) offset by a net drop of 0.1 index points due to reductions in indirect tax.

The Constant-Tax Price Index, calculated to the former mid-November 1982 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 1982 base. It is calculated simply by adding to the final mid-November 1989 index number (131.4) of the former Constant-Tax Price Index the points increase since that date in the present Constant-Tax Price Index (mid-November 1989 as 100) rescaled to the mid-November 1982 basis (by multiplying by 1.411 which is the former CPI at mid-November 1989 ÷ 100).

Appendices

1. CPI item headings with corresponding percentage expenditure mid-November 1989 base weights and constituent varieties priced.
2. CPI postal and telephone price inquiries.

APPENDIX 1

CPI item headings, percentage expenditure mid-November 1989 base weights and constituent varieties priced

Item Headings and % Expenditure Base Weights	Varieties Priced	Item Headings and % Expenditure Base Weights	Varieties Priced
FOOD		Food—continued	
Beef (1.8902)	(1) Round steak (2) Sirloin steak (3) Rib steak (or chuck) (4) Leg of beef (boneless) (5) Brisket pot roast (boneless) (6) Minced beef	Biscuits (0.5618)	(1) Cream crackers (2) Plain biscuits (3) Sweet biscuits (4) Crisp bread
Mutton and lamb (0.5798)	(1) Leg (whole) (2) Loin chops (3) Gigot chops (4) Neck (5) Liver	Cakes (0.5307)	(1) Fruit cake (2) Swiss roll (3) Doughnut
Pork (0.5618)	(1) Leg (whole) (2) Loin chops (3) Shoulder roast (boneless) (4) Steak	Fresh milk (2.2342)	(1) Fresh milk, pasteurised—pint (2) Fresh milk, pasteurised—litre
Bacon (1.2248)	(1) Best back rashers (2) Streaky rashers (3) Ham, uncooked (whole) (4) Shoulder (whole)	Other milk products (0.2925)	(1) Condensed/powerd milk (2) Fresh cream (3) Baby milk compound (4) Yoghurt
Poultry (0.9529)	Chicken, uncooked	Cheese (0.4232)	(1) Processed cheese (2) Natural cheese
Cooked meat (0.5992)	(1) Ham, cooked (2) Other cooked meat/mixture	Eggs (0.4177)	(1) Large size (grade 2) (2) Standard size (grade 4)
Sausages (0.4066)	Sausages, pork	Butter (0.8180)	(1) Butter (2) Butter, spreadable
Other meat (0.3658)	(1) Black pudding (2) Tinned meat (3) Beefburgers	Margarine (0.1710)	(1) Margarine, packet (2) Margarine, tub (soft)
Fresh fish (0.2696)	(1) Whiting, fillets (2) Cod, cutlets (3) Plaice, fillets	Other fats and oils (0.0872)	(1) Cooking fat (2) Cooking oil
Frozen fish (0.1211)	(1) Fish fingers (2) Fish fillets	Fresh fruit (0.8744)	(1) Apples, cooking (2) Apples, eating (3) Oranges (4) Bananas (5) Grapefruit
Dried/cured fish (0.0445)	(1) Fillets, smoked (2) Kippers, smoked	Tinned fruit (0.0757)	(1) Tinned pears (2) Tinned peaches
Tinned fish (0.0860)	(1) Salmon (2) Sardines	Dried fruit (0.0809)	(1) Raisins, seedless (2) Sultanas
Potatoes (0.7811)	(1) Potatoes, 3 ½ lb. (2) Potatoes, 4 stone	Tea (0.4041)	(1) Tea, loose (2) Tea, bags
Tomatoes (0.2121)	Tomatoes	Coffee (0.1596)	Coffee, instant
Other fresh vegetables (0.4479)	(1) Onions (2) Cabbage (3) Cauliflower (4) Mushrooms (5) Lettuce	Cocoa (0.0192)	Cocoa
Dried vegetables (0.0201)	(1) Dried peas (2) Dried potatoes	Sugar (0.3600)	White, granulated
Tinned vegetables (0.2147)	(1) Peas (2) Beans	Breakfast cereals (0.5041)	(1) Cornflakes (2) Wheat-based breakfast cereal
Frozen vegetables (0.1799)	(1) Peas (2) Beans (3) Chips	Oatmeal (0.0456)	Oatmeal
Bread (1.4959)	(1) White, sliced (800g) (2) White, sliced (400g) (3) Brown (400g)	Other cereals (0.0781)	(1) Rice (2) Spaghetti
Flour (0.1808)	(1) White, plain (2) White, self-raising (3) Brown, wholemeal	Jellies (0.0326)	Jelly
		Custard (0.0116)	Custard powder
		Sauces and meat extract (0.2110)	(1) Salad cream (2) Sauce (3) Meat extract (4) Ready mix sauces
		Soups (0.1549)	(1) Tinned soup (2) Dried soup
		Preserves (0.1791)	(1) Jam (2) Marmalade

Item Headings and % Expenditure Base Weights	Varieties Priced
Food—continued	
Sweets and chocolate (0.8989)	(1) Box of chocolates (2) Sweets (3) Chocolate bar (4) Multi pack sweets
Ice cream (0.2649)	(1) Ice cream, block (2) Ice pop
Baby food (0.0953)	(1) Babyfood (tin/jar) (2) Baby biscuits
Miscellaneous food items (0.6028)	(1) Salt (2) Mustard (3) Potato crisps (packet) (4) Potato crisps (multi packet) (5) Fruit juice (6) Pizza, frozen (7) Frozen meals
Soft drinks (1.0558)	(1) Mineral, can (2) Mineral, large bottle (3) Concentrated squash (4) Mineral/cola, lounge bar (5) Bottled water
Meals out (3.4731)	(1) Chips, small bag (2) School milk (3) Lunch, hotel or restaurant (4) Dining car, rail (5) Canteens (6) Fast food meal
Total Food (25.7528)	134 varieties priced
ALCOHOLIC DRINK	
Beer (7.7932)	(1) Stout, 6 pack (2) Beer, 6 pack { Irish (3) Lager, 6 pack { Brand (4) Beer, 1 can { Foreign (5) Lager, 6 pack { Brand (6) Stout, draught (bar) (7) Beer, draught (bar) { Irish (8) Lager, draught { Brand (lounge) (9) Beer, draught (bar) { Foreign (10) Lager, draught { Brand (lounge)
Spirits (3.2506)	(1) Whiskey, bottle (2) Brandy, bottle (3) Whiskey, 1 glass (bar) (4) Gin and tonic (lounge) (5) Vodka and white lemonade (lounge)
Wine (0.6863)	(1) Sherry, bottle (2) Table wine, bottle
Total Alcoholic Drink (11.7301)	17 varieties priced
TOBACCO	
Cigarettes (3.1241)	(1) Cigarettes, plain (2) Cigarettes, filter tipped
Cigars (0.0674)	Cigars
Tobacco (0.1466)	Flake tobacco
Total Tobacco (3.3382)	4 varieties priced
CLOTHING & FOOTWEAR	
<i>Men's outer-clothing— Overcoats (0.0720)</i>	(1) Heavy overcoat (2) Casual overjacket
Waterproofs (0.0109)	Cotton/terylene raincoat

Item Headings and % Expenditure Base Weights	Varieties Priced
Clothing and Footwear— continued	
Suits (0.2716)	(1) 2-piece suit, wool (2) 2-piece suit, mixture
Other men's outer-clothing (0.8813)	(1) Sports jacket (2) Jeans (3) Slacks (4) Pullover (5) Tracksuit
<i>Men's under-clothing Shirts (0.2461)</i>	(1) Shirt, cotton/polyester (2) T-shirt
Other men's under-clothing (0.0725)	(1) Vests (2) Underpants (3) Pyjamas
<i>Women's outer-clothing Overcoats (0.1234)</i>	Coat
Waterproofs (0.0229)	(1) Showerproof, lined (2) Plastic raincoat
Costumes and suits (0.5346)	(1) 2-piece suit (2) Blazer/jacket
Skirts and slacks (0.6627)	(1) Skirt (2) Slacks (3) Jeans
Other women's outer- clothing (0.6865)	(1) Blouse (2) Cardigan (3) Jumper
<i>Women's under-clothing Panties (0.0368)</i>	Panties
Slips (0.0195)	Slip
Other women's under- clothing (0.0992)	(1) Girdle/pantigirdle (2) Brassiere (3) Nightdress
Boys' outer-clothing (0.3069)	(1) Casual jacket (2) Tracksuit (3) Jeans (4) Jumper
Girls' outer-clothing (0.3828)	(1) Casual jacket (2) Skirt (3) Dress (4) Blouse (5) Girl's T-shirt (6) Girl's sweat-shirt (7) School uniform
Boys' under-clothing (0.0765)	(1) Shirt (2) Vest (3) Pyjamas (4) T-shirt
Girls' under-clothing (0.0065)	Vest
Hose (0.2768)	(1) Man's socks (2) Boy's socks (3) Woman's tights (4) Girl's socks
Other clothing (0.1794)	(1) Neck tie (2) Baby's suit
Material and haberdashery (0.2326)	(1) Dress material, woollen (2) Dress material, cotton (3) Knitting yarn (4) Thread, spool (5) Zip
Men's footwear (0.5867)	(1) All leather (2) Leather uppers and synthetic soles (3) Wellington boots (4) Casual shoes (i.e. runners) (5) Men's running shoes

Item Headings and % Expenditure Base Weights	Varieties Priced	Item Headings and % Expenditure Base Weights	Varieties Priced
Clothing and Footwear— continued		Household durables —continued	
Women's footwear (0.6231)	(1) Low heel walking shoe (2) Classic court shoe, leather upper (3) Fashion shoe, non-leather upper (4) Slippers, fabric uppers	Acoustic appliances (0.4541)	(1) Clock radio (2) Radio-cassette recorder (3) CD player (4) Hi-fi (5) Walkman (6) TV, portable, colour (7) TV, colour (8) Video recorder/player (9) Credit purchases
Children's footwear (0.3114)	(1) Boy's shoe, leather (2) Girl's shoe, leather (3) Child's wellington boot (4) Child's casual shoe (i.e. runner)	Other electric/gas appliances (0.8125)	(1) Vacuum cleaner (2) Cooker, electric (3) Cooker, gas (4) Fridge-freezer (5) Deep freeze (6) Dish washer (7) Automatic washing machine (8) Tumble dryer (9) Bottle gas heater (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 machine (21) Credit purchases
Total Clothing & Footwear (6.7229)	71 varieties priced	Electrical repairs and spares (1.1115)	(1) Battery (2) Electric plug, 3 point (3) Electric light bulb (4) Electrical repair charges (5) TV repair charges
FUEL & LIGHT		Other appliances (0.1409)	(1) Power drill (2) Lawnmower, powered
Firelighters (0.1059)	Firelighters	Other ironmongery and hardware (0.3201)	(1) Chisel, wood (2) Garden spade (3) Flower pot, plastic (4) Dustbin (5) Rotary clothes line
Coal and Anthracite (1.8165)	(1) Coal, take away bag (2) Coal, bulk supply (3) Anthracite, bulk supply	Floor coverings (0.3107)	(1) Vinyl (2) Carpet, wool/mixture (3) Carpet, synthetic
Turf and briquettes (0.5397)	(1) Peat, briquettes (2) Turf, bulk supply	Soft furnishings, etc. (0.4691)	(1) Curtain material (2) Sheet (3) Blanket, wool (4) Blanket, synthetic (5) Continental quilt (6) Continental quilt cover (7) Bath towel (8) Tea towel
Bottled gas (0.4695)	Liquid petroleum gas (LPG)	Crockery and glassware (0.1558)	(1) Coffee mug (2) Dinner service (3) Glass tumblers, set (4) Casserole dish
Piped gas (0.2730)	Domestic piped gas	Cutlery (0.0143)	(1) Table knife (2) Carving knife
Electricity (2.2338)	Domestic electricity	Kitchen utensils (0.0635)	(1) Saucepan (2) Frying pan (3) Pressure cooker
Fuel oil (0.4627)	Central heating oil	Household brushes (0.0295)	(1) Household sweeping brush (2) Polish brush
Total Fuel & Light (5.9012)	10 varieties priced	Other household durables (0.0634)	Wash-up basin, plastic
HOUSING		Total Household Durables (4.7146)	74 varieties priced
Rents (1.5150)	(1) Local Authority dwellings (2) Privately owned dwellings		
Local Authority charges (0.1789)	(1) Water charges		
Mortgage interest (3.3864)	(1) Local Authority (2) Building Society		
House insurance (0.6450)	(1) Dwelling (2) Contents		
Repairs and decorations (1.4309)	(1) Paint, gloss (2) Paint, emulsion (3) White spirit (4) Gravel (5) Sand (6) Cement (7) Concrete block, solid (8) Concrete block, hollow (9) Paving slabs (10) Wall cappings (11) Timber (12) Chipboard (13) Hardboard (14) Plasterboard (15) Glass (16) Paint Brush		
Total Housing (7.1563)	23 varieties priced		
HOUSEHOLD DURABLES			
Furniture (0.7693)	(1) 3-piece suite (2) Dining chair (3) Dining table (4) Kitchen table (5) Kitchen chair (6) Chest of drawers (7) Divan bed (8) Dropside cot (9) Kitchen units		

Item Headings and % Expenditure Base Weights	Varieties Priced	Item Headings and % Expenditure Base Weights	Varieties Priced
OTHER GOODS		Other goods—continued	
Household soap (0.0078)	Household soap.	Records, tapes and cassettes (0.1515)	(1—2) Records, LP (2) (3) Record, single (4) Cassette, pre-recorded (5) Cassette, blank (6) Video cassette, blank (7—8) Compact disc (2)
Detergent power (0.5243)	(1) Automatic washing machine (2) Dishwasher	Photographic goods and services (0.1266)	<i>Films—</i> (1) 35 mm film for colour prints (2) 110 colour film <i>Development charges—</i> (3) Express film development (4) 110 colour prints (5) 35 mm colour prints <i>Cameras—</i> (5) Instamatic pocket camera (6) 35 mm camera (7) Autofocus compact 35 mm camera
Other cleaning material (0.1569)	(1) Household cleaner (2) Domestic disinfectant	Total Other Goods (5.8502)	145 varieties priced
Other domestic non-durables (0.5116)	(1) Plastic rubbish bags (2) Kitchen paper, roll (3) Polish, shoe (4) Toilet paper (5) Matches (6) Cling film (7) Household lubricating oil (8) Household adhesive	TRANSPORT	
Toilet soap (0.0707)	Toilet soap	Motor cycles (0.0382)	(1—4) Motor cycles, new (4 models)
Toothpaste (0.0792)	Toothpaste	Motor cars (4.1769)	(1—29) Motor cars, new (29 models) (30) Credit purchases
Hair applications (0.1794)	(1) Shampoo (2) Hair gel	Other vehicles (0.1790)	(1) Go-car or baby buggy (2) Bicycle
Cosmetics (0.3218)	(1) Shaving cream (2) Baby powder (3) Cold cream (4) Lipstick (5) Perfume (6) Deodorant	Motor tax and registration (0.6447)	(1) Motor Cycles (2) Motor cars
Toilet accessories (0.4255)	(1) Sanitary towels/pads (2) Disposable nappies (3) Paper tissues (4) Toothbrush (5) Razor blades	Motor insurance (1.7184)	<i>Motor cycle cover—</i> (1) Two hypothetical risks <i>Motor car cover—</i> (2) 3rd party, selection of risks (3) 3rd party, fire and theft, selec- tion of risks (4) Comprehensive, selection of risks
Personal goods (0.4690)	(1) Suitcase (2) Umbrella, man's (3) Digital wristwatch (4) Pocket calculator (5) Cigarette lighter	Motor fuel (4.3323)	(1) Petrol—grade 1 (2) Petrol—grade 2 (3) Petrol—grade 3 (4) Unleaded petrol (5) Motor gas (LPG) (6) Diesel
Sporting goods (0.1487)	(1) Golf ball (2) Tennis ball (3) Football, leather (4) Tennis racket	Motor oil (0.0694)	Motor oil
Toys (0.2987)	(1) Child's doll (2) Model car (3) Lego set (4) Group game (5) Fisher Price toy	Spare parts (0.4414)	(1) Motor car tyres—radial (new) (2) Motor car tyres—radial (remould) (3) Batteries (4) Set of spark plugs (5) Dynamo (6) Fan belt (7) Bicycle tyres (8) Set of points (9) Oil filter (10) Air filter (11) Alternator
Paper goods (0.2422)	(1) School copybook (2) Envelopes (3) Refill pad	Repairs and maintenance (0.6664)	(1) Car service (2) Puncture repair (3) Car wash
Stationery equipment (0.0670)	(1) Cellotape (2) Pencil, black lead (3) Felt markers (4) Ball-point pen	Other vehicle costs (0.0580)	(1) Parking fees (2) Parking fine (3) Motoring organisation subscriptions
Comics (0.1499)	(1) Infant's book (2—7) Comics (6)	Bus fares (0.8594)	(1) Dublin City services (2) Cork City services (3) Limerick City services (4) Waterford City services (5) Galway City services (6) Provincial services (7) School bus fares (8) Bus/Rail commuter tickets
Magazines and journals (0.1970)	(1—7) Woman's (7) (8—12) Other (5)		
Newspapers (1.3291)	(1—9) Dailies—national (9) (10—19) Dailies—foreign (10) (20—44) Provincial (25) (45—48) Sunday—national (4) (49—56) Sunday—foreign (8)		
Books (0.3933)	(1) Primary school (selection) (2) Secondary school (selection) (3) Third level (selection) (4) Paperback (novels) (5) Encyclopaedias		

Item Headings and % Expenditure Base Weights	Varieties Priced	Item Headings and % Expenditure Base Weights	Varieties Priced
Transport—continued		Services and Related Expenditure—continued	
Train fares (0.1880)	(1) Main line services (sample of routes/ticket types) (2) Suburban services	Medicines and drugs (0.7112)	(1—110) Representative selection of 110 pharmaceutical products (111) Pain reliever (112) Milk of magnesia (113) Petroleum jelly (114) Adhesive dressing (115) Proprietary cough mixture
Other travel (0.3765)	(1) Taxi fares, Dublin City (2) Taxi fares, Cork City (3) Care hire charges (4—6) Boat fares (3 routes) (7—17) Air fares (11 routes)	Hospital charges (0.1093) (<i>net of health insurance refund</i>)	<i>Maintenance—</i> (1) Public ward (2) Semi-private room (3) Private room <i>Other services—</i> (4) Operating theatre fee (5) Pathological test (blood) (6) Pathological test (urine) (7) X-ray (8) Blood transfusion (9) Other hospital charges
Total Transport (13.7488)	94 varieties priced	Other medical expenses (1.2156)	(1) Spectacle lenses (2) Full dentures (3) Health insurance
SERVICES & RELATED EXPENDITURE		Hairdressing (1.0029)	(1) Man's hair cut (2) Man's wash and blow dry (3) Woman's shampoo and set (4) Woman's shampoo, cut and blow dry (5) Woman's perm
Cinema (0.1148)	Cinema	Shoe repairs (0.1181)	(1) Man's shoe, soling and heeling (2) Woman's shoe, heeling
Dancing (0.5331)	Dance/disco admission	Laundry and dry-cleaning (0.2682)	<i>Laundry—</i> (1) Blanket (2) Pillowcase (3) Sheet (4) Tablecloth (5) Towel (6) Shirt (7) Trench coat (8) Denim jeans (9) Handkerchief <i>Launderette—</i> (10) washing, basic charge <i>Dry-cleaning—</i> (11) Charge for man's suit (12) Charge for woman's Coat
Other entertainment (0.8257)	<i>Sports admission charges—</i> (1) GAA matches (2) Soccer matches (3) Rugby matches (4) Dog racing (5) Horse racing <i>Sports participation charges—</i> (6) Golf, green fees (7) Swimming (8) Squash <i>Other admission charges—</i> (9) Dublin Zoo (10) Historic places (11) Ballad sessions (12) Theatre and concerts	Other services (0.6790)	(1) Dress hire—morning suit (2) Dress hire—evening suit (3) Newspaper advertisement (4) Repair of zip (5) Cleaning of watch (6) Milk delivery charge (7) Ear piercing (8) Passport photograph (9) Furniture removal (10) Chimney sweeping (11) Tool hire (12) Video film hire (13) Library charges
Education and training (1.6872)	<i>Primary level fees—</i> (1) Play/nursery schools (2) Private primary schools <i>2nd level fees—</i> (3) Vocational schools (4) Secondary day schools (5) Secondary boarding schools <i>3rd level fees—</i> (6) Universities (7) Other 3rd level institutions <i>Living cost away from home—</i> (8) University residences (9) Boarding houses (10) Flats <i>Other education</i> (11) Language course, cassette (12) Language course, classes (13) Driving lessons, day (14) Driving lessons, night (15) Music lessons (16) Commercial courses (17) Extra mural courses (18) Examination fees (19) Applications fee for 3rd level institutions	Postage (0.1597)	(1) Post cards (2) Letters, local (3) Letters, overseas (4) Parcels, local (5) Parcels, overseas
Doctors', dentists', opticians' fees (0.5708)	<i>Doctors' fees—</i> (1) Surgery consultation (2) House calls, weekday (day) (3) House calls, weekday (night) (4) House calls, weekend (5) Specialists' fees <i>Dentists' fees—</i> (6) Extraction (7) Filling (8) Scaling and polishing <i>Opticians' fees—</i> (9) Eye test	Telephone (1.3223)	(1) Private phone (2) Public phone, local call (3) Public phone, trunk call

Item Headings and % Expenditure Base Weights	Varieties Priced	Item Headings and % Expenditure Base Weights	Varieties Priced
Club, society contributions (0.2646)	(1) Golf clubs. (2) Rugby clubs	Services and Related Expenditure—continued	
Trade unions professional association contributions (0.4885)	(1) Trade union (2) Civil service associations	Hotel and guest house accommodation charges (0.1814)	(1) Hotels (2) Guest houses
TV and aerial rental (0.5710)	<i>TV rent—</i> (1) Coloured sets—new agreements (2) Coloured sets—2 year old agreements <i>Video Rent—</i> (3) New agreement <i>Communal aerial—</i> (4) Subscription charge	Expenditure abroad (2.8612)	Expenditure abroad
Licences (0.4180)	(1) Monochrome TV licence (2) Coloured TV licence (3) Provisional driving licence (4) Full driving licence (5) Dog licence (6) Gun licences (7) Fishing licences	Other expenditure (0.9824)	(1) Dog food (2) Peat moss (3) Garden fertiliser (4) Driving test fee (5) Passport fee (6) Birth certificate fee (7) Bank charges (8) Flowers
		Total Services & Related Expenditure (15.0850)	235 varieties priced
		Total All Items (100.0000)	807 varieties priced

APPENDIX 2

Postal and Telephone Price Inquiries

- (1) *Meals out:* Prices for canteen meals and meals in rail dining cars are surveyed by post each quarter to supplement the prices for hotel and restaurant meals surveyed locally by Price Collectors.
- (2) *School uniforms:* Prices for school uniforms are obtained each August from a sample of suppliers.
- (3) *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.
- (4) *Domestic gas:* The local gas companies are contracted by post each quarter for details of any changes in their domestic tariffs.
- (5) *Electricity:* The Electricity Supply Board provides an estimate of the overall percentage change in their domestic electricity rates whenever its tariffs change.
- (6) *Domestic fuel oils:* The principal oil companies are contacted by post each quarter for details of any changes in their consumer prices for central heating fuel oils.
- (7) *Rents:* Changes in the average level of 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.
- (8) *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.
- (9) *Mortgage interest repayments:* The mortgage interest rates being charged by Building Societies and Local Authorities are surveyed by post each quarter for the estimation of changes in the interest cost of house purchase mortgages (as described in the text). Capital repayments are not covered.
- (10) *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. Changes in the insured value of dwellings are taken into account each quarter using the House Building Cost Index published by the Department of Environment. The relevant component of the CPI is used to update the value of house contents for this purpose.

- (11) *House repair and decoration supplies:* The prices of a representative selection of materials for home repairs and decorations are obtained quarterly by postal inquiry from a national sample of Builder's Providers.
- (12) *Built-in kitchen furniture:* Prices for a number of built-in kitchen furniture units are obtained from a sample of specialist suppliers each quarter.
- (13) *Credit purchase:* Details of the interest rates charged for credit purchase agreements relating to
 - acoustic appliances
 - household appliances
 - motor cars
 are obtained quarterly from a panel of finance companies.
- (14) *Electrical/TV repair charges:* Details of rates charged by the Electricity Supply Board and a selection of other firms are surveyed quarterly.
- (15) *Newspapers and periodicals:* The prices of all the principal national, provincial and foreign newspapers, and of a comprehensive selection of periodicals are obtained each quarter.
- (16) *Text books:* The prices charged for a representative selection of primary, secondary and third level text books are obtained by post each quarter from a sample of booksellers.
- (17) *Motor vehicles:* Estimates of the quarterly 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.
- (18) *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 quarter.
- (19) *Motor car tyre and parts:* The prices of a selection of motor tyres are obtained by post each quarter from a sample of specialist 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.
- (20) *Motor vehicle maintenance:* A national sample of major garages is surveyed by post each quarter for details of the actual amounts charged for a standard service to specified motor vehicles. This inquiry also covers motor tyres and a range of motor parts.
- (21) *Other motoring expenses:* Details of parking fees, parking fines and subscription to motoring organisations are obtained quarterly from the relevant authorities.
- (22) *Transport:* When fares change Coras Iompair Éireann (C.I.E.) provides 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 quarter 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 quarterly changes in the cost of school transport and the hire of self-drive cars.
- (23) *Miscellaneous admission charges:* Admission charges for sports fixtures, ballad sessions, historical places, cabarets, theatres and concerts are surveyed by post and telephone. Cinema and dance/disco admission charges are surveyed locally by Price Collectors.
- (24) *Education:* Details of the fees charged to students are obtained by postal inquiry each November 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, secretarial courses and fees for examinations and applications for university courses.
- (25) *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.
- (26) *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.
- (27) *Pharmaceutical products:* Actual prices charged by a sample of chemist shops throughout the country for a representative list of pharmaceutical products are obtained by post quarterly.
- (28) *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.
- (29) *Miscellaneous medical expenses:* The prices of spectacle lenses and dentures are also surveyed in the quarterly postal inquiries addressed to opticians and dentists, respectively.

- (30) *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.
- (31) *Milk delivery charges*: Milk delivery charges, which exist only in the Dublin area at present, are included in the index coverage.
- (32) *Miscellaneous services, etc.*: Quarterly 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 passport photographs are surveyed in a variety of quarterly inquiries.
- (33) *Postage and telephone*: Details are obtained directly from An Post and An Bórd Telecom on the occasion of any changes in their tariffs.
- (34) *Regular subscriptions*: Details of subscription rates are obtained quarterly in respect of Trade Unions and Civil Service Associations, and annually in respect of representative samples of golf, rugby and squash clubs, together with a number of recreational and academic societies.
- (35) *Television rents*: Particulars of rental charges for televisions and video recorders/players are surveyed quarterly.
- (36) *Licences*: Changes in the cost of driving, television, dog, fishing and gun licences are obtained from the relevant authorities when rates change.
- (37) *Expenditure abroad*: This item covers the total cost (including travel) of foreign holidays of at least four nights away from home and all other private expenditure incurred abroad (see definition in 1987 Household Budget Survey). The quarterly price indicator used reflects changes in air/sea fares, in the cost of packaged hotel/apartment holidays abroad offered by Irish tour operators, and in the prices charged in the U.K. and popular continental tourist countries for food, drink, meals out and travelling as shown by the relevant national consumer price indices.