



**An  
Phríomh-Oifig  
Staidrimh**

Central  
Statistics  
Office

# **Standard SIMS Report: Consumer Price Index**



# Single Integrated Metadata Structure (SIMS) Report

For

## Consumer Price Index

This documentation applies to the reporting period:  
**2023**

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## 2. Introduction

The Consumer Price Index (CPI) is designed to measure the change in the average level of prices of goods and services bought for the purpose of consumption by all private and institutional households in Ireland and by foreign tourists while on holiday within Ireland. The first official CPI for the State was introduced in March 1922 (base: July 1914=100). The CPI is an important macro-economic indicator and is the official measure of inflation in Ireland.

The Harmonised Indices of Consumer Prices (HICP) which is a variant of the CPI was introduced in March 1997. HICPs are a set of CPIs that are calculated according to a harmonised approach and a single set of definitions. HICPs give comparable measures of inflation across countries for which it is compiled, the euro area and the European Union (EU) as a whole.

The CPI is an important macro-economic indicator in that it monitors price change in the economy. The purpose of the HICP is to give comparable measures of inflation across countries for which it is compiled, the euro area and the EU as a whole.

Although the information contained in this document is written in the context of the CPI, much of the information is also relevant for the HICP. Where differences occur, they will be highlighted.

The first official CPI for the State was introduced in March 1922 (base: July 1914=100) and the CPI has been published continuously since then.

## 3. Contact

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## 4. Metadata Update

### 4.1. Metadata last certified

07/09/2022

### 4.2. Metadata last posted

30/09/2022

### 4.3. Metadata last update

07/09/2022



## 5. Statistical Presentation

### 5.1. Data Description

The CPI is a pure price index. Each month, the CPI is compiled from prices collected for a “fixed basket” of representative goods and services. The total cost of the basket will change as the prices of individual items in the basket change. The CPI measures the change in the total cost of this “fixed basket” with reference to the base period (December 2016 = 100).

The CPI also provides information on month-on-month and year-on-year changes in the average level of prices of goods and services bought by consumers.

The harmonised index of consumer prices (HICP) is a consumer price index (CPI) that is calculated according to a harmonised approach. It measures the change over time of the prices of consumer goods and services acquired by households (inflation).

### 5.2. Classification System

European Classification of Individual Consumption by Purpose Adapted to the Needs of Harmonised Indices of Consumer Prices (COICOP/HICP) (2000). This replaced the former national classification which was used up to January 2002. There are 12 COICOP divisions (i.e. 2-digit level). The 12 COICOP divisions are further broken down into COICOP groups (i.e. 3-digit level), COICOP classes (i.e. 4-digit level) and ECOICOP sub-classes (i.e. 5-digit level)

[https://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST\\_NOM\\_DTL&StrNom=COICOP\\_5&StrLanguageCode=EN&IntPcKey=&StrLayoutCode=HIERARCHIC](https://ec.europa.eu/eurostat/ramon/nomenclatures/index.cfm?TargetUrl=LST_NOM_DTL&StrNom=COICOP_5&StrLanguageCode=EN&IntPcKey=&StrLayoutCode=HIERARCHIC)

Nomenclature of Territorial Units for Statistics 3 (NUTS 3) is an EU classification of EU member states at a regional level. Ireland is divided into eight NUTS 3 regions. These eight NUTS 3 regions have been combined into 5 CPI areas.

### 5.3. Sector Coverage

The HICP covers the final monetary consumption expenditure of the household sector.

### 5.4. Statistical Concepts and definitions

The CPI expresses the current cost of a *fixed* basket of consumer goods and services as a percentage of the cost of the *same* basket at the base period mid-December 2016. Since November 1996, the basket has undergone a complete revision every five years. Over the five years, the CPI is a fixed quantity price index: it measures the change in the price of a basket of fixed composition, quantity and as far as is possible quality.

The data is presented in the CPI/HICP publications in the following format:

- Index (with reference to the base period)
- CPI - percentage changes and percentage contributions for 1 month, 3 months and 12 months are published
- HICP - percentage changes and percentage contributions for 1 month and 12 months are published
- National average prices (NAPs) are published each month on the CSO database for 76 items.

The main statistical variables are price indices.



## 5.5. Statistical Unit

Prices are collected from retail outlets (e.g. supermarkets, outlets in retail parks, specialist shops, garage forecourts) and service providers (e.g. utility companies, insurance companies).

The basic unit of statistical observation are prices for consumer products.

The price used is that for a cash transaction. Value Added Tax (VAT) and compulsory service charges are included.

## 5.6. Statistical Population

The target statistical universe is the 'household final monetary consumption expenditure' (HFMCE) on the economic territory of the country by both resident and non-resident households.

The household sector to which the definition refers, includes all individuals or groups of individuals irrespective of, in particular, the type of area in which they live, their position in the income distribution and their nationality or residence status. These definitions follow the national accounts concepts in the European System of Accounts.

## 5.7. Reference Area

The CPI measures the change in the average level of prices of goods and services at national level only.

The HICP refers to the economic territory of a country as referred to in paragraph 2.05 of Annex A to ESA 2010, with the exception that the extraterritorial enclaves situated within the boundaries of a Member State or a country are included and the territorial enclaves situated in the rest of the world are excluded.

## 5.8. Time Coverage

The CPI has been compiled in Ireland since 1922 and several disseminated tables in our PxStat dissemination database contain this full CPI data series. However, the latest CSO electronic release covers CPI from year 2015.

The HICP series started in January 1996.

## 5.9. Base period

The current base reference period for the CPI is December 2016=100. While the current base reference period for the HICP is 2015=100.

## 6. Unit of Measure

The following units are used:

- Index point
- Percentage change on the same period of the previous year (rates);
- Percentage change on the previous period (rates);
- Percentage share of the total (weights).

## 7. Reference Period

HICP is a monthly statistic. The latest release includes up to July 2022.



## 8. Institutional Mandate

### 8.1. Legal Acts and other agreements

#### 8.1.1. National legal acts

The CPI is compiled nationally under Statutory Instrument 313/2017 - Statistics (Consumer Price Survey) Order 2017 which refers to requirement for information to be supplied upon request.

More generally Article 29 of the Statistics Act 1993 empowers officers of statistics (e.g. price collectors) to enter premises as required. Article 29 reads as follows:

*29. –An officer of statistics may at all reasonable times, on production of his certificate of appointment if demanded, enter any premises for the purposes of–*

*(a) delivering a notice under section 26 of this Act, or*

*(b) delivering or collecting forms, questionnaires, records or information, or*

*(c) making any such inquiries as he is authorised to make under this Act.*

Article 29 covers the price collection in retail outlets. However, it does not cover the entirety of price collection for HICP e.g. phone and postal surveys managed centrally. We are, therefore, considering introducing specific legislation in order to translate the new EU HICP Framework Regulation into national law.

#### 8.1.2. European Legal acts

Harmonised Indices of Consumer Prices (HICPs) are harmonised inflation figures required under the Treaty on the Functioning of the EU. Council Regulation (European Commission (EC)) 2016/792 sets the legal basis for establishing a harmonised methodology for the compilation of the HICP and the HICP-CT.

This regulation is implemented by [Commission Regulation \(EU\) 2020/1148](#) of 31 July 2020.

Under this regulation, the EC has brought forward detailed regulations establishing the specific rules governing the production of harmonised indices. To date, 18 specific regulations governing issues such as quality of weights, transmission and dissemination of sub-indices, coverage of goods and services, geographical and population coverage, minimum standards for the treatment of tariffs, insurance, health, education and social protection services, timing of entering prices, treatment of price reductions, treatment of service charges, revisions policy, new index reference period, temporal coverage of price collection and sampling, replacement and quality adjustment procedures, seasonal items and HICPs at constant tax rates have been adopted.

Further methodological documentation, namely recommendations and guidelines, is available in Eurostat's HICP dedicated section, under '[Methodology](#)'.

### 8.2. Data Sharing

National authorities are obliged by law to grant access to administrative data for the purposes of price statistics. PART IV (Use of Records of Public Authorities for Statistical Purposes) of the Statistics Act 1993 provides the right of access, subject to some limitations and conditions, of the CSO to administrative records held by public authorities for statistical purposes.





## 9. Confidentiality

### 9.1. Confidentiality – policy

All information supplied to the CSO is treated as strictly confidential. The Statistics Act, 1993 sets stringent confidentiality standards: Information collected may be used only for statistical purposes, and no details that might be related to an identifiable person or business undertaking may be divulged to any other government department or body.

These national statistical confidentiality provisions are reinforced by the following EU legislation: Council Regulation (EC) No 223/2009 on European statistics for data collected for EU statistical purposes. Further details are outlined in the CSO's Code of Practice on Statistical Confidentiality.

For more information on the CSO confidentiality policy please visit:

<https://www.cso.ie/en/aboutus/lqdp/csodatapolicies/statisticalconfidentiality/>

### 9.2. Confidentiality – data treatment

All price data collected for the purpose of compiling the CPI and the HICP are treated as strictly confidential in accordance with Part V of the Statistics Act (1993). The data is not disclosed by the CSO to any other Government Department or outside body.

All data is disseminated according to Regulation (EC) No 223/2009 of the European Parliament and of the Council, of 11 March 2009, on the transmission of data subject to statistical confidentiality to the Statistical Office of the European Communities.

HICP data at ECOICOP 2-digit level is published nationally and is transmitted to Eurostat at ECOICOP 5-digit level. Individual or identifiable price data is not published.

## 10. Release Policy

### 10.1. Release Calendar

The date of dissemination of all statistics released by CSO can be found in the Release Calendar published in CSO.ie. This calendar is regularly updated.

In addition, a schedule of precise release dates for those statistics that are to be published by the CSO during the following week is issued each Thursday by e-mail to the media and all other interested parties. Both the advance quarterly release calendar and the weekly schedule of release dates can be accessed on the CSO website.

Eurostat's release calendar is publicly available and published at the end of the year for the full following year.

### 10.2. Release calendar access

The release calendar can be accessed via the CSO website, [www.cso.ie](http://www.cso.ie), or directly from this link:

<https://www.cso.ie/en/csolatestnews/releasecalendar/>

### 10.3. User access

In accordance with Principle 6 of the European Statistics Code of Practice all users of CSO statistics have equal access via the CSO website at the same time of 11 am. Any privileged pre-release access to any outside user is limited, controlled and publicised. In the event that leaks occur, pre-release arrangements are revised so as to ensure impartiality.



The CSO recognises that in very limited circumstances a business need for pre-release access may be substantiated. Any form of pre-release access is a privilege and a strict CSO pre-release access policy is adhered to for these special requests. The full pre-release access policy can be accessed at <https://www.cso.ie/en/aboutus/lqdp/csodatapolicies/csopolicyonpre-releaseaccess/>

The various results are published nationally in statistical release format as well as on the CSO website ([www.cso.ie](http://www.cso.ie)). Selected extracts from the results are posted on the CSO's data dissemination database, PxStat.

The CSO disseminates CPI/HICP data on the CSO website at 11am (local time) on the day of publication (see point 8.1).

The headline CPI/HICP figures are provided to senior officials in the Office of the Prime Minister, the Ministry of Finance and the Central Bank under embargo one hour before the release of the CPI/HICP publication.

HICP data is transmitted to Eurostat under embargo, if the national CPI publication (which contains HICP data) is scheduled to be published after the deadline for transmission of data to Eurostat.

## 11. Frequency of Dissemination

The CPI is compiled and published on a monthly basis.

## 12. Accessibility and clarity

### 12.1. News release

A monthly press release is issued in conjunction with the CPI statistical release. Current and historic press releases can be found in the CSO website via the following link <https://www.cso.ie/en/csolatestnews/pressreleases/>

### 12.2. Publications

A national electronic release, – “Consumer Price Index”, containing indices for the CPI and the HICP is published each month.

The monthly electronic “Consumer Price Index” release is available on the CSO website. <http://www.cso.ie/en/statistics/prices/consumerpriceindex/>

### 12.3. On-line database

Monthly and annual CPI and HICP data and historical CPI and HICP data are available on the CSO dissemination database PxStat directly from this link: <https://data.cso.ie/product/CPIM>

#### 12.3.1. AC 1. Data tables – consultations

In the period 01/01/2021 to 02/11/2021 the CPI releases were accessed a total of 69,080 times, out of which 33,789 were unique hits.

### 12.4. Micro-data Access

Not applicable.



## 12.5. Other

An interactive inflation calculator is available on the CSO website, allowing the user to enter start and end months and see how the cost of a basket of goods and services has changed between those months. The calculator can be accessed directly from this link:

<https://visual.cso.ie/?body=entity/cpicalculator>

Annual headline indices for the CPI and the HICP are published in the CSO's Statistical Yearbook of Ireland.

Background notes on the CPI and HICP are provided in the monthly release. Further methodology documents including the "Consumer Price Index Introduction of Updated Series (Base: December 2016=100)" are available on the CSO website.

Users can request more detailed sub-indices and special aggregates by phone, in writing, through the CSO's main Information Service or through the dedicated e-mail account for the CPI section ([cpi@cso.ie](mailto:cpi@cso.ie)).

In line with Euro area countries, from November 2019, the CSO has agreed to allow publication of the annual and monthly changes in the HICP All Items flash estimate on the Eurostat website going forward. The HICP flash estimate will not appear on the CSO website.

<http://ec.europa.eu/eurostat/web/hicp/overview>

HICP data for Ireland and all EU countries is available on the Eurostat website. Eurostat publish the flash estimate, usually on the last working day of the reference month, which is about two weeks in advance of the final HICP. Their news release contains the EuroArea aggregate for the All Items HICP and nine major sub-indices. Since September 2019, Eurostat's news release has also included a country table of annual and monthly changes in the HICP All Items flash estimate. More detailed HICP data for Ireland including special aggregates is available on Eurostat's website via their Statistics Database.

<http://ec.europa.eu/eurostat/web/hicp/data/main-tables>

### 12.5.1. AC2. Metadata consultations

Not calculated.

## 12.6. Documentation on Methodology

The HICP Methodological Manual provides the reference methodology for the production of HICP.

<https://ec.europa.eu/eurostat/web/products-manuals-and-guidelines/-/KS-GQ-17-015>

Additional CPI Survey and Methodology information is available on the CSO website.

<https://www.cso.ie/en/methods/prices/consumerpriceindex/>

<https://www.cso.ie/en/methods/prices/consumerpriceindex/methodologydocuments/>

<https://www.cso.ie/en/interactivezone/statisticsexplained/consumerpriceindex/>

### 12.6.1. Documentation on methodology – national specifics

At national level: HICP methodological notes are available with the monthly Consumer Price Index publication (background notes). A further detailed methodological description is available in the 'Consumer Price Index Introduction of Updated Series (Base: December 2011 = 100)' document which is available on the CSO website.

### 12.6.2. AC3 – Metadata completeness – rate

Not calculated.



## 12.7. Quality Documentation

The following list of reports have assessed the quality of the Irish HICP/CPI in recent years:

Eurostat: [Compliance Monitoring Report of 2010](#) and [follow-up report of 2020](#).

National: [Consumer Price Index Review Group Report March 2010](#)

National: [Standard Report on Methods & Quality for CPI/HICP April 2016](#)

## 13. Quality Management

### 13.1. Quality Assurance

#### Quality Management Framework

The CSO avails of an office wide Quality Management Framework (QMF). This framework allows all CSO processes and outputs to meet the required standard as set out in the European Statistics Code of Practice (ESCOP). The QMF foundations are based on establishing the UNECE's Generic Statistical Business Process Model (GSBPM) as the operating statistical production model to achieve a standardised approach to Quality Management. All and any changes implemented to CSO processes and outputs require adherence to the QMF.

Annexes:

<https://ec.europa.eu/eurostat/web/quality/european-quality-standards/european-statistics-code-of-practice> European Statistics Code of Practise

### 13.2. Quality Assessment

Eurostat has established a compliance monitoring system for the HICP with the aim to ensure the correct and harmonised implementation of the legal obligations and methodological recommendations in all Member States. See details on this system via the following link:

<https://ec.europa.eu/eurostat/documents/272892/272977/Compliance+Monitoring+description/>

Eurostat carried out a HICP compliance monitoring visit in May 2017 and published a report in September 2017. A follow up report was completed in early 2020. The last available compliance or follow-up report can be found in the dedicated HICP section 'Compliance Monitoring' of Eurostat's website, under 'Methodology'> 'Compliance Monitoring' <https://ec.europa.eu/eurostat/web/hicp/methodology/>

Price collectors have been suspended since March 2020 so no verification is taking place. Previous to these, audits were carried out in the field sporadically to ensure price collection was correct. All price changes are reviewed by office staff.

Each item relative is then reviewed to identify outliers.

#### 13.2.1. Quality assessment – national specifics

HICP concepts and methodology have been developed according to international standards and using consumer price statistics experience from all EU Member States. HICPs are considered to be sufficiently accurate for all practical purposes they are put into. In particular, it is the best measure of inflation for the euro area and the European Union as a whole as well as for the comparisons of inflation across countries for which it is compiled.

As with other member states, further work is ongoing to improve the quality of the index. Key priorities are the treatment of owner occupied housing (currently excluded) and greater harmonisation of methods for quality adjustment and sampling.



## 14. Relevance

### 14.1. User Needs

The CPI is compiled to meet national requirements and is the official measure of inflation in Ireland. The HICP is compiled to meet EU requirements. The HICPs of each member of the euro area are aggregated to calculate the Monetary Union Index of Consumer Prices (MUICP) which is the official measure of inflation in the euro area.

The purpose of the CPI at national level is to measure the change in the average level of prices of goods and services bought for the purpose of consumption by all private and institutional households in Ireland and by foreign tourists while on holiday within Ireland. The CPI is the official measure of inflation in Ireland. The uses of the CPI include economic analyses and indexation.

The main uses of the HICP are, firstly, for monetary policy purposes. The ECB defines price stability as a year-on-year increase of the HICP for the euro area of below, but close to, 2% over the medium term. Secondly, the change in consumer prices is one of the convergence criteria used to assess whether a member state is ready to join the euro area. In addition, HICPs are used for economic analyses and for indexation purposes.

The CPI and HICP data is used by the Department of Finance and other government departments and agencies, Central Bank of Ireland, ECB and other financial institutions, National Accounts and other sections within the CSO, Eurostat, economic analysts, researchers and academics, media commentators and the general public.

In addition to being a general measure of inflation, the HICP is also used in the areas of:

- wages, social benefit and contract indexation;
- economic forecasting and analysis;
- measuring specific price trends;
- accounting purposes and deflating other series;
- inflation targeting by central banks;
- cross-country economic comparisons.

#### 14.1.1. Main National Users

- Government Departments e.g. Department of Finance, Department of the Taoiseach (Prime Minister), Department of Public Expenditure & Reform, Department of Social Welfare, Revenue Commissioners use the data for national policy development.
- Central Bank of Ireland and other financial institutions use the data for monetary policy development.
- National Accounts and other sections in the CSO
- Eurostat (the statistical office of the EU)
- Economists, Analysts e.g. Economic & Social Research Institute (ESRI) and stockbrokers use the data as a general macroeconomic indicator.
- The Court System uses the data for indexation of court awards e.g. maintenance and disability payments
- Businesses use the data to help price their products.
- The general public use the data as a general measure of cost of living increases.

#### 14.1.2. Principal External Users

- European Commission (Eurostat) uses the data to meet legislative requirements.
- The European Central Bank (ECB) uses the data as the main indicator for monetary policy management
- The ECB and the European Commission's Directorate-General for Economic and Financial Affairs (DG ECFIN) use the HICP for assessing price stability and price convergence required for entry into European Monetary Union.



## 14.2. User Satisfaction

The National CPI Review Group was established to review the CPI and HICP. The group comprised of a number of key users from Government Departments, the Central Bank of Ireland, the Economic and Social Research Institute (ESRI), National Consumer Agency (NCA), representatives of the Social Partners (IBEC and ICTU) and independent economic analysts and commentators. The final report of this group is at <https://www.cso.ie/en/media/csoie/methods/consumerpriceindex/reviewgroupreportmarch10.pdf>

One of the recommendations from the National Consumer Price Index Review Group (March 2010) was Recommendation 18.

- The introduction of socioeconomic price indices (including income deciles/quartiles) is considered to be a priority and the CSO should carry out further research in this area.

## 14.3. Data Completeness

The full set of HICPs and HICP-CT at ECOICOP 5-digit level, are transmitted to Eurostat each month.

### 14.3.1. Data Completeness rate

100%

## 15. Accuracy and reliability

### 15.1. Overall accuracy

The accuracy of source data is monitored by assessing the methodological soundness of weight and price sources and the adherence to the methodological recommendations.

Local price collection (visits to local retailers and service providers) and central price collection (post, telephone, e-mail and the internet) are the data sources for prices. The items selected for pricing and the method selected for price collection reflect both consumer choice and behaviour. The type of survey and the price collection methods ensure sufficient coverage and timeliness.

### 15.2. Sampling Error

The CPI and HICP are subject to sampling errors because they are based on a sample of consumer prices and household expenditures, which are not the complete universe of all consumer prices and household expenditures.

Numerical estimates of the sampling errors are not produced for CPI or HICP. A sample of consumer prices is used that is as large as possible given time and resource constraints to try to reduce sampling errors.

#### 15.2.1. A1. Sampling error indicator

Not calculated.

### 15.3. Non-sampling Error

Non-sampling errors are not quantified. The CSO try to reduce non-sampling errors through continuous methodological improvements and survey processing improvements (e.g. a new Electronic Data Capture system was introduced by the CSO for local price collection in 2016).

#### 15.3.1. Coverage error

*Local price collection:* The register of retail outlets is primarily created by the price collectors. They select the most representative retail outlets in their pricing location. However, when appropriate, new retail outlets may be added to ensure ongoing representation. For example, the



Dundrum Shopping Centre was included in the sample at the time of its opening.

*Centralised price collection:* The register of service providers is created by the CPI headquarters staff. They select the most representative service providers to ensure that the sample is representative for the entire country. The sample of service providers is regularly reviewed. In cases where national pricing is relevant, the service provider is a central source in one location.

#### **15.3.1.1. Coverage error – population**

All target population is currently covered in the Irish HICP.

#### **15.3.1.2. Coverage error regions**

No geographical areas excluded from the sample frame.

#### **15.3.1.3. Coverage error outlet**

Temporary stall and markets not included in the sample currently

#### **15.3.1.4. A2. Over coverage rate**

Not applicable.

#### **15.3.1.5. A3. Common units – proportion**

Not applicable

### **15.3.2. Measurement error**

To minimise the impact of measurement errors different steps are taken depending on whether the collection is local or centralised.

#### ***Local price collection:***

*Field audits* - to check that price collections are carried out correctly, CPI personnel carry out monthly quality audits on individual local price collections. There are two types of quality audits: the first involves an auditor accompanying a price collector on a price collection. The second consists of audits, which take place no later than three days after the price collection (back check), where an auditor repeats the price collection to determine if the price collector has collected the correct prices. Price collectors do not know in advance which locations will be chosen for the quality control checks.

*Supervised visits* - an auditor who accompanies a price collector on a price collection examines the price collection to ensure that

- suitable products are chosen;
- the correct indicator codes are used;
- the correct prices are recorded;
- the prices are collected in the correct retail outlet type;
- the price is only recorded when the correct variety is available;
- any need for training of a price collector is identified, to help improve the quality of the price collection.

*Back check of price collection* - the back-check quality audit involves an auditor visiting the retail outlet where the price was recorded by the price collector, and checking to see that the price was correctly recorded. The back-check quality audit covers accuracy of price collection and other aspects (e.g. the quality of item descriptions and the use of indicator codes) which are important to sustain the comparability of price collection across months and to better inform CPI staff involved in the validation process.



#### ***Centralised price collection:***

New staff are trained upon appointment. The topics covered during training include selecting representative retail outlets/service providers and products, canvassing retail outlets/service providers, selecting replacement products, collecting data, data entry and edit checking of data.

Each survey form issued to service providers lists clearly the details of the representative service(s) along with the corresponding price(s) in the previous pricing period. A record is kept of all prices collected via telephone inquiries and via internet price collection.

#### **15.3.3. Non-Response Error**

If a particular product/service becomes unavailable, it is replaced by an alternative representative product/service. In a similar way, if a retail outlet/service provider becomes unavailable (e.g. closes down), it is replaced by another similar representative retail outlet/service provider.

A matched basket approach is applied. If a product/service is missing in the current month, it is excluded from the elementary aggregate calculation for both the current and the previous month.

If a new product/service (replacement) is introduced, it is excluded from the calculations until it is available for two consecutive months.

##### **15.3.3.1. Unit non-response rate**

Not calculated.

##### **15.3.3.2. Item non-response rate**

Not calculated.

#### **15.3.4. Processing error**

Data capture errors – Price collectors transmit the data entered on the EDC handheld devices to the CSO. The CPI headquarter staff scrutinise the data received from each price collector to ensure that any keying errors are identified (e.g. price incorrectly entered) and manually corrected. If necessary, CPI headquarters staff contact price collectors to obtain further information on price changes.

Coding errors – The classification system used is COICOP (see section 3.11). Each item in the CPI basket of goods and services is manually assigned to the relevant COICOP code when the items and weights of the items in the CPI basket are periodically updated (currently every 5 years).

#### **15.3.5. Model assumption error**

The substitution effect is a known statistical phenomenon common to CPIs and has the potential to cause bias. This effect can occur when the CPI basket of goods and services is not updated on a frequent basis. In such a scenario, the substitution effect occurs when consumers modify their selection of purchases e.g. from dearer to cheaper purchases. Despite continual changes in consumer tastes and preferences, 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 household purchasing patterns which permits the use of fixed weighting patterns in the compilation of the CPI. The expenditure weights are updated on an annual basis starting from the January 2012 index. While the basket of goods and services is updated every five years so that the basket continues to be representative of current household purchasing patterns. The five yearly full rebase minimises the substitution effect.





## 16. Timeliness and punctuality

### 16.1. Timeliness

CPI and HICP data are published nationally four weeks and two days following the second Tuesday of the reference month with the exception of the December and January data. The December data is published five weeks and two days following the second Tuesday of the reference month. The January data is usually published 5-6 weeks and two days following the second Tuesday of the reference month due to the annual updating of weights and/or five yearly full rebase.

Our publication policy is as follows:

- Always publish at least one day previous to Eurostat
- Publish as early as possible in the process but not later than 4 weeks and 2 days after pricing day for all months except February (January reference month).
- In February, publish as early as possible in the process but not later than 6 weeks after pricing day (due to annual updating of the weights and other annual methodological improvements)

The full set of HICPs at ECOICOP 5-digit level is transmitted each month to Eurostat after 11am on the day of publication of the national CPI. The data is transmitted to Eurostat under embargo, if the national CPI publication is scheduled to be published after the deadline for transmission of data to Eurostat.

At Eurostat level the full set of HICPs is published each month according to a pre-announced schedule, usually between 15 and 18 days after the end of the reference month. Each year, the January news release is published at the end of February to allow for the annual update of the weights of individual product groups and the relative country weights of Member States in the country-group aggregates.

The euro area flash estimate is published on the last working day of the reference month or shortly after that.

#### 16.1.1. TP1. Time lag – First results

Provisional results are not published for the CPI or the HICP.

#### 16.1.2. TP2. Time lag – Final results

Timeliness of released data at national level: T+ 4.5 weeks

Timeliness of the datasets transmitted to Eurostat:

- HICP Flash Estimate (T+0)
- HICP (T+15)
- HICP-CT (T+15)

### 16.2. Punctuality

Since the March 1997, launch of the HICP release, the HICP for the country groups aggregates has always been published on the pre-announced release dates.

The HICP data has been sent to Eurostat as per the deadlines and these deadlines have not been missed over the last 10 years. The national publication has also been published as per the pre-announced schedule.

#### 16.2.1. TP3. Punctuality – Punctuality - delivery and publication

0 days.



## 17. Comparability

### 17.1. Comparability – Geographical

National CPIs are usually not regarded as comparable for cross-country analysis as the scope, coverage and methodologies may vary.

For the EU, the HICPs provide comparable measures of inflation and are used for cross-country analysis. To this end, concepts and methods have been harmonised by means of legislation. HICPs that deviate from these concepts and methods are deemed comparable if they result in an index that is estimated to differ systematically by less than or equal to 0.1 percentage points on average over one year against the previous year (Article 4 of [Council and Parliament Regulation \(EU\) 2016/792](#)).

Due to the common methodology, the HICPs of the countries and European aggregates can be directly compared. Any differences at all levels of detail should only reflect differences in price changes or expenditure patterns.

#### 17.1.1. CCI. Asymmetry for mirror flow statistics

Not calculated.

### 17.2. Comparability over time

HICP data are considered to be comparable over time. There have been several improvements in methodology since HICP was introduced with the aim of improving reliability and comparability of the HICP. These changes may have introduced breaks in time series. However, back calculations under the newer standards were performed when appropriate basic data was available.

The items and the weights of the items within the CPI basket of goods and services can become unrepresentative over time. They are periodically updated (i.e. new base period every 5 years since November 1996) to ensure that they remain representative of current household expenditure patterns.

Series with different base periods can be linked together at the base reference month. For example, Series 1 from January 2002 to December 2006 (base: December 2001=100) links at December 2006 to Series 2 from January 2007 to December 2011 (base: December 2006=100).

This produces a continuous series over two base periods from January 2002 to December 2011.

Eleven different weighting bases have been used to date in the compilation of the CPI since the foundation of the State in 1922. The CPI was compiled on a quarterly basis up until the mid-November 1996 rebase during which the compilation of a monthly CPI was introduced. A national classification system was used for the CPI up until January 2002 when the international Classification of Individual Consumption by Purpose Adapted to the Needs of Harmonised Indices of Consumer Prices (COICOP/HICP) (2000) was introduced in conjunction with the mid-December 2001 rebase. The current base reference period is mid-December 2016=100 which was introduced in January 2017. The annual updating of CPI and HICP sub-index weights (i.e. 4-digit COICOP/HICP level) using National Accounts *Household Final Monetary Consumption Expenditure* (HFMCE) data as the primary data source was introduced with the January 2013 CPI and HICP indices

#### 17.2.1. Length of Comparable Time series

20 years for the HICP  
46 years for the CPI



### 17.3. Coherence – cross domain

An individual survey equivalent to the CPI is not carried out by any other organisation in Ireland. The staff in the CPI section analyse media reports to note upcoming price changes associated with items in the CPI basket of goods and services. Checks are performed to ensure that these price changes are reflected in the prices collected and as a result in the CPI.

#### Differences between the HICP and national CPI

The following expenditure is included in the national CPI but excluded from the HICP: mortgage interest, union subscriptions, motor car tax, motor cycle tax, building materials, motor car insurance (non-service), home insurance - contents (non-service) and home insurance - dwelling.

#### 17.3.1. Coherence – Sub annual and annual statistics

Not applicable.

#### 17.3.2. Coherence with National Accounts

Not applicable.

### 17.4. Coherence – internal

The HICPs are internally coherent. Higher level aggregations are derived from detailed indices according to well-defined procedures.

## 18. Cost and Burden

Estimates of Cost and Burden can be obtained from the Response Burden Barometer <https://www.cso.ie/en/statistics/multisectoral/responseburdenbarometer/>

Survey specific information is available via CSO's dissemination database PxStat. <https://data.cso.ie/product/RBB>

## 19. Data Revision

### 19.1. Data Revision Policy

Published statistics are subject to correction and revision for a variety of reasons. The most common reasons include the receipt of additional information (for example, late survey responses) and updated seasonal factors. Occasional revisions also occur as a result of changes to definitions, methodology, classifications and general updating of statistical series.

It is recognised internationally that the existence of a sound revisions policy maintains credibility in official statistics. The CSO General Revisions Policy, which details how revisions should be managed and communicated to users, outlines the three main types of revisions:

- Planned Routine Revisions
- Planned Major Revisions
- Unplanned Revisions.

One reason for unplanned revisions occurring can be when errors are detected after publication. The 'CSO Error Correction Policy – How to deal with Publication Errors' outlines the steps taken when these errors are detected. As required under Principle 6.3 of the European Statistics Code of Practice, errors detected in published statistics are corrected at the earliest possible date and users are informed. An important step in the process is the documentation and analysis of errors that have occurred and their causes. This allows the CSO to take measures preventing similar errors from occurring in the future and uniformity in dealing with them when they do.



The data revision policy that CSO statistics adheres to can be found via the following link:  
<https://www.cso.ie/en/methods/quality/treatmentofrevisions/>

## 19.2. Data Revision Practice

The national CPI is not subject to revision. HICP series, including back data, are revisable under the terms set in Articles 17-20 of Commission Implementing Regulation (EU) 2020/1148. The published HICP data may be revised for mistakes, new or improved information and changes in the system of harmonised rules. There have been no revisions of the HICP to date.

The HICP back data (HICP and HICP-CT) were revised marginally in 2016 due to the change in methodology for referencing the HICP data to 2015=100 (compared to 2005=100).

The national CPI has never been revised as per the revisions policy.

### 19.2.1. Data Revision – Average size

Not calculated.

## 20. Statistical processing

### 20.1. Source Data

Only CSO collected data is used in the compilation of the CPI/HICP.

#### 20.1.1. Population and sampling frame

While, the survey covers all retail outlets and service providers from which consumers can purchase any of the 615 representative items in the CPI basket of goods and services, representative retail outlets and service providers throughout the country are selected.

#### 20.1.2. Sampling design

##### *Local price collection*

There are four levels of sampling for local price collection: locations, retail outlets within locations, representative items within retail outlets and products and varieties.

*Sampling of locations:* purposive (or judgmental) sampling is applied, whereby Dublin and the regional cities (Cork, Limerick, Waterford and Galway) are automatically included in the sample while a sample of towns are selected with the constraining factor that each county in the State must be represented. As of December 2016, there are 84 cities and towns in the sample of locations.

##### *Sampling of retail outlets within locations:*

Purposive (or judgmental) sampling is applied to select the sample of retail outlets within a location (i.e. retail outlets are chosen which are the most popular). As the CPI is intended to reflect only price change, the sample of retail outlets remains the same for as long as possible during the life span of the series. However, when appropriate, new retail outlets or locations may be added, e.g. the Dundrum Shopping Centre was included in the sample at the time of its opening to ensure ongoing representation. The number of retail outlets in the CPI sample, as of December 2016, is in excess of 3,000.

##### *Sampling of representative items within retail outlets:*

The sample of items in the CPI basket of goods and services is selected following extensive research. The following sources of information are used: HBS results, reports from price collectors on developments in retail outlets, discussions with retailers, service providers and trade organisations, market research, trade magazines and media reports.



#### *Selection of products and varieties:*

For most goods, the selection of products and varieties within retail outlets is purposive (or judgmental). In each retail outlet, the price collectors choose one representative variety from all products matching the specification of each item to be priced in that retail outlet. To facilitate this, price collectors seek assistance from staff in the retail outlet. In practice, a wide variety of brands and products are sampled for each item across the different pricing locations. This gives a better representation of the price movements of the item in question, than would be realised if a single narrowly defined identical variety was priced in all pricing locations.

#### ***Centralised price collection***

There are three levels of sampling for centralised price collection: service providers, services and locations.

*Sampling of service providers:* purposive (or judgmental) sampling is applied to select representative service providers (e.g. those with the greatest market share).

*Sampling of services:* purposive (or judgmental) sampling is applied to select representative services with the assistance of the service provider. When canvassing initially takes place, each service provider is requested to identify representative service(s) that they provide to consumers to be priced for the CPI.

*Sampling of locations:* purposive (or judgmental) sampling is applied to select representative locations. In the case of some services, services providers are selected throughout the country (e.g. general practitioners, third level tuition). While in the case of other services, where national pricing exists (e.g. electricity, natural gas, health insurance) the service provider is a central source in one location.

#### **20.1.3. Survey size**

Each month, approximately 50,000 price quotations are collected directly. Another approximately 3,000 prices are collected centrally by the CSO on a monthly basis.

The HICP basket of goods and services contains 607 of the 615 items in the CPI basket. Prices for 478 of the 607 items are collected using local price collection, while prices for the remaining 129 items are collected using centralised price collection.

#### **20.1.4. Survey technique**

Two price collection methods are used: local and centralised as referred to in sampling design.

In the case of direct price collection, prices are collected from retail outlets by price collectors. While in the case of special inquiries, prices are mainly collected from service providers by CSO headquarters staff using postal, e-mail and telephone enquiries along with internet price collection.

## **20.2. Frequency of data collection**

Monthly.

## **20.3. Data Collection**

Each month, the CPI is compiled from prices collected for a “fixed basket” of representative goods and services. The total cost of the basket will change as the prices of individual items in the basket change. The CPI measures the change in the total cost of this “fixed basket” with reference to the base period (December 2016 = 100).

Since February 2010, prices are collected each month over a period of more than one working week. In general, prices for goods are collected by direct pricing operations (i.e. by price collectors from retail outlets) while prices for services are collected by “Special Inquiry” operations (i.e. by CPI headquarters staff from service providers). Over 48,000 prices are collected by direct pricing operations from retail outlets in cities and towns throughout the country. Approximately 3,000 prices are collected via Special



Inquiries (i.e. postal, e-mail and telephone inquiries along with internet price collection). For some services national pricing exists and prices are collected from central sources, while for other services, a sample of respondents is selected throughout the country.

Two price collection methods are used: local (i.e. direct price collection) and centralised (i.e. special inquiries).

*Local price collection:* prices are collected by approximately 80 price collectors in retail outlets in 84 locations around the country for 478 of the 615 items in the CPI basket of goods and services. Approximately 48,000 quotations are obtained by this method.

*Centralised price collection:* prices are collected centrally by the CSO for 137 of the 615 items in the CPI basket of goods and services. In practice, this involves the use of postal, e-mail and telephone enquiries along with internet price collection. Approximately 3,000 quotations are obtained by this method.

### **20.3.1. Type of Survey/Process**

The survey is a sample survey. Purposive (or judgemental) sampling is applied based on for example, knowledge of population, consumer tastes and purchasing practices and market share of retail outlets/service providers.

### **20.3.2. Questionnaire (including explanations)**

*Local price collection:*

Prices are recorded by price collectors using Electronic Data Capture (EDC) handheld devices. When price collectors initially select the product to price they record a detailed description of the product (e.g. size, brand, colour) to ensure that the product is uniquely identified. Each month, the price collector records the price of the product and any special features associated with the price recorded using indicator codes (e.g. sale, special offer).

*Centralised price collection:*

CPI headquarters staff carry out the centralised price collection.

Each special inquiry is essentially a unique survey with different methods of data collection. Each survey form issued to service providers lists clearly the details of the representative service(s) along with the corresponding price(s) in the previous pricing period. Similarly, a record is kept centrally of the details of the representative service(s) and corresponding price(s) collected via telephone inquiries and internet price collection to ensure that the same service(s) is priced each pricing period.

### **20.3.3. Survey Participation**

Participation by retail outlets and service providers is voluntary.

### **20.3.4. Data Capture**

*Local price collection:*

An experienced team of price collectors carry out the local price collection each month. Price collectors are trained by CPI headquarter staff upon appointment. The topics covered during training include selecting representative retail outlets/service providers and products, selecting replacement products, using indicator codes and using EDC handheld devices. Price collector discussion group meetings take place, as necessary, to discuss issues that arise relating to price collection, electronic handheld devices, rebasing etc.

Each price collector is provided with a list of the items that they are required to price on a monthly basis. This detailed list includes examples of the type of products that would be suitable under each item heading and the type of retail outlet to use for each item. Also further product details (e.g. quantity) are provided for a number of items i.e. NAP items. It is necessary for the price collector to record accurate price descriptions, prices, indicator codes etc.



Price collectors enter data (e.g. product specifications, price and special features using indicator codes) on EDC handheld devices. The data is encrypted and transmitted securely in electronic format to the CSO via the General Packet Radio Service (GPRS) network.

*Centralised price collection:* CPI headquarters staff manually enters data collected from service providers (via post, e-mail and telephone enquiries along with internet price collection) into Excel files.

## 20.4. Data Validation

### Coding

Unique codes are assigned to each item, retail outlet and service provider, pricing location and pricing area. These codes are used internally by CPI headquarters staff and by the editing and processing IT systems.

### Data Editing

Prices are collected together with detailed product/service description, retail outlet/service provider and indicator codes (e.g. sales, recovery from sales etc.).

For an item to be comparable, the brand, model, size, composition and quality must not change from one month to the next. In addition, the retail outlet/service provider where the item was surveyed must not change. Product/service descriptions are checked to ensure that suitable products/services have been selected. The retail outlet/service provider is also checked to ensure that suitable retail outlets/service providers have been selected. These checks ensure that each product is comparable to the corresponding product that was priced in the previous month.

The price recorded for each product/service is compared (i.e. validated) with the price for the same product/service from the same retail outlet/service provider in the previous month. Prices outside the specified price range are re-checked by CPI headquarters staff to determine whether or not they should be included in the compilation of the CPI for that month.

Indicator codes (e.g. sales, recovery from sales etc.) are used to assist CPI headquarters staff while editing the data. The indicator codes may vary from month to month and they are also checked to ensure that the correct indicator code has been used.

Checks are also carried out on price ratios for individual items (e.g. AAPs, NAPs and item relatives), elementary aggregates and higher levels of aggregation.

Any implausible or erroneous data highlighted after the above checks is validated by requesting confirmation from the price collector, retail outlet or service provider. If confirmation, is not received the price is removed from the calculations.

## 20.5. Data Compilation

The CPI is a Laspeyres-type or fixed base weight index.

The CPI is produced in stages, with indices obtained at each stage weighted together to give higher level indices. The table below shows how the data are combined together specifically within COICOP 01 - Food & Non-Alcoholic Beverages. A similar structure is applied for all other COICOP divisions. At the lowest level there are 615 item headings. These can be combined from 2017 into ECOICOP 5 groups (e.g. Bread) which are in turn combined into COICOP 4, 3 and 2- digit groups. Finally, the All Items CPI is the combination of all 615 item headings.

While the same hierarchical structure applies for all item headings, there are some differences in the calculation methodologies used at the lowest level. Specifically, different methodologies are used for the 478 directly priced item headings compared to the 137 special inquiries item headings.



All Items CPI	
COICOP (01)	
Food & Non Alcoholic Beverages	
COICOP 01.1	
Food	
COICOP 01.1.1. Breads and Cereals	
ECOICOP 01.1.1.2 Flour	ECOPICOP01.1.1.3 Bread
White self-rising Brown wholemeal	White sliced pan Brown sliced pan Etc

The index is calculated based on a “matched basket” approach whereby prices for a product must be available for two consecutive months to be included in the index calculation.

At the lowest level, different calculation methodologies are used for the 478 directly priced items compared to the 137 special inquires items. In the case of the 478 directly priced items, the country is divided into 5 pricing areas.

- Firstly, area average prices (AAPs) are calculated for the 5 pricing areas.
- Secondly, national average prices (NAPs) are calculated for each item.
- Thirdly, item relatives are calculated as the ratio of the NAP for the current month to the NAP for the previous month for each item.

In the case of the 137 special inquiries items, the item relatives are calculated directly. Item relatives are the “building blocks” of the CPI.

The HICP in Ireland is calculated from the same basic price data as the CPI and uses the same methodology both in compiling and aggregating the component price indices. However, it does differ from the CPI in terms of the coverage of goods and services and the treatment of insurances (i.e. home, health and motor). Eight items included in the CPI are outside the scope of the HICP or differ in respect of definition. The most significant single difference is the exclusion of mortgage interest, as owner-occupied housing is currently not included in the coverage of the HICP.

### 20.5.1. Imputation (for Non-Response or Incomplete Data Sets)

The CPI is intended to reflect only price change. If a particular product/service becomes unavailable, it is replaced by an alternative representative product/service. In a similar way, if a retail outlet/service provider becomes unavailable (e.g. closes down), it is replaced by another similar retail outlet/service provider.

A matched basket approach is applied. If a product/service is missing in the current month, it is excluded from the elementary aggregate calculation for both the current and the previous month.

If a new product/service (replacement) is introduced, it is excluded from the calculations until it is available for two consecutive months.

#### 20.5.1.1. A7. Imputation rate

Not calculated.

### 20.5.2. Grossing and Weighting

Each item in the basket is weighted. The weights reflect the relative importance of each item included in the basket and are based on the results of the Household Budget Survey (HBS) which captures information on household expenditure patterns. The current item weights are based on the results of the 2015/2016 HBS.





Prior to January 2013, the primary source of the CPI sub-index weights was the five yearly HBS. Since January 2013, the primary source of the CPI sub-index weights is National Accounts *Household Final Monetary Consumption Expenditure* (HFMCE) data. The CPI sub-index weights for year  $t$  will be updated on an annual basis each December using the National Accounts HFMCE data for year  $t-2$  and price updated to December  $t-1$ . For example, the CPI sub-index weights for year 2017 were updated using 2015 National Accounts HFMCE data and price updated to December 2016. This is required under Commission Regulation (EC) No 1114/2010 on minimum standards for the quality of HICP weightings. This methodological improvement to the HICP has also been applied to the CPI.

The expenditure weights were updated in December 2016 and were compiled using the results of the 2015/2016 HBS (Household Budget Survey).

The expenditure weights at sub-index (i.e. 4-digit COICOP/HICP) level are updated annually in December using National Accounts *Household Final Monetary Consumption Expenditure* (HFMCE) data for year  $t-2$ , price updated to December  $t-1$  as the primary source. The lower level "item" weights are recalculated on a pro rata basis using proportions from the December 2016 rebase.

The calculation of the CPI involves weighting together aggregated price indices for different categories of goods and services so that each takes its appropriate share within household budgets. For instance, as most people spend far more on electricity than on light bulbs, a price rise for electricity must have more of an effect on overall price rises than a similar-sized increase for light bulbs. At the lowest level therefore, each elementary aggregate should receive a weight equal to the proportion of total expenditure by households on goods and services represented by that aggregate.

A full rebase took place in December 2016. The 2015/2016 HBS data was the primary source of the weights. The 2015/2016 HBS provided information on the expenditure patterns of private households based on a representative sample of around 6,800 households. A number of adjustments were made to the HBS data including adjustments for the understatement of alcohol, tobacco and tourism expenditure (i.e. package holidays, airfares and boat fares) and the inclusion of expenditure by foreign tourists in Ireland.

From January 2013, the CPI sub-index weights for year  $t$  are updated on an annual basis each December using National Accounts *Final Monetary Consumption Expenditure* (HFMCE) data for year  $t-2$ , price updated to December  $t-1$ . For example, the CPI sub-index weights for year 2014 were updated using 2012 National Accounts HFMCE data, price updated to December 2013. The CPI item weights are subsequently recalculated on a pro rata basis using proportions from the December 2016 rebase.

The area weights which are used in the compilation of the NAPs were calculated using HBS data on average household expenditure by NUTS 3 region and Quarterly National Household Survey (QNHS) estimates of population by NUTS 3 region.

## 20.6. Adjustment

Not applicable.

### 20.6.1. Seasonal Adjustment

Not applicable.

## 21. Comment

Households were unable to consume many goods and services throughout the Covid pandemic. In addition to this, due to the closure of some outlets, household consumption for many other goods and services was significantly reduced. Central price collection during pandemic was completed successfully by office-based staff, with minor exceptions, using the usual data collection methods. Since April 2020, due to the restrictions on movement imposed during the COVID-19 pandemic, the CSO was not able to send price collectors into retail outlets to collect information for the CPI for an extended period.



The CSO sustained the following contingency measures to collect CPI price data for as an alternative:

1. Price information was collected from websites and the CSO engaged with large retailers that provided price data to replace the price information which was previously collected in-store by the price collectors. The CSO maximised the price collection from these alternative sources to the greatest extent possible and ensured that the information used for the CPI was comparable.
2. The CSO engaged with companies and sole traders that normally provide price information in specific sectoral surveys i.e. mainly in services.
3. Price change was imputed for items in the basket where consumption had not recommenced, or it was not possible to collect reliable price information.

As of 2023, a reduced number of price collectors have returned to stores to collect prices and these prices are supplemented by the new data sources that were implemented during the Covid-19 Pandemic.

The main imputation method used was “nearest aggregate estimation”, where the price development of a similar available product or service was used to estimate price change. For package holidays, the seasonal nature of these items was taken into consideration when imputing a price change. For other product groups such as theatres, prices were carried forward from previous month.

Given that the aggregation weights must remain fixed, it is necessary to impute the price change for product groups where (i) household consumption has ceased and transactions did not take place or (ii) it is not possible to collect prices. To ensure a harmonised approach to imputation across the EU, Eurostat published a guidance note on the compilation of the HICP in the context of the COVID-19 crisis. The Eurostat guidance was prepared in consultation with National Statistical Institutes (NSIs) including the CSO, and the CSO has implemented this guidance for the CPI and HICP.

[https://ec.europa.eu/eurostat/documents/10186/10693286/HICP\\_guidance.pdf](https://ec.europa.eu/eurostat/documents/10186/10693286/HICP_guidance.pdf)