

Singapore

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Singapore Department of Statistics

Periodicity: Monthly

Price reference period: 2009 = 100

Index reference period: 2009 = 100

Weights reference period: 2009

Main uses of CPI: Main inflation indicator used for monetary policy and deflate household expenditures in National Accounts.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Population groups excluded: Institutional households and one-person households (11%).

Consumption expenditure includes:

- Foods produced for own final consumption;
- Other goods produced for own final consumption;
- Services produced for own final consumption;
- Food consumed away from home;
- Income in-kind receipts of goods;
- Income in-kind receipts of services;
- In-kind goods received as gifts;
- In-kind services received as gifts;
- Housing maintenance, minor repairs;
- 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;

- Social transfers in-kind of goods and services from government and No-profit institutions serving households;
- Expenditures abroad

Consumption expenditure excludes:

- 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;
- Interest payments (excluding mortgage interest payments);
- Life insurance premiums;
- Investment-related expenditures (e.g. purchase of shares/stocks);
- Occupational expenditures;
- Second hand goods purchased;
- Other business-related expenditures

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The CPI measures the change in the price of a fixed basket of goods and services commonly purchased by the majority of the households over time. The methodology used in the compilation of CPI in Singapore complies closely with the recommendations given in the “Consumer Price Index Manual” by the International Labour Organisation (ILO) as well as other countries’ best practices.

Classification: As used in Singapore’s classification of expenditure items.

Weights include value of consumption from own production: Yes

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: The weights for the current series are derived from the results of the Household Expenditure Survey (conducted between October 1997 and September 2008) and updated to the 2009 price level by taking into account the price changes between the two periods.

Weights for different population groups or regions: Weights are compiled for households in the lowest 20%, middle 60% and highest 20% income groups.

D: Sample design

Sampling methods:

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

Products: Judgmental sampling, retailers' recommendation on the popular brands/varieties

Frequency of sample updates:

Localities: Once in 5 years or earlier as and when required

Outlets: Once in 5 years or earlier as and when required

Products: Once in 5 years or earlier as and when required

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Item selection is based on items' weights which are derived from the consumption expenditure of the resident households. Products/varieties with significant market share are selected based on observation and retailers' recommendations. Retail outlets with high sales turnover and commonly patronized by resident households are selected.

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 4,200, Price observations: 6,500 brands

Frequency with which prices are collected: Prices of perishable food items which are more volatile are collected weekly. Most prices are collected monthly, while items with more stable prices are surveyed quarterly, half-yearly or annually.

Reference period for data collection: Generally, prices are collected in the middle of the month. Monthly prices for perishable food items are calculated by taking an average of the weekly prices collected.

Methods of Price Collection

- Personal data collection for perishable food and clothing items.
- Mailed questionnaires for all types of items.
- Telephone interviews for all types of items.
- Internet for items whose prices are available over the internet.
- Official tariffs for utilities charges.

Treatment of:

Discounts and sales prices: Unconditional discounts are reflected; price reductions due to shop-soiled, rejected goods, clearance of goods and odd sizes are excluded.

Black market prices: Not included

Second hand purchases: Not included.

Missing or faulty prices: If a product is temporarily unavailable, its price change is assumed to be the same as that of other similar products. If the product is permanently unavailable, a closest substitute will be sourced to replace it.

Period for allowing imputed missing prices: Imputed prices are allowed for a period of 3 months.

Disappearance of a given type or quality from the market: Once an item is confirmed to be unavailable permanently, immediate replacement may be made. Replacement is made based on the product most similar to the one which has disappeared. Price collectors select a product with significant market share and where possible with the same quality (quality in terms of previous product's characteristics; price collectors consult retailers on these issues).

Quality differences: Prices are adjusted to remove the effect of quality changes, whenever possible.

Appearance of new items: New products are added as and when the old ones are phased out.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Seasonal items (such as seasonal fruits) are excluded.

Treatment of housing

Treatment of owner-occupied housing: Owner occupied housing is treated based on rental equivalence.

Types of dwellings covered by the rent data: The types of dwellings include apartments, condominiums, terrace houses, semi-detached houses and bungalows. Rental data are obtained from administrative sources on a monthly basis.

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: Base-weighted Laspeyre's formula.

Monthly and annual average prices: Monthly average prices are calculated using arithmetic or geometric mean prices, depending on the availability of weights. Annual average prices are calculated by taking a simple average of 12 months' average prices.

Seasonally adjusted indices: The data series on CPI and its major components are seasonally-adjusted using the X12 procedure.

Software used for calculating the CPI: In-house developed software.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Price collectors provide reasons for large variations; weekly discussions are held among price collectors to ascertain price trends of perishable food items.

Control procedures used to ensure the quality of data processed: Checks in in-house developed software are made to detect items with large price variations.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI data is published on the 23rd day after the end of the reference month, or on the following working day if the 23rd falls on a Saturday, Sunday or a public holiday.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions), Group-level app. 40 groups and Average prices

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

Separate indices published for specific population groups: CPIs for households in the lowest 20%, middle 60% and highest 20% income groups are also published once in 6 months

Type of products for which average prices are calculated and disseminated: Food products and petroleum related products & cigarettes.

Documentation

Publications and websites where indices can be found: The monthly CPI report. Internet website: <http://www.singstat.gov.sg/pubn/catalogue.html#prices>

Publications and websites where methodological information can be found: CPI methodological information can be found in the paper "The Rebasing of the Consumer Price Index (Base Year 2009=100)" available at:
<http://www.singstat.gov.sg/pubn/papers/economy/ip-e36.pdf>

I: Other Information

Reported by the country in 2012.