

Romania

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: National Institute of Statistics, Bucharest

Periodicity: Monthly

Price reference period: Year $t-2 = 100$

Index reference period: Previous month = 100, Previous December = 100, same month of previous year = 100

Weights reference period: 2010. The weights for the 2012 CPI are based on average expenditures of the $t-2$ (2010) year.

Main uses of CPI: Indexation of wages, pensions and/or social security payment, indexation of rents, contracts and/or other payments, main inflation indicator used for monetary policy, 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: Main cities/metropolitan areas/regions

Population coverage: Resident households of nationals.

Population groups excluded: Institutional households.

Consumption expenditure includes:

- Food consumed away from home;
- Housing maintenance, minor repairs;
- Second hand goods purchased (second hand motorcars only);
- 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)

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;
- Purchase of gifts of goods and services given to others outside the household;
- Luxury goods;
- Financial services (including fees for financial advice, brokerage fees);
- Interest payments (excluding mortgage interest payments);
- Life insurance premiums;
- Gambling expenditure, gross of winnings;
- Investment-related expenditures (e.g. purchase of shares/stocks);
- Occupational expenditures;
- Other business-related expenditures;
- Social transfers in-kind of goods and services from government and No-profit institutions serving households;
- Expenditures abroad

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: Consumer price index measures the evolution of prices for goods bought and for tariffs of services used by the population in a certain period (current period), as against previous period (base or reference period). Consumer price index is calculated only for elements entering the population direct consumption, excluding: consumption from own resources, expenditures for investments and accumulation, interests paid for credits, insurance rates, fines, taxes etc., as well as expenditures paid for agricultural production of individual households – for a fixed market basket.

Definition of consumption expenditures: The consumption expenditures used for derivation of the weights result from the structure of monthly average expenditures of a household for the purchase of goods (food and non-food) and the payment of services that is necessary for meeting the living needs.

Classification: COICOP (Classification of individual consumption by purpose)

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Annual

Price updating of weight reference period to the index reference period: Beginning with January 2012, the monthly indices with fixed base are calculated using the average prices of 2010 (2010 = 100) and the weights of the same year resulting from the average expenditure

identified by the Household Budget Survey. Therefore there is no need to price update the weights.

Weights for different population groups or regions: Weights for some groups of population are computed.

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

Products: Judgmental sampling, 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: Annual

Outlets: Annual

Products: Annual

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: The samples of localities, outlets, goods and services are established using the representativity criterion.

The item varieties in the outlets included in the sample are selected on the basis of information about the volume of goods sold and services rendered as well as the number of inhabitants in these areas.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 42, Outlets: 7,100, Price observations: 97,000

Frequency with which prices are collected: Every ten days, except for computers-monthly.

Reference period for data collection: The reference periods for price collection are the 1st – 7th, 10th – 17th, 21st – 27th dates of each month.

Methods of Price Collection

- Personal data collection for all items, except the official tariffs

- Internet for mobile telephone services, desktop computers.
- Official tariffs for electric energy, railway, air and river transport, mail and courier services, radio-TV, newspapers, bank services, rent established by local authority, fix telephone services.

Treatment of:

Discounts and sales prices: Included in the index if: i) they are available to all potential consumers with no special conditions attached; ii) the outlet which has the reduced price is included in the sample; and iii) the price reduction applies during the price collection period.

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

Missing or faulty prices: For temporarily missing prices we estimate prices using changes of prices of the same product in neighbouring areas, or sometimes in the whole of the rest of the country.

Period for allowing imputed missing prices: Imputing for a missing price is allowed for a month or two. The replacements are made usually at the end of the year. For these and for new items prices are collected in December. December is the linking month. The replacement can be made also during the year if the old item disappears from the market. These are forced replacements.

Disappearance of a given type or quality from the market: If an item ceases to be available, a replacement is selected, based on the advice of the regional collectors. If the old and new items were both available in some period the ratio of these overlap prices are used to link the series. On the other hand, if the prices for the two items are not available in the same period, the group index is used to link them together.

Quality differences: The general procedure when there is a change in the product priced is as follows: the replacement is selected to be of the same quality and direct price comparison is used; if this is not possible and there is clearly a quality change, overlap is preferred. In rare cases other methods may be used - for example, production-cost adjustment and the 50% option pricing.

Appearance of new items: Introducing the new goods and services items is made in the beginning of the year, before the next weight update, when weights become significant (1 part per 1000 of total).

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: For seasonal items prices are collected when the item is sold in sufficient quantities; procedures for handling seasonal items when temporally not available are: for fruit and vegetables items out of season, the latest season price is corrected by the rate of price change for all available products belonging to the relevant basic heading.

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 CPI

Types of dwellings covered by the rent data: Furnished room in block of flats, unfurnished room in block of flats, furnished room in house and unfurnished room in house. Tariff for social rents is collected from administrative sources. For other items data are collected by statistical staff, every ten days.

F: Computation

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

Formula to aggregate elementary indices to higher level indices: A Laspeyres-type index formula is used:

$$L_{10} = \sum I_{10} \left(\frac{p_0 q_0}{\sum p_0 q_0} \right)$$

L_{10} = aggregate index of the current month (l) of year t (2012) as against the reference (base) year, $t-2$ (2010);

I_{10} = current month indices as against the base year (2010) average by aggregation steps;

$\frac{p_0 q_0}{\sum p_0 q_0}$ = weights related to aggregation steps (relative significance of average monthly expenditure by household in base year (2010)).

Monthly and annual average prices: Geometric means are used.

Software used for calculating the CPI: Fox Pro

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: At the local level, only the price information is checked using a computer program which identifies: errors, when the codes are not included in the samples (items or outlets) or warnings, when the price changes are outside predefined limits (+/-25 % of current price compared with previous month and last December prices).

Control procedures used to ensure the quality of data processed: Price information locally collected is loaded into the database after integrity control. The specialized program prints out indicators related to prices and indices at the country level as follows: minimum, maximum, geometric mean, standard deviation and variation coefficients for prices and indices. These indicators are analyzed and the outliers and replacements are identified. Questions are raised with the regions many times each month. Preliminary index results are carried out and different procedures for quality adjustment and treatment of missing prices are applied.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The first (monthly press release) publication of the index is made approximately 12 days after the end of the reference month.

Level of detailed CPI published

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

Online: All items CPI, Division-level (12 Divisions), Class-level (100 classes)

Documentation

Publications and websites where indices can be found: Prices and Monthly Statistical Bulletin (in Romanian and English), Statistical Yearbook, (NIS, in Romanian and English), National Institute of Statistics (NIS), Internet website: <http://www.insse.ro>

Publications and websites where methodological information can be found: Prices and Monthly Statistical Bulletin (in Romanian and English), Statistical Yearbook, (NIS, in Romanian and English), National Institute of Statistics (NIS), Internet website: <http://www.insse.ro>

I: Other Information

Reported by the country in 2012.