

South Africa

A: Identification

Title of the CPI: Consumer Price Index (P0141)

Organisation responsible: Statistics South Africa (Stats SA)

Periodicity: Monthly

Price reference period: 2008

Index reference period: 2008

Weights reference period: 2005 – 2006

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: 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;
- Mortgage repayments;
- 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);
- Luxury goods;
- 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 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);
- 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: The CPI is a current social and economic indicator that is constructed to measure changes over time in the general level of prices of consumer goods and services that households acquire, use, or pay for. The index aims to measure the change in consumer prices over time. The index also aims to measure the effects of price changes on the cost of achieving a constant standard of living.

Definition of consumption expenditures: Expenditure on goods and services acquired and privately used by household members, including imputed values for items produced and consumed by the household itself. Expenditure data for goods are defined in terms of “acquisition” and those for services in terms of “payment”

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: Every 3-5 years

Price updating of weight reference period to the index reference period: No

Weights for different population groups or regions: Weights are calculated for five expenditure quintiles, primary urban areas, secondary urban areas, rural areas and per province.

D: Sample design

Sampling methods:

Localities: Areas are selected based on employment figures, income and number of chain stores in the area

Outlets: Judgmental sampling

Products: Stratified sampling with PPS sampling in each stratum, 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: Every five years

Outlets: Every five years

Products: Annual

If sample updates are irregular indicate when last updates were introduced: 2010

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Optimal sample size and coverage – Neymann allocation approach

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Representative item method (follows following criteria): i) variety with most shelf space; ii) variety with best quality; iii) ensure continuous availability; and iv) select the (if a decision cannot be made between two or more options) cheapest item

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 27, Outlets: 2,700, Price observations: 65,000

Frequency with which prices are collected: Most commodities are collected monthly or quarterly. Services are collected quarterly or annually.

Reference period for data collection: Monthly items – First three weeks of the month; Quarterly – last month of the quarter, rental survey spread over the three months of the quarter; Annually – same month each year.

Methods of Price Collection

- Personal data collection for commodities plus taxi fares
- Mailed questionnaires for services
- Telephone interviews for services.

- Internet for services.
- Official tariffs for services.

Treatment of:

Discounts and sales prices: Included but clearance sales are excluded

Black market prices: Not collected.

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

Missing or faulty prices: Missing prices on elementary index level are imputed.

Period for allowing imputed missing prices: A missing price is imputed for 3 months, after which an item with the same characteristics has to be found.

Disappearance of a given type or quality from the market: Replacement can be done with the same characteristics, different variety or models are allowed

Quality differences: No quality adjustment is made.

Appearance of new items: New items are included at the time of updating the basket of goods and services.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Seasonal fruit and vegetables not included in basket. Clothing items are replaced when on clearance sale.

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: Impute the price by using price development of in-season products.

Treatment of housing

Treatment of owner-occupied housing: Price changes in the rental market are used for owner occupied housing.

Types of dwellings covered by the rent data: Houses, flats and town houses. Data is collected quarterly from rental agencies by means of price collectors.

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:

$$I^{0:t} = \sum w_i^b I_i^{0:t}, \sum w_i^b = 1$$

where $I^{0:t}$ denotes the overall CPI, or any high-level index, from period 0 to t ; w_i^b is the weight attached to each of the elementary price indices; and $I_i^{0:t}$ is the corresponding elementary price index. The elementary indices are identified by the subscript i , whereas the higher-level index carries no subscript. The weights are derived in period b

Formula of aggregating regional/population group indices into national index: The same procedure is followed as to calculate the higher level indices

Monthly and annual average prices: Monthly average prices are calculated per product per item package size (1kg, 500g, etc.). An arithmetic average is used.

Seasonally adjusted indices: No

Software used for calculating the CPI: Data are captured using VB.net with Visual Studio 2005 on SQL 2005 database. Editing and compilation are done using SAS.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Price collector supervisors in each survey area have to do follow ups on outstanding prices and check the quality of the data collected.

Control procedures used to ensure the quality of data processed: Captured data goes through a three phased edit process, of validation edits, logical edits, consistency and range edits.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI is published within three weeks from 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

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

Restricted Access: Class-level (100 classes), Basic items, Average prices

Separate indices published for specific population groups: No

Type of products for which average prices are calculated and disseminated: All commodities

Documentation

Publications and websites where indices can be found: Consumer Price Index (P0141)
www.statssa.gov.za

Publications and websites where methodological information can be found: The South African CPI sources and methods manual available at www.statssa.gov.za

I: Other Information

Reported by the country in 2012.