



Central Statistics Office
An Phríomh-Oifig Staidrimh

Information notice

Consumer Price Index (CPI)

Frequently Asked Questions

Q 1 What is the CPI?

The Consumer Price Index is the Official measure of Inflation in Ireland. It measures the change, in index form, in the average level of prices (inclusive of all indirect taxes) paid for consumer goods and services by all private households in the country and by foreign tourists holidaying in Ireland. The index is a pure price index and therefore measures price change only.

Q 2 Why are tourists included in the index and how is this done?

Up to 2001 the CPI was based on the resident concept - covering all private households in the country while the HICP was based on the domestic concept which included residents of institutional households (insignificant in Ireland) and foreign tourists on holiday within Ireland. In order to make the CPI and HICP more comparable, the CPI moved to this domestic concept in December 2001. To achieve this, the additional expenditure of tourists was added to the total expenditure of private households in those expenditure groups where tourists would typically spend money such as alcohol, meals out, accommodation, car hire, public transport and entertainment and recreation. Approximately 6% was added to private household expenditure to take into account the additional expenditure by tourists while on holiday within Ireland.

Q 3 What is the HICP and how does it differ from the CPI?

The Harmonised Index of Consumer Prices is the measure of price changes calculated by each Member State of the European Union. The index is based on a harmonisation and standardisation of practices within the EU and the purpose is to allow for the comparison of different consumer price trends in the different Member States. Weighted indices for the EU12 (Eurozone) and the EU15 (15 member states) are calculated by Eurostat.

Certain items are excluded from the coverage of the HICP, which in essence makes the HICP a subset of the main CPI. The HICP expenditure covers 91% of the total CPI expenditure and excludes mortgage interest, building materials, union subscriptions, motor taxation and the non-service elements of motor and house insurance. In addition, the weight of health insurance is lower in the HICP, where net rather than gross household expenditure on health insurance is used.

Q 4 What is the better measure the CPI or the HICP?

The CPI with greater coverage is a better measure for national purposes but for intra EU comparisons the HICP, based on harmonised practices, is the more correct measure. The CPI, however, remains the official measure of inflation in Ireland.

Q 5 Who uses the CPI?

The CPI is an important economic measure in that it monitors price change in the economy. It also serves as a means of benchmarking or setting increases in pay, social welfare, pensions, house insurance and other contracts. It can also be used to update or determine the value of a sum of money from the past e.g. the equivalent value of £2,000 in 1951 to today's level. In effect the CPI shows the change in the value of money over time.

Q 6 Is the CPI a cost of living index?

No. The CPI is a pure price index and measures the change in the level of prices of consumer goods and services. A cost of living index includes items such as income levels, taxation, social welfare payments and substitution between dearer and cheaper goods. This concept would be rather difficult to construct. The change in the level of prices is one of the major determinants of the change in the cost of living and it is only this element that the CPI covers.

Q 7 Is the index representative of the average consumer?

Yes. The index is based on the expenditure profile of the average private household in Ireland. This is based on data from the national Household Budget Survey which is conducted every five years.

Q 8 Whose buying habits does the index reflect?

The index covers the average consumer. It doesn't cover the profile of any one individual or household but is based on the average profile for the nation as a whole. As such it represents both young and old, rich and poor, urban and rural. The profile covers the average for the country as a whole.

Q 9 What happens when my expenditure profile is different?

Individuals have different tastes and needs, some people have mortgages, some people rent while others own their houses outright. While an individual may have a different expenditure profile and therefore, his/her actual experience of inflation may be different to the average, an economy is not organised on the basis of millions of individual inflation rates - this is why an average rate representing the average consumer is produced - an average rate to represent the country as a whole.

Q 10 What is the Household Budget Survey?

This survey is carried out every 5 years by the Central Statistics Office to measure the expenditure and income of households. A detailed record of household expenditure is recorded by members of the household over a period of time. The data from the Household Budget Survey is used as the basis for the weighting of items in the CPI basket.

Q 11 What is included in the basket of Goods & Services?

The basket currently covers a range of consumer goods and services. A total of 613 items are included in the basket and these items are representative of goods and services typically purchased by the average consumer. The basket is split on the basis of 51% Services with the remaining 49% covering Goods.

Q 12 What items of household expenditure are excluded from the index?

Investments such as life assurance, pensions, and capital payments on house purchase (mortgage), charity contributions, lottery and betting payments and items which do not command a price are excluded from the scope of the index

Q 13 Are the items in the basket reflective of modern consumer tastes and patterns?

Yes. Every five years the basket is reviewed and new products and services are introduced while older less popular items are deleted from the list. In 2001 new items added to the list included frozen meals, convenience foods, deli counter foods, meals in ethnic restaurants, fine quality wines, sports & leisurewear and services such as beauty treatment, professional services, household maintenance services and social protection services.

Q 14 What does the term weight mean?

The weight is the proportion of total expenditure spent on a certain item or category of goods. For example the percentage of total expenditure on Food & Non Alcoholic Beverages is 14.092%. In simple terms it means the average expenditure on Food was just over 14%. The weight presents the relative importance of an item or category in the overall basket.

Q 15 Does the index cover the entire country?

Yes, every county is covered by the index. The survey is based on a sample of 86 cities and towns throughout the country, including the Dublin Metropolitan Area, the four regional cities of Cork, Galway, Limerick and Waterford and a sample of larger towns, medium sized towns and a small sample of small towns.

Q 16 Does the index take account of the importance of Dublin and the regional cities in terms of population?

Yes. The index is based on calculating for each item a weighted National Average Price. Prices are sorted into five predefined areas (by reference to town size rather than geographical area) to which area weights are applied to give a weighted price. Because the greater proportion of the urban population live in Dublin and the four regional cities, these areas are given a large weight to reflect their importance in terms of size of population, higher average incomes and commuter population.

Q 17 Are there separate indices for different regions of the country or for different household types?

No. There is only one index covering the average household across the entire country.

Q 18 How does the CSO select pricing locations and individual retail outlets?

All large towns and smaller samples of other towns are selected on the basis of population. Care is taken to ensure that every county is covered and the towns selected are not over concentrated in one part of a county to the detriment of other parts. Pricers are appointed in locations and they, using local knowledge, select a range of retail and service outlets to be priced. Within the cities, where there are multiple locations, areas are pre-selected by reference to population. In addition, certain pricers concentrate on designated outlets such as the major department stores or major shopping centres such as Liffey Valley or Blanchardstown.

Q 19 How does the index cover the profile of the retail and service sector?

On a monthly basis approximately 200 pricers collect prices from over 3,500 outlets throughout the country. Pricers try to select outlets which are representative of a particular area and cover a mixture of large and smaller outlets - a mixture of supermarkets, small specialist shops and other outlets. In the case of services, a sample of respondents are selected throughout the country as representative of all service providers and canvassed via Special Inquiries. In a certain number of cases, such as electricity, national prices exist and only one price needs to be collected.

Q 20 What are Special Inquiries?

Special Inquiries is the term given to the CPI postal and telephone inquiries. Of the 613 items in the basket 501 items are collected by pricers in direct pricing operations while 112 are collected under the heading Special Inquiries. These cover a wide range of items such as rents, mortgage interest repayments, medicines, insurance and most professional services.

Q 21 Is every item priced on a monthly basis?

In the direct pricing operations every item is priced on a monthly basis. In the case of certain items, such as school fees and electricity, prices change less frequently. Some items are collected quarterly and other just once a year. However, where an item is not due to be priced for a number of months but a price change occurs in advance of the relevant pricing period the CSO brings forward the period of price collection to capture the increase at the point of introduction.

Q 22 What is the reference period for the CPI?

The base reference period for the current CPI series is December 2001 = 100. Former bases relate to Nov '96, Nov '89, Nov '82, Nov '75, 1968 and so on.

Q 23 What is the reference day for pricing?

The reference day for pricing is the 2nd Tuesday of each month. So the index for April relates to the 2nd Tuesday in April. The same fixed date of the 2nd Tuesday of each month is used to ensure consistency.

Q 24 What is a rebase?

A rebase is the process where the CPI is updated to reflect (a) changes to the basket of Goods and Services, (b) the introduction of updated weights based on the latest Household Budget Survey, and (c) the introduction of a new base reference period - Dec 2001=100. As and from 1996, this rebase occurs every 5 years with the next rebase due in January 2007 (Dec 2006=100).

Q 25 How are different series linked together?

Series with different base periods are linked or chained together at the base reference month. For example Series 1 to base Nov 96=100 links at Dec 2001 to Series 2 (Dec 2001=100). This produces a continuous series over two periods to Nov 96=100 base. This process can be repeated a number of times and the resultant index can be rescaled or referenced to any date within that period.

Q 26 What is a Laspreyes Index?

The CPI uses a modified version of the Laspreyes Index to calculate the index. It does this by comparing the current price of a fixed quantity of goods and services with the price of the same fixed quantity in the base period. Each month the expenditure of the previous month is price updated to give the updated value or cost of the fixed basket. This is then compared to the base reference period to generate index numbers.

Q 27 How is the Index calculated?

The process is based on a matched basket approach. Prices this month are matched against the previous month to generate a matched current price against a matched previous price. If a price is missing this month but was present in the previous month it must be deleted from the previous month's calculation to ensure the correct match. A matched weighted National Average Price for the current month is compared to an adjusted weighted National Average Price for the previous month to generate a price relative. This relative is applied to the previous month's expenditure to give the current month's updated expenditure value. This forms the basis for the index.

Q 28 What are the main outputs?

Two statistical releases are produced on a monthly basis outlining the overall CPI, HICP, a breakdown into 12 main COICOP headings and more detailed subindices (subindex release). More detailed series are available in tabular format.

Q 29 How does the index deal with changes in indirect taxes?

Changes in indirect taxes are reflected in retail prices and are therefore captured in the CPI.

Q 30 What does it mean to say 'falling out of the index'?

A price increase once introduced stays in the annual rate of inflation for a 12-month period. If that price increase is not followed by a corresponding price increase or replicated a year later, the increase introduced a year ago no longer has an effect on the annual rate of inflation - example an increase in VAT or a price increase for medical insurance. This is a formula effect where the increase 'falls out' of the index calculation - the increase no longer has an effect on the rate of inflation.

Q 31 Are House Prices included in the Index?

Yes and no. House prices are not taken into account directly in the index but are used to estimate the changing size of the average mortgage. Each month the average mortgage size increases in size reflecting the monthly change in house prices. Increasing house prices are reflected in the index in the form of higher average mortgage interest repayments. The capital cost of purchasing a house is excluded.

Q 32 How is Mortgage Interest calculated?

The CSO uses a basket of 240 mortgages, reflecting mortgages of different durations and sizes from the latest mortgage taken out in the past month to one 20 years old. Each month the oldest mortgage is dropped off and the newest mortgage is added to the basket - reflecting the increase in house prices. A weighted interest rate, weighted by reference to the market share between bank and building society and by market share of each institution within these two categories, is applied to the average mortgage size to estimate the value of interest repayments for the nation.

Q 33 How does the index deal with Quality changes?

Sometimes improvements to the quality of an item are matched by a price increase. Some element of this increase can be assigned to the improvement in quality and the remainder as a real price increase. This is really an issue for areas of major technological advancement such as motor cars. For most items we use an implicit method of quality adjustment using the matched basket approach. If something has changed radically it is deemed to be non-comparable to the replaced item and excluded from the calculations in the month in question. In this way the item excluded is assumed to have moved by the same level as other items that remain in that strata. The difference between this implied price and the price of the new item is deemed to be a measure of the improved quality. Direct methods such as hedonics and option pricing may be employed in the future.

Q 34 What is the difference between a percentage and a contribution?

The percentage change measures the percentage change in the price level over a period. The contribution measures the effect or the contribution of individual items or headings to the overall change in the month, quarter or year.

Q 35 How does the CPI deal with discounts?

Discounts are included in the CPI if the offer is non-restrictive i.e. open to the general public with no special conditions and if it does not involve extra expenditure. For example a special offer of 1/3 extra volume free would be treated as a price reduction of a third with the return in a subsequent period to its normal size treated as a price increase but, an offer such as buy two and get the third free is excluded because it involves additional expenditure.

Q 36 Are Sales included in the CPI?

Yes. The CPI covers all sales with the main sale periods being January and July. Following sales, the CPI shows recoveries from sale prices. Items that are marked down a second time are treated as clearance items and are excluded from the CPI.

Q 37 What is meant by a zero to positive price?

A zero to positive price is where an item that was previously free of charge commands a price. An example of this was the introduction of the plastic bag tax. It also covers items such as the drug refund scheme where thresholds rise and these higher thresholds result in increased contributions by households and are treated as price increases. As the item did not command a price, no price comparison is possible. The CSO estimates the additional expenditure by the household and generates the corresponding price change as the increase in expenditure.

Q 38 What are billing cycles?

In the case of Electricity, a unique billing cycle exists. A price increase is announced and becomes effective for one half of the population in one month and for the remainder of the population in the next. This occurs because the customers are billed in two phases with half the country billed one month and the remainder the next month. In this case where there is a clearly defined small number of cycles, any price increase is split into two phases rather than coming into the index in one phase. Where this happens the CPI release notifies users.

Q 39 How many prices are collected on a monthly basis?

Each month over 50,000 prices are collected in the direct pricing operations and another 2,000 to 3,000 price quotations are collected via postal inquiries. This represents a higher proportion than most other countries in terms of population. In the UK approximately 130,000 prices are collected on a monthly basis with a population of 58.9 million giving an average 2,207 price quotations collected per million population. In Ireland the corresponding ratio is 13,275 price quotations per million population.

Q 40 How does the CSO ensure the quality of the data collected?

Pricers are trained upon appointment and every number of years are called to Pricer Discussion Group meetings to discuss issues relating to pricing and selection of items and brands. When pricing, pricers record descriptions as well as prices and try to price the same item month after month. They use a series of codes to show sales, recoveries from sales, verification of prices, comparable items and non-comparable items. When pricing books are returned to the Office, CPI HQ staff scrutinise the pricing books and query items where necessary. Prices are

then keyed twice to ensure accuracy. Batch edits showing large price changes are generated and these are examined in detail. Area Average Prices and trends are compared. Final results are checked for accuracy.

Q 41 How does Ireland fit into European Price Indices?

Ireland is one of the 12 countries making up the EU 12 or Euro zone inflation and one of the 15 making up the EU15 average. The indices of the 12/15 countries are weighted by reference to country weights. Ireland represents just over 1% of the EU15 total weight. Despite our small size we are an active participant in HICP Working Groups and Task Forces where discussions on further harmonisation of the HICP are ongoing.

Q 42 What is the Classification system used?

The CPI and the HICP use COICOP, the Classification of Individual Consumption by Purpose, which classifies household expenditure into 12 main headings at 2-digit level with further disaggregations at 3 and 4 digit level. For national purposes the CSO has disaggregated, in certain cases, the lowest COICOP breakdown into a fifth digit for national purposes. In addition, the former national classification used up to 2001 is included for continuity purposes in the CPI supplementary release.

Q 43 How important is the monthly change?

The monthly change measures the change in prices since the previous month. Each month we tend to focus on the annual rate of inflation. When looking at the latest month you should also look at what happened in the same month of the previous year. If the monthly increase this month is higher than for the same period last year then the annual rate of inflation will rise. In effect the annual rate of inflation for each month is a more meaningful statistic.

Q 44 How can I get CPI information?

In addition to the two paper publications, which are also available in electronic format on the CSO website (www.cso.ie), requests can be made by phone, in writing, through our main Information service or through our specialised email account (cpi@cso.ie). Detailed subindices are also available via email or post at an annual charge.

Q 45 What are the CPI excl. Indices?

The CSO produces a number of subindices (a) CPI excl. Housing, (b) CPI excl. Tobacco and (c) CPI excl. Mortgage Interest. These are calculated by excluding the expenditure of the excluded item from the calculations and the relative weights of all other items in the basket adjust upwards.

Q 46 Is every possible service or item covered under each heading?

No. As one can appreciate there are thousands of lines in every supermarket. Representative items under each heading are selected. For example, under household services the following sample of items are included for pricing (a) electrician - cooker connection, (b) plumber - plumbing a washing machine, (c) boiler maintenance, (d) locksmith and (e) burglar alarm maintenance. While the list is by no means exhaustive, the items chosen are representative of all the items or services which can be classified under each category and the assumption is made that the price movements of the items priced will move in the same direction or level as other items in that stratum.

Q 47 How can I get information about Inflation in other countries?

Each statistical office publishes data on their web site. Useful links to European and international statistical agencies can be found on the CSO web site (www.cso.ie - links).

Q 48 How does the CPI measure prices in areas where the State is the main social provider?

In the case of health and education, the vast majority of services are provided by the state. The CPI only covers those items where there is a public charge or where the service is provided on a private basis such as boarding schools and private hospitals.

Q 49 Does the CSO produce National Average Prices for every item?

No. For certain items such as the price of a pint of Stout or 20 Cigarettes a national average price is calculated and published. This can only be published where the unit of measure is common or standard. In most other cases

the CSO identifies the item to be priced, for example coffee, and the pricer is free to select both the brand and the size so long as they price the same brand and size each month. In this way, we ensure we get many different brands and sizes rather than restricting the pricer to select a fixed item.

Q 50 What happens until the next rebase?

The CSO will continue to improve further the quality and accuracy of the index. We will continue to review the special inquiries and keep the samples and weighting structures up to date. Any developments occurring in the HICP will be incorporated into the CPI. Planning for the next rebase in 2006 will begin late in 2004.

Further Information

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