

Portugal

A: Identification

Title of the CPI: Índice de Preços No Consumidor (Consumer Price Index)

Organisation responsible: Instituto Nacional de Estatística (Statistics Portugal)

Periodicity: Monthly

Price reference period: December year $t-1 = 100$

Index reference period: 2008 = 100

Weights reference period: December 2011

Main uses of CPI: Indexation of rents, contracts and/or other payments, deflate household expenditures in National Accounts, computation of purchasing power of households, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals and resident households of foreigners in the country.

Population groups excluded: Institutional households.

Consumption expenditure includes:

- Food consumed away from home;
- Housing maintenance, minor repairs;
- Purchase of gifts of goods and services given to others outside the household;
- Second hand goods purchased (second hand motorcars only);
- Financial services (including fees for financial advice, brokerage fees);
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- Licences and fees (e.g. driver's licence, hunting licence, vehicle registration);
- Gambling expenditure, gross of winnings

Consumption expenditure excludes:

- Foods produced for own final consumption;

- Other goods produced for own final consumption;
- Services produced for own final consumption;
- Income in-kind receipts of goods;
- Income in-kind receipts of services;
- In-kind goods received as gifts;
- In-kind services received as gifts;
- Purchase of owner-occupied housing;
- Mortgage repayments;
- Mortgage interest;
- Major repairs, conversions and extensions to owner occupied housing;
- Interest payments (excluding mortgage interest payments);
- Life insurance premiums;
- Investment-related expenditures (e.g. purchase of shares/stocks);
- Other business-related expenditures;
- Social transfers in-kind of goods and services from government and No-profit institutions serving households

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The aim of the CPI is to measure the change over time of the prices of consumer goods and services deemed to be representative of the resident households' final monetary consumption expenditure.

Definition of consumption expenditures: The definition of consumption expenditures used for the derivation of the weights is the 'household final monetary consumption expenditure' (HFMCE). The CPI covers the prices paid for goods and services in monetary transactions. The prices measured are those actually faced by consumers.

Classification: COICOP (Classification of individual consumption by purpose)

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys, national accounts, specific data sources are also used in the annual redefinition of the goods and services sample and index weights (e.g. administrative data on medicines, tobacco and fuel sales, new and used cars, tolls, motorcycles, telecommunication services).

Frequency of weight updates: Annual

Price updating of weight reference period to the index reference period: Every year the weights are price updated to December t-1. Depending on the availability and reliability of expenditure data, other than HBS, the detailed weights for some specific item categories are annually updated.

Weights for different population groups or regions: The CPI includes weights for seven regions (NUTs 2).

D: Sample design

Sampling methods:

Localities: Cut-off sampling (the elements with the highest sales or value of other auxiliary variable are included into the sample)

Outlets: Quota sampling (a priori fixing of the number of elements)

Products: Cut-off sampling (the elements with the highest sales or value of other auxiliary variable are included into the sample)

Frequency of sample updates:

Localities: The sample of localities is updated at the time of updating the index base period.

Outlets: Continuous (on a rotating basis)

Products: Annual

If sample updates are irregular indicate when last updates were introduced: 2008

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: The selection of localities is based on the following elements: i) population at the municipal level; ii) data collected from the Interbank Service Company on the volume of debit card payments on retail stores; iii) data on the disposable income of the households and on the Gross Value Added by NUTs2. The results are cross checked with those of the municipalities' purchasing power index compiled by Statistics Portugal. Additionally, information provided by the data collection department / regional offices is taken into account, namely the availability of outlets, in order to guarantee in each locality a regular price collection. An adequate geographical distribution is assured (urban and rural, touristic and non-touristic, areas are taken into account). In order to reduce the sampling errors samples that are very large taking into account the economic dimension of the country. For the computation of the Portuguese CPI on average 143700 prices are observed monthly, from around 14,500 retail outlets throughout the country. Statistics Portugal applies a model that optimises the allocation of resources by indicating the number of prices that should be observed in each geographic area in order to minimize the variance of the all items index.

The type of survey and the price collection methods ensure sufficient coverage. The outlets, from which prices are collected, are chosen to represent the existing trade and services network and they are based usually on three main criteria: i) popularity with consumers; ii) significant turnover from consumer sales and iii) availability of goods and services included in the CPI basket.

The selection of products is mainly based on the results of the HBS. The market brands and the characteristics of the products are the result of market research. The index is chained annually, allowing for new goods and services to be brought in at the end of each year using data sources other than the HBS and information provided by price collectors.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: The specifications of the representative items for many

elementary aggregates are sufficiently broader to allow that prices are indeed collected. At a second level, the price collector has to choose the variety of the product for which the price will be collected and has to describe its relevant characteristics. Price collectors are instructed to price the most representative variety. The final decision on the inclusion of the observed price belongs, however, to the regional office. These decisions are taken by checking if the choice of the price collector is within the boundary of the specifications for each elementary aggregate.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 43, Outlets: 14,500, Price observations: 143,700

Frequency with which prices are collected: Most prices are collected on a monthly basis. Products whose prices change marginally in the short run are collected every three months, on a rotation basis, meaning that in each month one third of the sample is collected. None processed food items, such as fruits, vegetables and fish, whose price changes may be substantial in the short run, are collected twice or three times per month, in different weeks. Prices for fuels are collected every day. Prices are collected on a yearly basis for those products that change typically once a year (e.g. education fees, social protection, public hospital services, road worthiness test).

Reference period for data collection: Since January 2007, price collection takes place across at least one working week period at, or near, the middle of the calendar month to which the index pertains. Where products are known to typically show sharp and irregular price changes within the same month, prices are collected over a period of more than one working week. This rule applies in particular for energy products and fresh food, such as fruit and vegetables. For some specific and more complex services (e.g. air travel) prices are collected prior to the use of those services, two and one month before and in the reference month, always in the same day of the week and for the same predefined period. An average of the three prices (combining internet price collection, prices collected in travel agencies and prices collected directly in the airlines) is then taken into account in the CPI compilation. For CD's, DVD's, computer games and books an average of the top sales prices is considered.

Methods of Price Collection

- Personal data collection for most of the items.
- Telephone interviews for rents.
- Internet for water supply, refuse and sewerage collection, some public transport services, fuels, air travel, accommodation services, postal services, telecommunications, insurance, financial services.
- Official tariffs for water supply, refuse and sewerage collection, electricity and natural gas (regulated market), public passenger transport, bridge tolls, motorway tolls, road worthiness test, hospital fees, public university fees, museums, justice fees, social funeral services and some administrative documents, among others.

- Email for university fees.

Treatment of:

Discounts and sales prices: Discounts and sales prices are treated like regular observations given that four conditions are verified: i) discounts and reductions can be related to the acquisition of a single good or service; ii) the sales prices and discounts are accessible to all potential buyers and there's no discrimination or qualification between buyers iii) the relevant discounts and sales prices are fully known to the buyer when the purchase occurs and iv) the discount or sale price must be granted or made available in the moment the purchase occurs or soon thereafter so that there's no doubt that the discount or sale price had a significant influence on the amount the consumer would be willing to purchase of the good or service.

Second hand purchases: Included for second-hand motor cars only.

Missing or faulty prices: Missing prices are treated by extrapolation of the change of other prices for the same item. The relevant prices for the extrapolation are those collected in the same geographical area.

Period for allowing imputed missing prices: The imputation due to a missing price is allowed twice for prices collected on a monthly basis and only once for prices collected on a quarterly basis.

Disappearance of a given type or quality from the market: As soon as it is known that a missing product will not be available again, it is replaced. Replacements are made according to product characteristics and representativeness.

Quality differences: If the quality differences are minor direct price comparison is applied. Bridged overlap is the main quality adjustment method applied. Less frequently option prices approach is also used.

Appearance of new items: Every year, Statistics Portugal identifies newly significant goods and services through a judgmental process involving price collectors, supervisors, regional offices and central office. Newly significant goods are in most cases annually included in the index as new elementary aggregates.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Clothing products are treated using Counter-Seasonal Estimation and footwear products using All-Seasonal Estimation. The typical price for the first out-of-season month is the price of the first in-season month. Other seasonal products, such as fruits and vegetables, are treated using All-Seasonal Estimation (ASE). The typical price for the first out-of-season month is the price of the last in-season month.

Seasonal food items: Seasonal food items are included in the CPI using fixed weights approach: the weights are kept constant over the year, while prices of out-of season products are estimated or imputed.

Seasonal Clothing: Seasonal clothing items are included in the CPI using fixed weights approach: the weights are kept constant over the year, while prices of out-of season products are estimated or imputed.

Method to impute the price of seasonal items: Prices are imputed by using price development of in-season products.

Treatment of housing

Treatment of owner-occupied housing: Owner occupied housing is not included in the index as it is an asset and not consumption good.

Types of dwellings covered by the rent data: The rents survey is carried out on a monthly basis. Data is collected by direct interview (first contact) and by phone interview (when the rent is updated). Houses and flats are the type of dwellings covered. This survey is currently being updated, taking into account the results from the 2011 Census and the expected changes in the rents legislation.

F: Computation

Formula used for calculation of elementary indices: The ratio of geometric mean prices (Jevons index) (Chained form)

Formula to aggregate elementary indices to higher level indices: Higher level indices are obtained through a weighted mean of the elementary indices.

Formula of aggregating regional/population group indices into national index: The national index corresponds to a weighted mean of the regional indices.

Monthly and annual average prices: Monthly average prices are calculated as a weighted average of the prices collected in the localities in each region. The average price of a product in a locality is a result of the geometric mean of the prices collected in each outlet in that locality.

Seasonally adjusted indices: No seasonal adjustment.

Software used for calculating the CPI: Software includes Oracle and Visual Basic.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Quality assurance is performed at the relevant levels of the organization. At regional level, there is ongoing contact between the regional delegates and supervisors and between price collectors and supervisors. Written documentation with guidelines is regularly provided by central coordination and immediately incorporated into field work. Regular meetings between central coordination and regional delegates, supervisors and price collectors take place every year. Statistics Portugal tries to reduce non-sampling errors through continuous methodological improvements and survey process improvements such as computer assisted price collection, which can help avoiding coding and typing errors.

Control procedures used to ensure the quality of data processed: The control and quality assessment is ensured through the supervision of Eurostat to the procedures of the Harmonized Consumer Price Index (HICP) which is an indicator that is derived from the Portuguese CPI. Member States must compile HICPs in compliance with HICP methodological requirements and good practices in the field of consumer price indices. In order to achieve this aim, Eurostat undertakes compliance monitoring visits to Member States with the aim to review HICP methodological issues. The last compliance monitoring visit to Statistics Portugal took place in December 2009 and the report was released in September 2010. The results are cross-checked with other statistics, such as production and imports prices, data on indirect taxes and data from other data sources

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI data is published on the 8th working day after the end of the reference month.

Level of detailed CPI published

Online: All items CPI, Division-level (12 Divisions), Group-level app. 40 groups, Class-level (100 classes)

Restricted Access: Basic items, Average prices

Separate indices published for specific population groups: No

Type of products for which average prices are calculated and disseminated: Presently average prices are not disseminated. However, due to historical reasons, there are a few exceptions, namely average prices for food products that are provided under request to some international organizations such as ICCO and ILO. Detailed prices have also been provided to Eurostat under a pilot study on Multipurpose Consumer Price Statistics.

Documentation

Publications and websites where indices can be found: Statistics Portugal publishes a monthly press release called “Destaque” in which the latest indices and rates of change can be found. A small version in English is also available. These notes are published on www.ine.pt.

Publications and websites where methodological information can be found: CPI 2008 = 100 methodology can be found at <http://metaweb.ine.pt/sim/operacoes/Pesquisa.aspx> under the theme “Prices”. The document is available in Portuguese only.

I: Other Information

Reported by the country in 2012.