Afghanistan

A: Identification

Title of the CPI: National Consumer price Index
Organisation responsible: Central Statistics Office
Periodicity: Monthly
Index reference period: March 2004 = 100

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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide
Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The CPI is an average of change in prices of goods and services of the commodity basket.

Classification: COICOP (Classification of individual consumption by purpose) up to a five-digit level.

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

Weights for different population groups or regions: City weights are computed. The city weights are the population totals for each city including surrounding provinces. With some modifications, the Kabul consumer basket with its commodity composition and weights has been used in the other cities for the aggregation of items to expenditure groups and the overall index.

D: Sample design

Sampling methods:

Outlets: Judgmental sampling
Products: Judgmental sampling
Critera used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Outlet selection: For most items, three outlets are visited for each city. They are usually located in the central market or close to that area. The outlet types available in the major cities of Afghanistan are shops and street vendors located in markets as well as stores and service establishments located along shopping streets. For each item, a representative mix of outlets is selected reflecting the consumers’ preferences for them. The outlets selected are two market shops and one street shop. And the shops selected are those that are heavily frequented by shoppers. The final selection of an outlet also depends on the results of the interview to be conducted with the shopkeeper. If the shopkeeper is cooperative and confirms that the outlet will not be closed down in the near future, and also offers a good selection of products, the outlet should be selected for regular monthly visits. However, if the shopkeeper becomes uncooperative over time, the field agent feels free to replace the shop with a similar one that has a friendlier shopkeeper.

Selection of varieties to be priced: With the help of the shopkeeper, the field agent looks for the specific variety of items that a) is a volume seller, b) is expected to be continuously available, and c) is easily recognizable for future pricing. Preference is given to a popular brand, quality, size and model.

E: Data Collection

Approximate number of localities, outlets and price observations: Price observations: 3,000

Frequency with which prices are collected: Prices are collected monthly.

Reference period for data collection: Prices are collected from markets and shops in the middle and low income areas between the 20th and 30th days of the solar month (10th-20th of the month).

Methods of Price Collection

- Personal data collection
- Official tariffs

Treatment of:

Discounts and sales prices: Sales prices and discounted prices are recorded, but only when they are available to all consumers.

Missing or faulty prices: If the item is temporarily missing (up to maximum one month for non-seasonal items and eight months for seasonal items), the space for the price will be left blank except for the entering of the C code. The price will then be imputed at the office on the basis of changes in the prices of available items of the same product group and it will appear in the form for the coming month as data for the previous month. This will allow for self-correction when the item reappears.

Period for allowing imputed missing prices: One month

Disappearance of a given type or quality from the market: If the item has been discontinued (or has not reappeared after one month), a substitute is found with the help of the shopkeeper. It should be as similar as possible to the previously used item with respect to
brand, origin, quality and price. The proposed item and price should be flagged with a D. With the approval of the supervisor, the new item will be introduced in CPI calculations.

**Quality differences:** If a change in the item priced has occurred, the agent determines whether this difference affects the price or not. If the change has affected the price, obviously a new variety has appeared and the field agent tries to obtain the price of this variety for both the current and the base period. These prices then are entered in the file and used to calculate the price change from the base period. This solution is not ideal, but is easier to apply than to try to separate the quality difference from the price change for these two varieties.

**Appearance of new items:** If a new variety has appeared then the field agent tries to obtain the price of this variety for both the current and the base period. These prices then are entered in the file and used to calculate the price change from the base period.

**Treatment of seasonal items and seasonality**

**Treatment of housing**

**Types of dwellings covered by the rent data:** Information on rent is collected on a monthly basis from three real-estate agents in the city and covers six types of housing units.

**F: Computation**

**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index) (Direct form)

**Formula to aggregate elementary indices to higher-level indices:** Elementary indices are aggregated to several levels using the modified Laspeyres formula and the fixed-weights proportional to consumption expenditures. The formula is given as

\[ \text{Price index} = \left( \frac{\sum P_1 \times W}{\sum W} \right) \times 100. \]

where

\[ P_1 = \text{Current period prices} \]
\[ P_0 = \text{Base period prices} \]
\[ W = \text{Weight} \]

**Formula of aggregating regional/population group indices into national index:** The national CPI is a weighted aggregate of the CPIs for Kabul, Herat, and Kandahar, Jalalabad, Mazar-e-Sharif and Khost cities. The city weights are the population totals for each city including surrounding provinces.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** When collected prices seem not to reflect the actual economic situation, a supervisor from the CSO visits outlets to cross-check the prices.

**Control procedures used to ensure the quality of data processed:** When there are large price differences between cities and shops, these prices are investigated.
H: Documentation and dissemination

Timeliness of dissemination of the CPI data: Kabul CPI is published about 10 days after reference month. The national CPI is published in 2 weeks after the reference month. The annual CPI for both Kabul and national is also published with 1 month lag of the reference year.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation

Publications and websites where indices can be found: Kabul CPI and National CPI monthly publications, in English and Dari; CPI Statistical Yearbook and Afghanistan Statistical Yearbook in English and Dari; Internet website: http://www.cso.gov.af/

Publications and websites where methodological information can be found: http://www.cso.gov.af/

I: Other Information

Completed by ILO in 2013.

Albania

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Institute of Statistics

Periodicity: Monthly

Price reference period: December year t – 1 = 100

Index reference period: December 2007 = 100

Weights reference period: 2007

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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide
Price collection: Urban areas

Population coverage: Resident households of nationals.

Population groups excluded: Institutional households.

Consumption expenditure includes:
- 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;
- Housing maintenance, minor repairs;
- 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);
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- Life insurance premiums;
- Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration)

Consumption expenditure excludes:
- Food consumed away from home;
- Purchase of owner-occupied housing;
- Mortgage repayments;
- Mortgage interest;
- 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;
- Second hand goods purchased;
- Expenditures abroad

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index (CPI) measures the change of the prices of a fixed basket of goods and services from base period to the current period. The consumer price index is used for different purposes: as a measurement of inflation rate in Albania, as a deflator for the national accounts, as a deflator for calculations of volume indices, for compensation of change in the cost of living of households, as a base for wage negotiations and other agreement and as a target variable for macro-economic policy, especially for monetary policy of the central bank of Albania.
Classification: COICOP (Classification of individual consumption by purpose)

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: Yes

Weights for different population groups or regions: No

**D: Sample design**

Sampling methods:

- **Localities**: Judgemental sampling
- **Outlets**: Judgemental sampling
- **Products**: Judgemental sampling

Frequency of sample updates:

- **Localities**: At the time of updating the weights and the basket of goods and services.
- **Outlets**: Annual
- **Products**: At the time of updating the weights and the basket of goods and services.

**E: Data Collection**

Approximate number of localities, outlets and price observations: Localities: 11, Outlets: 500, Price observations: 18,000

Frequency with which prices are collected: Food and others items - monthly; rent – quarterly; government tariffs- yearly.

Reference period for data collection: Specific date

Methods of Price Collection

- Personal data collection for all items.
- Official tariffs for government prices.

Treatment of:

Discounts and sales prices: They are used in the calculation of the index.

Black market prices: Not collected.
Second hand purchases: Not included.

Treatment of seasonal items and seasonality

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: The method used to impute price development in out-of-season periods is carrying forward the last observed price.

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: Apartment with furniture, rent data is collected quarterly.

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: The regional CPI is calculated (but is not published).

Formula of aggregating regional/population group indices into national index: To calculate the national CPI the price relatives are aggregated geographically to form product indices on items for whole Albania:

Monthly and annual average prices: Average prices are calculated monthly.

Seasonally adjusted indices: No

Software used for calculating the CPI: Microsoft Excel
**G: Editing and validation procedures**

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** 6 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) and Average prices

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

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

**Separate indices published for specific population groups:** No

**Type of products for which average prices are calculated and disseminated:** Food product, gasoline

**Documentation**

**Publications and websites where indices can be found:** Monthly publication “Consumer Price Index”; Internet website: [www.instat.gov.al](http://www.instat.gov.al)

**Publications and websites where methodological information can be found:** Monthly publication “Consumer Price Index”; Internet website: [www.instat.gov.al](http://www.instat.gov.al)

**I: Other Information**

Reported by the country in 2012.

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**Algeria**

**A: Identification**

**Title of the CPI:** National Consumer Price Index

**Organisation responsible:** National Office of Statistics

**Periodicity:** Monthly

**Index reference period:** 2001 = 100
Weights reference period: 2000

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

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: Consumer Price Index developed by the National Statistics Office is a Laspeyres index. The structure of the basket for the base year is set up on national surveys on household consumption expenditures.

Classification: The grouping of items is similar to that recommended by the international classifications for the needs of the national accounting system.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

D: Sample design

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Variety selection: The choice of varieties is done on the basis of criteria such as the annual expenditure and the expenditure frequency.

Outlet selection: The points of sale are chosen directly from the field considering their good clientele (in customers and products), depending on the types of questionnaire (categories of goods and services) and according to their dispersal. They are geographically classified so as to ensure the most correct representativeness possible, that is to say a satisfactory coverage of household supplying areas.

E: Data Collection

Frequency with which prices are collected: The observations frequencies vary by product nature and the price observation frequencies. For example fruits and vegetables - prices are checked 3 times per week, poultry, meat and eggs - prices are checked 2 times a week. For other varieties, the frequency is done either monthly or quarterly.

Methods of Price Collection
- **Personal data collection**

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** Seasonal products are submitted to a particular handling. For a given year, the months (index calculation periods) may not all have the same composition (or the same basket) of fresh products. An index is calculated from a monthly basket of the high season. This index compares the cost of the same basket (monthly) of the current month and the month in the base year. Base prices of varieties of the basket as well as weightings are monthly.

**Seasonal food items:** Seasonal food items are included in the CPI using variable weights approach: the weights vary over the year.

**Treatment of housing**

**F: Computation**

**Formula to aggregate elementary indices to higher-level indices:** Aggregation of elementary indices into higher-level indices is by Laspeyres formula.

**Formula of aggregating regional/population group indices into national index:** The national index is made up as a weighted average of the cities and villages’ indexes of the sample considered. The weight of each town, in being the weight of its population in the total population of the sample.

**Monthly and annual average prices:** The annual index is the arithmetic average of the monthly indices.

**Seasonally adjusted indices:** An index with fresh products is seasonally adjusted. The method used for the seasonal adjustment of this index is that applied for the processing of time-series by means of moving averages in the framework of the multiplicative model. This seasonal adjustment targets fresh products which the price fluctuation remains too important.

**G: Editing and validation procedures**

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** The consumer price index is available on the 10th day of the month following the reference month. It is published on the 15th day.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**
Publications and websites where indices can be found: Consumer Price Index - published monthly in “Statistical data”, “Statistical Collection” - Published annually. http://www.ons.dz/

Publications and websites where methodological information can be found: The annual publication "Statistical Collection" gives a more detailed idea about the methodology used for the index calculation.

**I: Other Information**

Completed by ILO in 2013.

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**Andorra**

**A: Identification**

**Title of the CPI:** Consumer Price Index of Andorra

**Organisation responsible:** Ministry of Finance and Civil Service / Département de la Statistique

**Periodicity:** Monthly

**Index reference period:** 2001 = 100

**Weights reference period:** March 2001 Family Budget Survey.

**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, 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.

**C: Concepts, definitions, classifications and weights**

**Definition of the CPI and its objectives:** The consumer price index is a measurement tool to estimate, between two periods, the change in prices of goods and services consumed by
residents in Andorra. The CPI measures the effect of changes in consumption that are just a result of price changes.

**Classification:** COICOP (Classification of Individual Consumption of Purpose)

**Sources of weights:** Household expenditure surveys.

**Frequency of weight updates:** Annual

**Price updating of weight reference period to the index reference period:** No, not needed.

**D: Sample design**

**Sampling methods:**

*Outlets:* Judgmental sampling

*Products:* Judgmental sampling

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:** Item/product selection: The product is defined and associated with a stall from which to follow the evolution of prices in time. The products that make up the framework of the CPI have to meet a number of conditions which include i) Be representative of the national consumption, ii) Be representative of the spatial distribution of consumption declared by the families surveyed as part of the CPI iii) Be representative of the sharing site, ie devote more efforts on commercial transactions which take place more frequently.

**E: Data Collection**

**Frequency with which prices are collected:** The set of prices are collected monthly except for housing prices and household services, which are collected quarterly. In the case of the fees or controlled prices, there is need to know when the price changes, so that the price calculation period (Pi) is determined in proportion to the days when every price is in force during the quarter.

**Methods of Price Collection**

- Personal data collection

- Central price collection

**Treatment of seasonal items and seasonality**

**Treatment of housing**

**F: Computation**
**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index) (Chained form)

**Formula to aggregate elementary indices to higher-level indices:** Aggregation of elementary series to higher-level series is by Laspeyres formula. The Laspeyres index is defined as the ratio of the cost of a basket of securities at a specified time and the base period. From this formula, the index of a month is the weighted average of the items or groups of items that make up the index.

\[ I = \sum W_i \cdot I_i \]

where

- \( I \) = the general index
- \( W_i \) = the weight per unit of time range
- \( I_i \) = the index of the variety

The index of the variety \( I_i \) is the ratio between the average price of the items in the current period \( (P_1) \) and the average price of items in the base period \( (P_0) \) i.e.

\[ I_i = \frac{P_1}{P_0} \cdot 100. \]

**Monthly and annual average prices:** The average price range of different items is calculated by the geometric mean of the price series obtained from different outlets.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** Once entire price series are available, price checks are done in order to resolve errors in transcription, omissions etc. These price controls meet certain criteria in order to identify those series that can show the evolution of prices in disagreement with reality. These criteria are: any number that varies significantly, all series evolving in the opposite direction compared to the other series that make up the variety, all series evolving much more or much less than had historically, all series involving a change of product, because it has been exhausted, or because the store is closed. The number of controlled series each month range on average around 10% -15%. The adjusted number of surveys may represent between 1% and 2%. Having the entire sample and the historical knowledge helps pass the correct prices to calculate the index.

**H: Documentation and dissemination**

**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

**Documentation**
Publications and websites where methodological information can be found: The methodological document of the CPI can be found at http://www.estadistica.ad/serveiestudis/web/index.asp

I: Other Information

Completed by ILO in 2013.

Angola

A: Identification

Title of the CPI: Indice de Preços No Consumidor de Luanda

Organisation responsible: Instituto Nacional de Estatística (INE)

Periodicity: Monthly

Price reference period: December 2010 = 100

Index reference period: December 2010 = 100


Main uses of CPI: Main inflation indicator used for monetary policy, deflates household expenditures in national accounts and computation of purchasing power of households.

B: CPI Coverage

Geographical Coverage

Weights: Main city (can include surrounding areas)

Price collection: Main city (can include surrounding areas)

Population coverage: Resident households of nationals.

Population groups excluded: Low income households, high income households and one-person households.

Consumption expenditure includes:

- Foods produced for own final consumption;
- Food consumed away from home;
- Income in-kind receipts of goods;
- Income in-kind receipts of services;
• Housing maintenance, minor repairs;
• Luxury goods;
• Gambling expenditure, gross of winnings

Consumption expenditure excludes:

• 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;
• Financial services (including fees for financial advice, brokerage fees);
• Interest payments (excluding mortgage interest payments);
• Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
• Life insurance premiums;
• Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
• 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;
• Second hand goods purchased;
• Expenditures abroad

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: CPI is an indicator which measures changes in the prices of a selected set of goods and services representing household consumption in a given period of time and in a particular geographic area. It is used as an inflation indicator for monetary policy, deflator of household expenditure in the national accounts and for estimating the purchasing power of households.

Definition of consumption expenditures: Purchased value of goods and services.

Classification: COICOP (Classification of Individual Consumption of Purpose)

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 are price updated up to the base period December 2010 = 100.
Weights for different population groups or regions: Not yet, it will be available in July 2012.

D: Sample design

Sampling methods:

Localities: Judgmental sampling

Outlets: Judgmental sampling

Products: Judgmental sampling

Frequency of sample updates:

Localities: discretionary

Outlets: discretionary

Products: discretionary

If sample updates are irregular indicate when last updates were introduced: 2009

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Prices are collected in the capital city where the most popular outlets are being selected. All parallel markets are also of interest.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Surveying the shopkeepers in order to identify the most popular brands.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 5/7 Municipalities, Outlets: 141, Price observations: 14,788

Frequency with which prices are collected: Food items – weekly, all others items monthly except for rents which are collected annually.

Reference period for data collection: Average monthly prices are calculated as geometric averages of prices collected in different observation units.

Methods of Price Collection

- Personal data collection for food and non-food items.

- Official tariffs for public services.

Treatment of:
Discounts and sales prices: Discounts and sales prices for only regular products, i.e., undamaged, with no expired date, etc. are included in price collection.

Black market prices: Yes

Second hand purchases: Not included.

Missing or faulty prices: Missing prices are treated by carrying forward the previous observation.

Period for allowing imputed missing prices: A missing price is carried forward for 3 months after which the price collector is asked to recommend a replacement.

Disappearance of a given type or quality from the market: Once a product disappears from the market, it is replaced with a product of similar characteristics and price.

Quality differences: When a change in quality is observed, either the product or the outlet is changed.

Appearance of new items: A new product in the market that was not initially in the CPI basket is not included, but an already existent product that appears with new characteristics is changed as from the base period.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: The last price is carried forward.

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: The method used to impute price development in out-of-season periods is carrying forward the last observed price.

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: Insere- se sómente as rendas de casa efectiva.

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: Weighted arithmetic average is used to aggregate the indices. Laspeyres formula, with a fixed basket and weights corresponding to the base period (December 2010) is used. The formula used is as follows:

\[
I^t_0 = \frac{\sum_{i=1}^{n} P_{it} Q_{i0}}{\sum_{i=1}^{n} P_{i0} Q_{i0}} \]

\[
i) \quad \sum_{i=1}^{n} P_{it} Q_{i0} \]

\[
ii) \quad \sum_{i=1}^{n} P_{i0} Q_{i0} \]

Where: \( I^t_0 \) = index of period \( t \) relative to the base period; \( P_{it} \) = price of variety \( i \) in period \( t \); \( P_{i0} \) = price of variety \( i \) in base period; \( Q_{i0} \) = quantity consumed of variety \( i \) in base period.

Formula of aggregating regional/population group indices into national index: Index for capital only is calculated.

Seasonally adjusted indices: No seasonal adjustment.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Supervision in the field.

Control procedures used to ensure the quality of data processed: Semanalmente faz-se uma critica de preços para que todos os produtos estejam no mesmo nível.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI data is disseminated 7 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) and Average prices

Online: Group-level app. 40 groups, Average prices

Restricted Access: Basic items

Separate indices published for specific population groups: No

Type of products for which average prices are calculated and disseminated: Food products.
Documentation

Publications and websites where indices can be found: Internet website: www.ine.gov.ao

Publications and websites where methodological information can be found: Boletim mensal do IPC Abril de 2012

I: Other Information

Reported by the country in 2012.

Anguilla

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Anguilla Statistics Department

Periodicity: Quarterly

Index reference period: December 2000 = 100

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

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The CPI is a measure used for the general level of retail prices in the Anguilla economy. Its change from one period to another (inflation rate) indicates the general price movement. It is a composite measure of the change in average prices paid by the consumer for a representative basket of goods and services.

Sources of weights: Household expenditure surveys.
Frequency of weight updates: Above 5 years

D: Sample design

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 30

Frequency with which prices are collected: Price surveys are conducted quarterly.

Reference period for data collection: Prices are collected on Wednesday of the first week of the last month of the quarter.

Methods of Price Collection

- Personal data collection

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

G: Editing and validation procedures

H: Documentation and dissemination

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation


I: Other Information

Completed by ILO in 2013.

Antigua and Barbuda

A: Identification
Organisation responsible: Eastern Caribbean Central Bank (ECCB)

Periodicity: Monthly

Index reference period: January 2001 = 100


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

B: CPI Coverage

Geographical Coverage

Weights: Antigua

Price collection: Antigua

Population coverage: Resident households of nationals.

Population groups excluded: Barbuda

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The purpose of the Consumer Price Index is to measure changes in prices of goods and services purchased by the population for household consumption.

Classification: COICOP (Classification of individual consumption by purpose)

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

D: Sample design

E: Data Collection

Frequency with which prices are collected: Prices for food items are collected two weeks each month. Frequency of vegetable prices is monthly. Prices for specific items are collected quarterly and semi-annually.

Reference period for data collection: Data collection is done for two weeks of each month, commencing on the second Tuesday of each month.

Methods of Price Collection
Personal data collection for most of the items

Treatment of:

**Missing or faulty prices:** Imputation is done for items that are missing for approximately three months from retail outlets.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** No adjustments are currently made for seasonality.

**Treatment of housing**

**F: Computation**

**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index) (Direct form)

**Formula to aggregate elementary indices to higher-level indices:** The Laspeyres formula is modified as the weighted arithmetic mean of price relatives.

**Monthly and annual average prices:** The annual average CPI is derived by summing the CPI for each month of the year and dividing by 12.

**G: Editing and validation procedures**

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** Data are disseminated approximately the last week of the reference month.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**


**I: Other Information**

Completed by ILO in 2013.
Argentina

A: Identification

Title of the CPI: Índice de Precios al Consumidor del Gran Buenos Aires

Organisation responsible: Instituto Nacional de Estadística y Censos

Periodicity: Mensual

Price reference period: December year t – 1 = 100

Index reference period: Abril 2008 = 100


Main uses of CPI: Computation of purchasing power of households, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Main city (can include surrounding areas)

Price collection: Main city (can include surrounding areas)

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;
• 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;
• Occupational expenditures;
• Expenditures abroad

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;
• Luxury goods;
• Financial services (including fees for financial advice, brokerage fees);
• Interest payments (excluding mortgage interest payments);
• Life insurance premiums;
• Investment-related expenditures (e.g. purchase of shares/stocks);
• Other business-related expenditures;
• Second hand goods purchased;
• Social transfers in-kind of goods and services from government and no-profit institutions serving households

C: Concepts, definitions, classifications and weights


Definition of consumption expenditures: Para el cálculo de las ponderaciones del IPC-GBA se incluye, como gasto de consumo, además de lo gastado por los hogares en bienes y servicios de consumo individual, el valor de los bienes y servicios recibidos en pago por el trabajo de los miembros del hogar así como los bienes obtenidos de la producción propia del hogar o retirados del propio negocio para consumo del hogar. Se excluyen de las ponderaciones del IPC-GBA los gastos que en el Sistema de Cuentas Nacionales no son considerados como de consumo (intereses, impuestos, aportes jubilatorios, cuotas de préstamos o deudas, donaciones o transferencias a otros hogares o a instituciones sin fines de lucro, etcétera) y otras salidas de dinero imputables a la inversión física o financiera del hogar (compra de viviendas, pago de cuotas a círculos de compra, amortización de préstamos, compra de acciones, realización de depósitos bancarios, etcétera). Asimismo, se excluye el valor imputado por las Cuentas Nacionales al servicio habitacional proporcionado por las viviendas utilizadas por sus propios dueños. Por otra parte, cabe aclarar que para el cálculo de las ponderaciones de ciertos bienes y servicios se aplican tratamientos especiales en concordancia con las recomendaciones del SCN: a) los bienes durables (automóviles, equipos electrodomésticos, etcétera) son considerados por su valor de compra neto de lo recuperado por venta o trueque de usados, independientemente de su vida útil; b) el consumo de servicios de seguro se estima como un porcentaje de lo pagado en concepto de primas.

Classification: CCIF
Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys, fuentes externas de información, mercados concentradores, etc.

Frequency of weight updates: Every 3-5 years

Price updating of weight reference period to the index reference period: Se optó por actualizar las ponderaciones de las variedades IPC-GBA mediante la evolución de sus índices de precios utilizando para ello el IPC-GBA base 1999=100

D: Sample design

Sampling methods:

Localities: Judgmental sampling

Outlets: Simple random, judgmental sampling

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:

Outlets: At the time of updating the basket of goods and services and the weights.

Products: At the time of updating the basket of goods and services and the weights.

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

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Se ha decidido continuar el nuevo índice con la visita a los locales seleccionados por el IPC-GBA base 1999=100, basado originalmente en una muestra probabilística. Se han agregado nuevos locales informantes ubicados en áreas territoriales que no habían sido tenidas en cuenta en la muestra anterior, a fin de representar de modo más exhaustivo el tipo de negocios y las distintas áreas geográficas del Aglomerado Gran Buenos Aires. El tamaño de muestra total para el IPC-GBA queda especificado por la cantidad total de observaciones de precios que se realizan en un mes, que oscila en torno a 100,000. Entre estas observaciones hay dos tipos de reiteraciones: las que implican repeticiones del mismo artículo negocio en dos o más momentos del mes y las que derivan de la captación de diversos artículos negocios para una misma variedad.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 24 partidos GBA más CABA, Outlets: 6,000, Price observations: 100,000

Frequency with which prices are collected: Mensual, con frecuencia quincenal para super e hipermercados. El sistema permite frecuencia semanal según necesidad especifica
Reference period for data collection: Mes completo

Methods of Price Collection

- Personal data collection for todos
- Mailed questionnaires for variedades con tratamiento especial.
- Telephone interviews for variedades con tratamiento especial.
- Internet for variedades con tratamiento especial.
- Official tariffs for tarifas.

Treatment of:

Discounts and sales prices: Tratamiento normal

Second hand purchases: Not included.

Missing or faulty prices: Los precios faltantes se calculan a partir de su valor en el mes anterior, aplicándoles la variación observada en los precios de las demás variedades del mismo producto o agrupamiento superior si correspondiera y se agregan a los precios efectivamente observados. A excepción del caso de las variedades con alta estacionalidad, para las cuales se han construido cinco canastas estacionales: frutas frescas, verduras frescas, ropa interior, ropa exterior y calzado. En donde la imputación para dichas variedades consiste en repetir el último precio válido.

Period for allowing imputed missing prices: Si el precio es imputado en un período superior a los tres meses se reemplaza por otro similar previa aprobación de gabinete.

Salvo las variedades estacionales que se puede encontrar sin precios durante períodos superiores.

Disappearance of a given type or quality from the market: Se substituye por artículo variedad similar empalmando las series.

Quality differences: Se analizan manualmente los cambios de calidad. En caso de aceptarse el cambio se realiza una comparación directa. En caso de que no se acepte el cambio se imputa el valor.

Appearance of new items: En el IPC-GBA, si en el momento t aparece una variedad que no existía anteriormente y, por su importancia, se decide incorporarla, ello se podrá realizar a partir del momento t+1 cuando se está en condiciones de calcular el primer relativo de precios. Sólo se podrá insertar una nueva variedad si se tienen suficientes precios en el mes anterior.

Treatment of seasonal items and seasonality
Items that have a seasonal character and their treatment: Se han construido cinco canastas estacionales: frutas frescas, verduras frescas, ropa interior, ropa exterior y calzado. Para cada canasta estacional las ponderaciones son constantes y derivan de la información de la ENGH 2004/5, complementadas con información de los canales de venta y mercados concentradores para la definición de la ponderación mensual de cada variedad. Las ponderaciones mensuales de las variedades que componen las respectivas canastas estacionales están predeterminadas. Esto implica que en el mismo mes de distintos años, la ponderación de la variedad es la misma. La metodología usada compara precios actuales con precios promedio de doce meses anteriores.

Seasonal food items: Seasonal food items are included in the CPI using variable weights approach: the weights vary over the year.

Seasonal Clothing: Seasonal clothing items are included in the CPI using variable weights approach: the weights vary over the year.

Treatment of housing

Types of dwellings covered by the rent data: Viviendas en alquiler ya sean departamentos de uno a varios ambientes y casas distribuidos en todo el territorio geográfico del IPC.

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: Laspeyres. Se utiliza una promedio ponderado de los índices elementales.

Monthly and annual average prices: Media Geométrica.

Software used for calculating the CPI: Software propietario diseñado por el área de sistema del IPC. Base de datos Oracle y forms y reports de Oracle.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Se releva con netbooks lo cual permite un primer control en el momento que se ingresa un precio ya que advierte posibles errores. Supervisiones periódicas planificadas.

Control procedures used to ensure the quality of data processed: Tratamiento manual de valores atípicos siguiendo las recomendaciones del manual del IPC.

Reportes producidos por sistema que permiten analizar las series de precios por variedad, por variedad en local informante, por local informante, etc.

H: Documentation and dissemination

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

Documentation

Publications and websites where indices can be found: www.indec.gov.ar, Comunicado de Prensa IPC INDEC Informa, Anuario Estadístico

Publications and websites where methodological information can be found: The methodological document can be found at www.indec.gov.ar

I: Other Information

Reported by the country in 2012.

Armenia

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: National Statistical Service (NSS)

Periodicity: Monthly

Index reference period: 2010 = 100


Household survey.

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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide
Population coverage: Resident households of nationals.

Consumption expenditure excludes:

- Foods produced for own final consumption;
- Other goods produced for own final consumption;
- Services produced for own final consumption;
- Second hand goods purchased

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The CPI is a measure of pure price change in fixed-market basket of goods and services of a constant quantity and quality for the general population.

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, not needed.

D: Sample design

Sampling methods:

Outlets: Judgmental sampling

Products: Judgmental sampling

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Outlet selection: Observation units are selected based on volume of goods turnover and services provided by statistical units, regardless of their type of activity, and by other methods.

Item selection: The Process for selecting goods and services is based on the household survey data on the most consumable goods and services provided to population, as well as on the periodical observations of trade and service outlets and on the expert estimation.

Sample sizes: Prices are surveyed for each of the items at 9 – 12 previously selected commercial enterprises and service enterprises. About 250,000 price data are registered and analyzed each month.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: The set of goods and services with their definitions is prepared by the staff of the Price Statistics and International Comparisons Division of the
NSS and the same set of goods and services is used in all the regions for their price registration. For each item, specification is given in such details, as production country, quality indicators of goods, measurement unit, etc. For most of the goods and services, loose specifications of items are provided to price collectors with instructions to select the most popular variety. The price collector has to select the most popular variety and mark additional characteristics (color, composition, brand, model and so on).

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Outlets: 2,655, Price observations: 250,000

**Frequency with which prices are collected:** Price data are collected 3 times per month.

**Reference period for data collection:** Prices of consumer goods and tariffs for services are monitored 3 times for each month, on days nearer the 1st, 10th, and 20th days of the reference month.

**Methods of Price Collection**

- Personal data collection
- Official tariffs for communications, electricity, gas, etc.

**Treatment of:**

**Second hand purchases:** Second hand durable goods are not included in the price collection

**Missing or faulty prices:** In case of missing items, price change in the corresponding item/sub-group is taken.

Period for allowing imputed missing prices: Up to 2 – 3 months.

**Disappearance of a given type or quality from the market:** When the variety is permanently unavailable it is replaced by analogical variety with similar parameters and features. Item replacement is made in the base year.

**Quality differences:** Adjustment is made for the observed item quality during the price observation through recording item quality changes and discussing with the workers of outlet and appropriate specialists, as well, if necessary. Implicit and/or explicit quality adjustment techniques are conducted for new or non-comparable replacement products.

**Appearance of new items:** New products are not introduced in item structure before the next weight update.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** The method of seasonal price adjustments is based on changing (in accordance with the group or sub-group of
corresponding indices of the given item) the last fixed price up to price of the month the items appear.

**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.

**Treatment of housing**

**Treatment of owner-occupied housing:** No registration is made on owner-occupied housing.

**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:** Modified Laspeyres formula with fixed weights is used to aggregate basic indices by item groups and Republic of Armenia as a whole.

**Formula of aggregating regional/population group indices into national index:** The regional prices and indices data are aggregated in total for the Republic of Armenia using population, turnover and services weights. Separate CPIs are compiled for 11 population centers representing the whole 11 regions of the country.

**Seasonally adjusted indices:** No calculation is made for seasonally adjusted indices.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** Control visits to observation units are made to verify the accuracy and reliability of collected price information. In addition possible outliers are detected by calculating confidence intervals for the price level for each item.

**Control procedures used to ensure the quality of data processed:** In case of large price variations, price collectors clarify what the reasons are. Control visits to observation units are made to verify the accuracy and reliability of collected price information.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** Data are published on the last working day of the reference month.

**Level of detailed CPI published**

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

Documentation


Publications and websites where methodological information can be found: Internet website: www.armstat.am/file/Qualitydec/eng/9.pdf

I: Other Information

Completed by ILO in 2013.

Aruba

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Central Bureau of Statistics

Periodicity: Monthly

Index reference period: December 2006 = 100

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 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.

Consumption expenditure includes:

- Food consumed away from home

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer price index (CPI) measures changes in prices of consumer goods and services by households. It is the measure of the rate of price changes for goods and services bought by consumers.

Classification: COICOP (Classification of individual consumption by purpose)

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Every 3-5 years

D: Sample design

E: Data Collection

Frequency with which prices are collected: Prices are collected on a monthly basis for goods and services from the stores according to the standard price observation list by price observers.

Methods of Price Collection

- Personal data collection

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

G: Editing and validation procedures

H: Documentation and dissemination

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
Documentation


I: Other Information

Completed by ILO in 2013.

Australia

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Australian Bureau of Statistics (ABS)

Periodicity: Quarterly

Price reference period: 12 months ended 30 June 1990

Index reference period: 12 months ended 30 June 1990

Weights reference period: June Quarter 2011

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 and deflate household expenditures in national accounts.

B: CPI Coverage

Geographical Coverage

Weights: Main cities/metropolitan areas/regions

Price collection: Main cities/metropolitan areas/regions

Population coverage: Resident households of nationals.

Population groups excluded: Institutional households, foreign diplomatic and military personnel stationed in Australia and non-capital city private households.

Consumption expenditure includes:

- Food consumed away from home;
• Purchase of owner-occupied housing (new dwellings excluding land);
• Housing maintenance, minor repairs;
• Major repairs, conversions and extensions to owner occupied housing;
• Second hand goods purchased (motor vehicles that are ex-government and ex-business 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);
• Investment-related expenditures (e.g. purchase of shares/stocks) (the service charge only);
• Expenditures abroad (overseas holiday travel and accommodation)

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;
• Mortgage repayments;
• Mortgage interest;
• Purchase of gifts of goods and services given to others outside the household;
• Interest payments (excluding mortgage interest payments);
• Life insurance premiums;
• Gambling expenditure, gross of winnings;
• Occupational expenditures;
• 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 Australian Consumer Price Index (CPI) is a general measure of price inflation for the household sector as a whole. The CPI measures the average change over time in the price paid for a fixed basket of goods and services, acquired by consumers in metropolitan private households. The term 'metropolitan' means the six state capital cities, Darwin and Canberra. The current series CPI population group represents about 64% of all Australian private households. The CPI is primarily used as a macro-economic indicator by the government and economists to monitor and evaluate levels of inflation in the Australian economy, and for adjusting dollar values of types of fixed payments, such as pensions and contracts. The Australian CPI uses an acquisitions approach to construct the CPI, as it is the most appropriate method for this purpose.

Definition of consumption expenditures: Consumption expenditure includes all those goods and services acquired by the Australian Consumer Price Index (CPI) population group
in the weight reference period. The Australian CPI aims to have weights that correspond to the relative importance of each good and service to households. The CPI weights reflect the relative expenditures of the CPI population group as a whole and not those of any particular type or size of household. The weighting pattern for the Australian CPI is based on the acquisitions concept. The weight reference period includes expenditure on all those goods and services acquired (i.e. actually received) by the reference CPI population. The expenditure is included in the CPI weight reference period, regardless of the period in which payment or use occurs.

Classification: COICOP (Classification of individual consumption by purpose). Links from CPICC to COICOP are established at the class level.

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys, national accounts, population and industry surveys, government and financial institution's data and administrative data.

Frequency of weight updates: Above 5 years

Price updating of weight reference period to the index reference period: The Australian CPI adjusts the expenditure weights from the weight reference period to the price reference period using the ‘price updating of weights’ methodology. The price updated weights are calculated by multiplying the weights from the weight reference period by elementary indices measuring the price changes between weight reference and price reference period and rescaling to sum to unity. The weights in the 16th series Australian CPI generally relate to expenditures in 2009–10, re-valued using price movements in the CPI to June quarter 2011 (the 'link' quarter).

Weights for different population groups or regions: The Australian Bureau of Statistics produces Analytical Living Cost Indexes and a Pensioner and Beneficiary Living Cost Index to measure the impact of price change across different sub–groups of the Australian population. They are produced as a by–product of the Consumer Price Index using the payments (outlays) approach. Households are categorised based on the principal source of income, primarily derived from the Household Expenditure Survey (HES). The four household types that are identified are; employees households, age pensioner households, other government transfer recipient households and self-funded retiree households.

D: Sample design

Sampling methods:

Localities: Judgmental sampling

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: Continuous (on a rotating basis)

Outlets: Continuous (on a rotating basis)

Products: Continuous (on a rotating basis)

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: The importance of the expenditure class relative to the total CPI. In general, the more important the expenditure class, the larger the sample of products, outlets and localities.

The geographical spread of outlets: As far as possible, the samples are selected to cover the main areas in which households from the CPI population group are known to make their purchases.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: The preferred practice in pricing goods for the Australian CPI is for price collectors to price identical specifications at all outlets in all capital cities. Detailed specifications, which are prepared centrally for price collectors include for instance - brand name, material of composition, model number, style, size, and type of packaging. The nature of many goods and services, however, often makes this impossible. Specifically products can be readily defined by form and function, but a multitude of brands and models may exist making it impossible to guarantee that any one example of the product will be available Australia wide (for example daily newspapers, beer). The ABS employs a ‘respondent standard’ in such a case, where a generic description is provided in sufficient detail to ensure that the field officers will be able to locate an example of the product. This example must be consistent with the quality of those chosen in other outlets within the same city, and broadly consistent with those in other cities. An example of the required type of product is chosen at each respondent outlet, and its defining characteristics are added to the generic description for future use at that respondent.

E: Data Collection

Approximate number of localities, outlets and price observations: Price observations: 100,000

Frequency with which prices are collected: As the CPI is compiled quarterly, the prices of most goods and services are collected once each quarter. Prices of goods and services that are considered to be volatile (i.e. likely to change more than once during a quarter) are collected more frequently. A few items are priced only once a year, either because that is the known frequency that prices are reviewed (e.g. council rates) or because of seasonal availability (e.g. football matches). The general approach is to price each item as frequently as is necessary to ensure that reliable measures of quarterly price change can be calculated. Item frequency: Food & non-alcoholic beverages: monthly for fresh food, quarterly for meals out, take away and processed food, quarterly for non-alcoholic beverages. Alcohol and tobacco: monthly. Clothing and footwear: women’s garments monthly, men’s garments, children’s garments, footwear, accessories and clothing services are all quarterly. Housing: new dwelling
purchases by owner occupiers monthly. Rents, utilities and maintenance/repair of dwellings are quarterly. Property rates and charges are annual. Furnishings, household equipment and services quarterly. Health all items quarterly, except for health insurance which is priced annually. Transport all items quarterly, except for motor vehicles (monthly) and automotive fuel (daily). Communication: monthly. Recreation and culture: most items quarterly. Exceptions are holiday travel and accommodation, computing equipment and software, newspapers and magazine, all of which are priced monthly. Education all items are priced annually, except for preschool fees which are priced quarterly. Insurance and financial services: insurance services are priced quarterly, financial services monthly.

**Reference period for data collection:** The Australian CPI uses what is known as ‘point-in-time pricing’ for its price collection. Collection schedules are designed so that a particular price collection always occurs in the same period of the quarter. For example ‘a monthly collection might be priced on the second Wednesday’. This is done to ensure that prices are not affected by cyclical patterns in prices, such as moving from a sale price week, to a regular price week.

**Methods of Price Collection**

- Personal data collection for most prices. Personal visits are made to the selected outlets by trained ABS price collectors, who observe actual marked prices. They discuss with the retailers matters such as discounts, special offers, market shares and quality changes – and record such information.

- Mailed questionnaires for real estate agent fees and rents.

- Telephone interviews for new dwelling purchases by owner occupiers, domestic holiday travel and accommodation, veterinary fees, medical services and household services.

- Internet for domestic internet retailers only, holiday travel and accommodation, banking fees and charges, health insurance and car hire.

- Official tariffs for property rates and charges, stamp duties and levies, motor vehicle registration fees, urban transport.

- Administrative data and records, electronic questionnaire – various levels of government and government authorities, industry bodies, individual businesses) for rents, new dwelling purchases by owner occupiers, utilities, child care, automotive fuel, pharmaceutical products, postal services, telecommunications, education, insurance and tobacco.

**Treatment of:**

**Discounts and sales prices:** Most prices are collected by personal visits to the selected outlets by trained ABS price collectors, who discuss with the retailers matters such as discounts, special offers, and volume-selling items on the day. Discounted prices are recorded only when the discounts are not discriminatory and can be obtained without difficulty. The Australian CPI does not include items on clearance i.e., disappearing goods at unusually heavily discounted prices. Special and discounted prices are taken into consideration when these are generally available to the buying public. An important test of whether these prices can validly be used in compiling the CPI is whether the goods are of a quality identical to that
in the item specifications (e.g. the goods are not damaged or superseded stock). Another test is that the goods are available in quantities sufficient for shoppers generally to buy them on the pricing date (i.e. supplies are not limited to so-called early-bird shoppers, or purchases subject to some other restriction). Although special and discounted retail prices are readily observable for most goods, it is not necessarily so for large and expensive durables. Take motor vehicles as an example. The prices of motor vehicles may not be advertised widely and may be disguised with bonuses, trade-ins, factory cash-back offers and a package of extra features included for the list price of the vehicle. In these cases, substantial effort, including interviews with senior sales staff, is made to ensure that full particulars of the transactional prices are obtained.

**Black market prices:** Decisions regarding the composition of the CPI basket are not based on moral grounds, but rather on practical considerations – such as obtaining weight and price estimates, and measures of quality. In the Australian CPI, gambling is excluded as it is difficult to establish the service or utility that households derive from gambling, and thus to determine an appropriate price measure. Similarly recreational drugs and prostitution are both excluded.

**Second hand purchases:** In practice, all transactions involving second hand goods are assumed to occur within the household sector, with acquisitions and purchases cancelling out to give an effective weight of zero. The exception is for motor vehicles where household expenditure on ex-business and ex-government cars plus the dealer margin on used cars is included. There is difficulty in obtaining ongoing prices to constant quality for second hand goods. Prices for second hand goods are not collected for the Australian CPI.

**Missing or faulty prices:** All price data collected locally in outlets benefit from real-time editing made possible by the use of hand-held computers. If there is a large difference between quarters in the price for the same item in the same shop then the hand-held computer prompts the price collector to check the price. When prices are entered into the CPI computer system further validation checks are undertaken, supported by a tolerance level program which identifies outliers. If there is a large difference in the price level or change compared with similar items in other shops, then generally the price collector is asked to confirm the price by re-contacting the outlet. This also applies to observations which are not consistent with knowledge gained from other sources. If an item misses continually the ABS strategy for minimizing the occurrence of missing observations is to maintain the relevance of the sample of items priced by continuous review. Also common patterns are examined as part of a longer-term maintenance of price samples, items, and locations for which prices are missing. If a price cannot be observed or is faulty in a particular quarter, the ABS has several ways of dealing with this occurrence. Where an item is temporarily out of stock in the sampled outlet then a price is imputed normally using the average change of prices for the same product collected in other outlets. Only if reliable information is available indicating that prices have moved in a certain direction will this imputation be adjusted. The ABS procedure for imputing a price for a product which has no close substitutes is to estimate the movement where reliable market data is available supporting the movement or to impute a movement from an upper level (related) component.

Period for allowing imputed missing prices: For missing prices the Australian CPI distinguishes between items that are permanently and temporarily missing. For missing prices that are temporary the nature of any seasonality in the prices is determined, as well the characteristics of the particular good or service. Items within fruits and vegetables, and
clothing categories, which often have missing prices, are allowed, and with prices for them imputed off other items in the sample that are available at the time or are close substitutes. In such a case a missing price will generally not be allowed for extended periods. The goods and services included in the Australian CPI pricing samples are selected carefully to represent the range of goods and services bought by the CPI population group. Selection of replacement items in any sample must conform to the generic specification of the sample, and be a reasonable alternative to the missing item. CPI price collectors select replacement items on this basis so as to minimise any quality adjustments, at best the items will be directly comparable and require no quality adjustment. For sampling decisions, including replacement items, the Australian CPI uses information on the buying habits of the CPI population group such as brands, packaging sizes and product availability. This process involves extensive consultations with retailers, manufacturers, government authorities and other forms of market intelligence.

**Disappearance of a given type or quality from the market:** When a particular item or variety becomes unavailable in the Australian CPI, price collectors seek a replacement product which satisfies the criteria of the generic specification description. A different variety of the item priced should have a high enough market share to warrant replacement of the item that disappeared. CPI price collectors monitor this situation and make changes as part of regular sample maintenance.

**Quality differences:** The concept of quality used in the Australian CPI is based on a notion of consumer utility. Quality change is measured by reference to the expected value to the consumer of the changes. Quality differences between new and replaced products are handled by the CPI head office analysts and price collectors using a variety of methods, including expert judgment, direct comparison (i.e. no quality change and adjustment to the price), proportional quantity adjustment for small changes in package size, and option prices where the price of the feature is obtained from the manufacturer or wholesaler. In the case of personal computers, hedonic regression is used. These are all examples of explicit quality adjustment methods. In some cases there may be overlapping prices for the replacement item with the quality/utility difference and the item it replaces, and it may be assumed that there is a competitive market and that in consequence the difference between the two prices is fully accountable by differences in utility. But implicit quality adjustment methods are not the default method—the CPI computer system does not automatically apply the overall mean imputation or similar methods without an instruction from the compiler.

**Appearance of new items:** If a new product or service is deemed to be a completely different category of product (i.e. a new expenditure class) from any of the goods and services already included in the CPI, its inclusion would be considered only during one of the periodic reviews of the index where updated weighting patterns at the published level were available. Where a new product or service falls within the definition of an existing expenditure class, the Australian CPI takes a conservative approach with their introduction. Products and services are introduced into existing expenditure classes only after it is deemed that they have become widely available to the buying public, have become a permanent part of household expenditure, and their price structures are free from premiums attributable to novelty value or scarcity. Expenditure weights within the commodity grouping are adjusted when the new good substitutes for specific items in an existing expenditure class. All introductions of new items are done through a process of linking (chaining), so that the new items do not affect the level of the index.
Treatment of seasonal items and seasonality

**Items that have a seasonal character and their treatment:** The Australian All groups CPI is produced as an original series with no seasonal adjustment. Since the September quarter 2011, the ABS has produced an analytical series all groups CPI, seasonally adjusted. It comprises all components included in the all groups CPI, with seasonal adjustment of components where seasonality has been identified at the weighted average of eight capital cities level. Seasonal adjustment factors are calculated using the history of price changes up to the current quarter CPI and are revised each quarter. Each quarter the ABS publishes the factors used to calculate the seasonally adjusted expenditure class series at the weighted average of eight capital cities level of the CPI. Using this ABS seasonal adjustment methodology, 62 of the 87 expenditure class price indexes in the 16th series of the CPI were deemed to have a seasonal pattern at the weighted average of eight capital cities level. They are listed as follows; cakes and biscuits, electricity, breakfast cereals, gas and other household fuels, other cereal products, furniture, beef and veal, carpets and other floor coverings, pork, household textiles, lamb and goat, small electric household appliances, poultry, glassware, tableware and household utensils, other meats, tools and equipment for house and garden, fish and other seafood, cleaning and maintenance products, milk, personal care products, ice cream and other dairy products, other non-durable household products, fruit, childcare, vegetables, pharmaceutical products, food additives and condiments, medical and hospital services, snacks and confectionery, dental services, other food products n.e.c., automotive fuel, waters, soft drinks and juices, other services in respect of motor vehicles, take away and fast foods, urban transport fares, wine, books, tobacco, newspapers, magazines and stationery, garments for men, domestic holiday travel and accommodation, garments for women, international holiday travel and accommodation, garments for infants and children games, toys and hobbies, footwear for men pets and related products, footwear for women veterinary and other services for pets, footwear for infants and children, sports participation, accessories, other recreational, sporting and cultural services, rents preschool and primary education, maintenance and repair of the dwelling, secondary education, property rates and charges, tertiary education, water and sewerage, insurance. Information Paper: Seasonal Adjustment of Consumer Price Indexes, Australia 2011 (cat. no. 6401.0.55.003) available from www.abs.gov.au

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

**Treatment of housing**

**Treatment of owner-occupied housing:** Under the acquisitions approach in the Australian CPI, price inflation for owner-occupied housing (OOH) is represented by the purchase price of new dwellings (excluding land), local government rates and charges, house repair and maintenance expenses and charges for house insurance services. The treatment of owner-
occupied housing under the acquisitions approach requires the separation of the consumption and investment elements of owner-occupied housing – that is, land is treated as an investment item not a consumable item. The ABS considers that adherence to the acquisitions approach for OOH is appropriate considering the overall purpose of the Australian CPI and the concept it is attempting to measure. Pricing of house purchases is limited to transactions in newly constructed owner-occupied houses. Project home builders are approached to obtain prices for a few specified types and models of project homes. The types of project homes selected are those most commonly constructed in each capital city. The method of pricing owner occupied housing (pricing project homes) is easily understood by users, and more importantly, it reflects actual price movements in the period being recorded.

**Types of dwellings covered by the rent data:** Changes in rents are measured for that part of the reference CPI population that resides in rented dwellings. The rent component of the Australian CPI covers payments made by households as rent for both privately owned and government–owned dwellings. Costs such as maintenance of rental dwellings are paid by investors who are out of scope of a CPI. Rental payments for holiday homes are excluded as these are classified under domestic holiday travel and accommodation. Prices for a sample of rented dwellings within each capital city are collected every quarter, with the sample stratified according to location, dwelling type and size of dwelling based on the most recent census of population and housing. Rental payments for privately owned dwellings in the metropolitan areas of each capital city are obtained from real estate agents under a matched sample approach, i.e. prices are collected for the same sample of private rental dwellings every quarter. Government rents charged to pensioners and other welfare recipients are set as a proportion of income. As these incomes are known, rents for government–owned properties are derived from information provided by the state and territory housing authorities. Consequently, price movements can be readily estimated. Occasionally, the proportion used to set rents is changed. Again this is public knowledge and so is readily available for use in estimating price movements. This sort of information on pensions and incomes is sourced from social security agencies or other agencies.

**F: Computation**

**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index) (Direct form) and the ratio of geometric mean prices (Jevons index) (Direct form)

**Formula to aggregate elementary indices to higher-level indices:** The Australian CPI uses weighted arithmetic aggregation, specifically a base–weighted modified Laspeyres index formula (known as Lowe index) which keeps quantities fixed between major revisions but allows prices to vary. The period whose quantities are actually used in a CPI is described as the weight reference period. In the 16th series, this generally refers to the HES which is 2009–10 and it will be denoted as period b. Period 0 is the price reference period which is the June quarter 2011 in the 16th series CPI. The Lowe index using the quantities of period b can be written as follows:

\[ P_{L0} = \frac{\sum_{i=1}^{n} p_i^b q_i^b}{\sum_{i=1}^{n} p_i^0 q_i^0} = \sum_{i=1}^{n} \left( \frac{p_i^b}{p_i^0} \right) s_i^0 b \]
where

\[ s_i^{tb} = \frac{p_i^t q_i^t}{\sum_{t=1}^{n} p_i^t q_i^t} \]

where

- \( p = \) price of item \( i \) and time \( t \)
- \( q = \) quantity of item \( i \) and time \( t \)
- \( b_i = \) weight reference period of item \( i \) (e.g. 2009-10 HES)
- \( s = \) expenditure share of item \( i \)

In practice weights are expressed in terms of relative expenditure shares, and are price updated each period.

**Formula of aggregating regional/population group indices into national index:** The ABS compiles the Australian CPI on a separate basis for each capital city based on the acquisition of goods and services by the resident population of that city. The ABS also constructs the equivalent of a national index at the all groups CPI, group, sub-group and expenditure class level, which is published as the weighted average of the eight capital cities. A weighted arithmetic aggregation is used to form the Australia level index (weighted average of eight capital cities). A base period expenditure aggregate is calculated for each city at the group, sub-group and expenditure class level, using information primarily sourced from the HES on the number of households in each city and the average weekly household expenditure for specific items.

**Seasonally adjusted indices:** The ABS uses the Autoregressive Integrated Moving Average (ARIMA) X11 technique for seasonal adjustment.

**Software used for calculating the CPI:** ABS designed software for price index compilation.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** As a purposive survey, the more common measures of statistical (sampling) error are not applicable to the CPI. The question of error rates is addressed by focusing on statistical quality in collecting and processing the data. Quality assessment is a feature at all stages. Outliers are identified by the ABS commodity experts using their best informed judgment, including historical prices levels, and accepted tolerance levels. If there is a large divergence from informed expectations the data provider is asked to confirm the new price or indicate special factors that have come into play or changes in specification. The collection staff submits relevant reports and comments to the staff responsible for analysing and compiling the data. The latter, in turn, provide editing notes to senior CPI staff that include counts of quality adjustments and imputed prices for each index. Market reports, media articles, and other external sources are used to confront the reported price data during this process. The ongoing sample maintenance program ensures that the sample of items and specifications to be priced is kept up to date.

**Control procedures used to ensure the quality of data processed:** Statistical confrontation of similar sub-series in the CPI and Producer Price Index (PPI) is conducted routinely each
quarter. The national accounts uses the data in their analysis and processing, providing confrontation of the outputs post release. Discrepancies between these various series are thoroughly investigated, to ensure the coherence of CPI outputs with other relevant economic statistics. The CPI results are also assessed against market expectations, industry reports, media commentary and other external sources, with discrepancies thoroughly investigated. Confrontation of the data in this way also informs the ongoing sample maintenance and sample review program, ensuring that the items and specifications priced in the CPI are representative of household consumption patterns. Formal clearance meetings are scheduled where the results are reviewed in detail by senior section and branch staff, and major issues surrounding collection, sampling, methodology and processing are discussed.

H: Documentation and dissemination

**Timeliness of dissemination of the CPI data:** The CPI is compiled quarterly by the ABS for quarters ending on 31 March, 30 June, 30 September, and 31 December each year. The data are typically released on the fourth Wednesday after the end of the reference quarter, depending on public holidays, but no later than the last Wednesday of the month after the end of the reference quarter, in the publication Consumer Price Index, Australia (cat. no. 6401.0). Each quarterly CPI publication announces the precise publication dates for the subsequent four CPI quarterly publications as part of the ABS advance release schedule.

**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), Group-level app. 40 groups, Class-level (100 classes)

**Separate indices published for specific population groups:** The Australian Bureau of Statistics produces Analytical Living Cost Indexes and a Pensioner and Beneficiary Living Cost Index to measure the impact of price change across different sub–groups of the Australian population. They are produced as a by–product of the consumer price index using the payments (outlays) approach. Households have been categorised based on the principal source of income, primarily derived from the household expenditure survey (HES). The four household types that have been identified are; employees households, age pensioner households, other government transfer recipient households and self-funded retiree households. Analytical Living Cost Indexes for Selected Australian Household Types (cat. no. 6463.0) Pensioner and Beneficiary Living Cost Index (cat. no. 6467.0)

**Documentation**

**Publications and websites where indices can be found:** Consumer Price Index, Australia (cat. no. 6401.0), Analytical Living Cost Indexes for Selected Australian Household Types (cat. no. 6463.0), Pensioner and Beneficiary Living Cost Index (cat. no. 6467.0) available from www.abs.gov.au. Details on seasonal adjustment of CPI indices can be found in the information Paper: An Introductory Course on Time Series Analysis, January 2005 (cat. no. 1346.0.55.001) available at http://www.abs.gov.au
Publications and websites where methodological information can be found: Consumer Price Index: Concepts, Sources and Methods, 2011 (cat. no. 6461.0) and A Guide to the Consumer Price Index: 16th Series, 2011 (cat. no. 6440.0) are available from www.abs.gov.au

I: Other Information

Reported by the country in 2012.

Austria

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Statistik Austria

Periodicity: Monthly

Index reference period: 2010 = 100


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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals, temporary visitors and institutional households.

Consumption expenditure includes:

- Housing maintenance, minor repairs;
- Major repairs, conversions and extensions to owner occupied housing;
- Financial services (including fees for financial advice, brokerage fees);
- Gambling expenditure, gross of winnings
Consumption expenditure excludes:

- Purchase of owner-occupied housing

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The CPI is an average measure of change in prices and services bought in Austria for the purpose of consumption by all Austrian households, foreign visitors and residents in institutional households.

Classification: COICOP (Classification of individual consumption by purpose) with 12 COICOP divisions, 40 groups and 86 classes.

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys and national accounts.

Frequency of weight updates: Annual

Price updating of weight reference period to the index reference period: The weights are price dated from the weight reference period to the index reference period.

D: Sample design

Sampling methods:

Outlets: Judgmental sampling

Products: Judgmental sampling

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Outlet selection: Prices of commodities are collected in some 3,990 outlets in the 20 largest Austrian cities, so that all trading is represented. If an outlet closes or becomes irrelevant an important replacement outlet (with respect to turnover) is selected. Outlet weights are not used.

Item selection: Purposive sampling of representative items is used for the initial sample, and the update follows the representativity principle. The number of items and price observations depend on the weight and the variability of price movements within the corresponding segment. Items have to be selected for the basket of goods, if the turnover is greater than 0.1% of the total expenditures.

Sample sizes: some 40,492 sample prices for 791 products are collected monthly.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Relatively broad definition of the products, no specification of trademarks. Price collectors select current volume sellers within the range of available product offers and report the detailed product specification for central quality adjustment.
E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 20, Outlets: 3,990, Price observations: 40,492

Frequency with which prices are collected: Price data for food items and other goods and services is collected monthly. Rents data is collected quarterly.

Reference period for data collection: Data are collected in the week that contains the Wednesday which is between the 6th and 12th of each month (Monthly). For fruits, vegetables and energy products prices are collected in a second week which contains the Wednesday which is between the 20th and 26th of each month. Exceptions are prices for rents, for which a quarterly average is calculated. They are collected on a quarterly basis in a separate survey (Mikrozensus).

Methods of Price Collection

- Personal data collection
- Mailed questionnaires
- Telephone interviews
- Internet

Treatment of:

Discounts and sales prices: Individual discounts are not reflected in the CPI.

Missing or faulty prices: Prices are adjusted by the rate of change of the other price observations of the same product for missing prices.

Period for allowing imputed missing prices: Up to 3 months.

Disappearance of a given type or quality from the market: If a product offer is not available any more a new product offer is selected as replacement immediately after three months at latest.

Quality differences: Quality adjustment for food, Expert Judgment adjustment method e.g. for clothing, Option pricing method for durables and cars, Hedonic method for books and memory cards/sticks. Main quality adjustment methods (in 2011 CPI) are; a) Food and non-alcoholic beverages: linear package size adjustment, supported judgement for brand/no-brand; b) Alcoholic beverages, tobacco: linear package size adjustment; c) Clothing and footwear: supported judgement for brand/no-brand and for important features, in addition linear package size adjustment for underwear etc.; d) Housing, water, energy: very few adjustments in practice; e) Furnishings, household equipment and routine maintenance of the house: option prices and supported judgement for consumer durables; f) Health: linear package size adjustment for drugs, no adjustment otherwise; g) Transport: option price (50%) and fuel consumption adjustment for cars; h) Communication: option prices and supported
judgement for durables, no quality adjustment for services; i) Recreation and culture: option prices, hedonics and supported judgement; j) Education: very few adjustments in practice; k) Restaurants and hotels: very few adjustments in practice; l) Miscellaneous goods and services: linear package size adjustment, supported judgement for brand/no-brand, option prices and supported judgement for services.

**Appearance of new items**: New products are selected with respect to demand (turnover) and availability and are introduced every December. New models and varieties are implemented by replacement as soon as they become relevant.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment**: For seasonal items a fixed weights approach is used and two estimation procedures are in place: all seasonal and counter seasonal adjustment. For the counter seasonal adjustment two variants of the same product are used (e.g. a winter and a summer basket for clothes) and the price development is estimated by the available price observations. The all seasonal procedure is used for goods where no counterpart for the off-season is available. For these products (e.g. some fruits) the average price of the previous season is inserted in the first month and the price development of all other products in the same COICOP class are used to estimate the index in the off season months.

**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**: Regular payments for owner occupied flats are included (initial payments are excluded). House construction goods and services and major repairs are included. Purchase of a house is not included.

**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**: Aggregation is by Laspeyres Chain index.

**G: Editing and validation procedures**
Control procedures used to ensure the quality of data collected: Regional price data is checked by the statistical offices of the cities when it is provided by the price collectors. Automatic plausibility controls are followed up centrally in Statistik Austria at micro and macro level. The plausibility checks follow two main directions: bottom up from the single price observation to the aggregate, and top down from the aggregate to the single price observations. If necessary the price collectors are requested to check the observation in the next month and the correction is then put in.

Control procedures used to ensure the quality of data processed: During processing, some automatic validation is done when the data are entered into the database. The aggregates are analyzed to detect price movements and single price observations which are out of range. The procedure also looks at single price observations and quality adjustment and estimates the influence on the index.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI data is disseminated 2 weeks after the end of the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation

Publications and websites where indices can be found: Press release Statistik Austria in German only Monthly: “Statistische Nachrichten” published by STATISTIK AUSTRIA; Monthly rapid report, “Verbraucherpreisindex” available in German only; Sub-aggregates and special aggregates are published in Statistische Nachrichten and in Rapid Reports (Schnellberichte). Quarterly: The quarterly Statistische Übersichten which is a supplement to the monthly statistical bulletin of STATISTIK AUSTRIA; Statistische Nachrichten. Internet website: www.statistik.at and http://www.statistik.at

Publications and websites where methodological information can be found: Information concerning the methodology and revisions in the methodology for compiling the consumer price index is published in “Der neue Verbraucherpreisindex 2000, Nationaler und Harmonisierter Verbraucherpreisindex, Verlag Österreich, Wien 2001”, available in German only and in various articles. Website: http://www.statistik.at

I: Other Information

Completed by ILO in 2013.

Azerbaijan
A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: State Statistical Committee of Azerbaijan (SSC)

Periodicity: Monthly

Price reference period: 2005

Index reference period: Previous month = 100

Weights reference period: 2011

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 and deflate household expenditures in national accounts.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Urban areas

Population coverage: Resident households of nationals.

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;
- Financial services (including fees for financial advice, brokerage fees);
- Interest payments (excluding mortgage interest payments);
- 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;
• Second hand goods purchased;
• Luxury goods;
• 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 (CPI) is the universally recognized indicator of inflation characterizing change over time of average level of prices to the fixed list of goods and services purchased by population for own consumption.

Definition of consumption expenditures: Consumption expenditures in household sample survey (CPI weight) are estimated in consumer prices which include trade and transport price mark-up as well as levied taxes for deduction of subsidies for products.

Classification: COICOP (Classification of individual consumption by purpose) at 8 digit level.

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: The weights are updated annually, so there is no need to make adjustments in weights.

Weights for different population groups or regions: Weights are formed by each region and as a whole by the country, but not groups of population.

D: Sample design

Sampling methods:

Localities: Judgmental sampling

Outlets: Judgmental sampling
Products: Judgmental sampling

Frequency of sample updates:

Localities: Continuous (on a rotating basis)

Outlets: Continuous (on a rotating basis)

Products: Continuous (on a rotating basis)

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Consumption bundle of goods and services based on which CPI is calculated presents the representative sample of goods and services more frequently consumed by population. For the state statistical survey on prices there are 565 selected titles of goods and types of services characterizing actual structure of consumer expenditures of population of the republic. New goods and services are included in consumption bundle of goods and services when the share of expenditures for their purchasing makes not less than 0.01% from total consumer expenditures of population. Peculiarity of consumption bundle of goods and services is the definite flexibility on its formation since the specialist of the SSC determine total list of goods (services) and groups of goods, but the specialists on the regional level present details by concrete titles of goods (services)-representatives.

On selection of definite type of goods, the preference is given to goods that are likely to constantly be in sale during the next months. Selection of concrete type of goods (services) is realized by a specialist jointly with the manager or shop assistant or employee of organization providing the services. Goods (services) selected for the state statistical survey are always in requisition among the population.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 54, Outlets: 9,500, Price observations: 13,000

Frequency with which prices are collected: Data are registered during the period from 1st to 30th day of the month. Information on prices of food products is collected thrice in a month (each 10 days), but prices of the rest goods and services included in the list are registered once in a month. Collection of data on prices of non-food products in the concrete trade organization and tariffs in the organization providing paid services for population during the reporting period is realized on one of the two calendar days proceeding or next day of the actual data collection during the previous month. The specified term of the registration of prices (tariffs) is maintained in order to keep interval between two registrations during a month.

Reference period for data collection: Prices are collected in each outlet on a specified date.

Methods of Price Collection
- Personal data collection for all goods and services excluding the ones for which prices are regulated by the government.

- Official tariffs for petrol, housing and communal services, transport services inside the country, postal communication and telecommunication services.

**Treatment of:**

**Discounts and sales prices:** Actual price of goods (including VAT, excises, taxes on sale and other indirect taxes) that are in sale and paid by cash is registered. Goods realized by concessive prices for separate groups of citizens are not registered. Bargain sales prices or special offers are registered if they represent either temporary price fall for goods that would be sold without discount or refer to the categories of seasonal sale (for example, sale of clothes and shoes at the end of the season). On stock-taking sales prices of goods which had lost their marketable style or which are defective are excluded from registration.

**Black market prices:** Not collected due to absence of a black market.

**Second hand purchases:** Not included.

**Missing or faulty prices:** In case of temporary absence of unseasonal goods the methods of imputation of the absent prices are applied using mean change of available prices of goods or using price change of separate comparable goods from another similar trade organization.

Period for allowing imputed missing prices: If goods are not available on the market for a long time and there is no expectation of their reappearance in the future, they are considered permanently unavailable. Carrying forward the last observed price could not be done for ever. Goods could become unavailable on the market due to appearance of new goods, or because the outlet stops its sale. In case of final disappearance of a good, the substitute goods is selected and included in price index computation. Substitute goods should have significant sales, remain on the market during certain period of time and be representative of price changes for goods not included in the sample.

**Disappearance of a given type or quality from the market:** For pricing of goods which replace items finally disappeared from the market the following methods are applied: i) direct comparison – if substitute goods are directly comparable by quality with goods absent in the market. Here it supposes that difference in the level of prices between new and old goods is stipulated by change of price but not by differences on quality. ii) Combination is applied in cases when any information allowing to make reasonable assessments of impact of change of quality on price is absent, however substitute goods are absent during the same period with old goods. Replacing goods could be considered incomparable with absent goods but data acquisition about the prices both on absent, and on replacing the goods in combination, till disappearance of the first goods is thus possible. The difference in the price between old and replacing goods is used then as a distinction indicator in quality. The choice of a method of replacement of the goods in many respects depends on specifics of conditions of realization of the goods, their existence in the consumer markets and other factors.

**Quality differences:** Various quality adjustment methods are applied to take into account the changes in the quality of the goods: i) corrections based on quantitative characteristics; ii) adjustments based on a difference in costs of production (option cost); the method of expert
evaluations is used rarely. If replaced and replacing products are available at the same time and if it is impossible quantify the difference in the quality, implicit quality adjustment method is used (the assumption is that the difference in the price of a replaced and a replacing good is caused by difference in quality.

**Appearance of new items:** New types of goods and services (i.e. goods and services that do not refer to any of existing groups of expenses) are included in observation during the period of replacement of the weighing, as a rule at the beginning of the year. New models and assortment types of the existing goods that may be referred to existing groups of expenses are included in observation when their share in the market is estimated as essential and steady.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** The seasonal goods include some food items (vegetables, fruits, and potatoes), separate types of clothes and footwear, tourist services and others. During the non-seasonal periods of the year the method of the settlement prices on these items is applied where the price level on the absent goods is defined with their change on the similar goods of the relevant group, which are available on sale during the whole year. For the seasonal goods which are absent on sale within one to several months per year, the expert registering the price makes mark in the form that the goods on sale are absent. The final registered price for reporting month isn't included in the form as the price of the last month. The state statistical observation regarding to prices for fruits and vegetable production has the peculiarities, therefore some features are considered during the registration of their prices for the separate goods. Registration of the prices for potatoes is carried out for new potatoes and potatoes of previous year separately. Information on the prices for new potatoes includes in CPI calculation from the moment of mass realization of these goods. Taking into account the climate of the republic the month of inclusion in calculations of new potatoes usually is June. Gradually increasing specific weight of new potatoes is considered in total amount of realization of these goods. For this purpose, the prices for early potatoes and potatoes of previous year during the summer period (considering a considerable difference in the prices) are weighed based on their volumes of consumption for receiving weighted average price that gives possibility to make coordination of the prices for potatoes of the current and previous year. Information on the prices for early carrots, beet, cabbage also included in registration from the moment of mass realization of these goods, taking into account growing weight of production of crops of the current year.

**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.

**Treatment of housing**

**Treatment of owner-occupied housing:** Following tariffs per square metre per month are subject to registration: i) Renting of the premises in the state and municipal housing; ii) The maintenance and repair of dwellings in the state and municipal housing; iii) The maintenance and repair of dwellings for citizen-owners of properties in the result of privatization, citizens-
owners of premises on other bases; iv) Services for organization and implementation of activities on exploitation of dwellings.

Types of dwellings covered by the rent data: Rent data is observed following actual rental payment for dwelling: i) rent paid by tenants, living in apartments and ii) rent of dwellings by private owners. Data is gathered monthly.

F: Computation

Formula to aggregate elementary indices to higher-level indices: CPI is calculated as weighted average value based on Laspeyres formula.

Formula of aggregating regional/population group indices into national index: Laspeyres modified formula. The index covers each region separately and unites with national index on share of regions in total expenses of households.

Monthly and annual average prices: Average prices are calculated as compound variable.

Seasonally adjusted indices: Indices with seasonal adjustment are not calculated.

Software used for calculating the CPI: Visual FOXPRO

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: There is an instruction on adjustment and control of price data collection. The plan of implementation of adjustments is compiled quarterly and the control of data collection is carried out according to this plan in the fields.

Control procedures used to ensure the quality of data processed: Software provides control of data processing.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI data is disseminated 5 days after the end of the reference month. Timeliness of data dissemination is indicated in official webpage of the SSC Azerbaijan.

Level of detailed CPI published

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

Online: All items CPI, Division-level (12 Divisions), Group-level app. 40 groups, 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: Average prices are calculated and disseminated for all goods and services included in CPI basket.

Documentation

Publications and websites where indices can be found: Live data: Express information and Price change in consumer market, Statistical bulletin: Prices and price indexes, Magazine: Socio-economic development, Section “Prices” (quarterly), Annual periodicity: Statistical yearbook: “Prices in Azerbaijan”; Statistical yearbooks: section “Price”.

Publications and websites where methodological information can be found: Express information: price changes in consumer market, Statistical bulletin: “prices and price indexes”, Internet website: www.azstat.org

I: Other Information

Reported by the country in 2012.

Bahrain

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Central informatics Organisation

Periodicity: Monthly

Index reference period: 2006 = 100

Weights reference period: 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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.
Population groups excluded: Institutional households.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index (CPI) measures the changes in the price of a fixed basket of goods and services commonly purchased by the majority of the households over time. The types and specifications of the goods and services in the CPI basket as well as their quantities are kept constant at the base period. This ensures that any changes in the index reflect solely price changes over time.

Classification: COICOP (Classification of individual consumption by purpose). The item selection is in correspondence between the classes of COICOP and the subclasses of the Central Product Classification (CPC).

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

Price updating of weight reference period to the index reference period: No, not needed.

D: Sample design

Sampling methods:

Outlets: Judgmental sampling

Products: Judgmental sampling

E: Data Collection

Methods of Price Collection

- Personal data collection

- Mailed questionnaires for prices of services like education, telecommunication.

- Internet for prices of services like education, telecommunication.

- Administrative data for control prices.

Treatment of:

Black market prices: Sales of illegal goods and services are excluded in the price collection.

Missing or faulty prices: Prices for temporarily missing items or seasonally unavailable items are appropriately handled by imputing their prices based on the change of similar product’s prices.
Period for allowing imputed missing prices: Imputation of a missing price is allowed up to 3 months.

**Disappearance of a given type or quality from the market:** If the products become permanently unavailable, they are replaced in the sample.

**Quality differences:** The adjustment for quality differences is made whenever any physical characteristics are changed. The overlap or link to show no change methods are applied for imputing the prices for the above two cases.

**Treatment of seasonal items and seasonality**

**Treatment of housing**

**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:** Laspeyres formula is used to aggregate elementary indices to higher-level.

**G: Editing and validation procedures**

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** The index is published on the 21st day following the reference month.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**

**Publications and websites where indices can be found:** The CPI is published in the newspaper on a monthly basis and also in 'Bahrain in Figures' published by CIO. Annual Statistical Bulletin

**I: Other Information**

Completed by ILO in 2013.

**Bangladesh**
A: Identification

Title of the CPI: National Consumer Price Index

Organisation responsible: Bangladesh Bureau of Statistics

Periodicity: Monthly

Index reference period: 2005/2006 = 100


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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Consumption expenditure excludes:

- Investment-related expenditures (e.g. purchase of shares/stocks)

C: Concepts, definitions, classifications and weights

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

Price updating of weight reference period to the index reference period: No, not needed.

Weights for different population groups or regions: Group weights for urban and rural areas are computed and are used in the computation of the National CPI.

D: Sample design

Sampling methods:

Outlets: Judgmental sampling

Products: Judgmental sampling
Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Outlet selection: For each item price is collected from three selected outlets. There are many outlets in a market, among them three big outlets are selected to collect the price data of individual items. The locations of outlets are in different areas like urban, rural, district and divisional headquarters.

Item selection: The items selected should be as representative as possible. The total number of items is divided into groups and subgroups and then from each group a representative sample is selected for inclusion.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Price collectors should make sure that they are pricing the correct product based on the product specifications in the CPI product list.

E: Data Collection

Methods of Price Collection

- Personal data collection

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

Formula used for calculation of elementary indices: The arithmetic average of the price ratios (Carli index) (Direct form)

Formula to aggregate elementary indices to higher-level indices: For computation of the indices, Laspeyres formula is and is given as below:

\[ I = \frac{\sum P_t W_i - \sum P_0 W_i}{\sum W_i} \times 100 \]

where

\( I \) = Consumer price index
\( P_t \) = Price in the current period
\( P_0 \) = Price in the base period
\( W_i \) = Weight of the \( i^{th} \) item
\( W \) = Weight of the group.

Formula of aggregating regional/population group indices into national index: The national CPI is calculated by combining the urban and rural indices using as weights the urban and rural household expenditure multiplied by the total number of urban/rural households as available from population census data.

G: Editing and validation procedures
Control procedures used to ensure the quality of data collected: Immediately after receiving the price returns from the field, the data are scrutinized and edited by the respective data compilers under the supervision of two/three officers.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: Dissemination is within 21 days of the end of the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation


Publications and websites where methodological information can be found: The methodology and data sources used in the compilation of the consumer price indices are contained in the publication 'Sources and Methods of Indices (National Accounts Deflators)' available upon request.

I: Other Information

Completed by ILO in 2013.

Barbados

A: Identification

Title of the CPI: Index of Retail Prices

Organisation responsible: Barbados Statistical Service

Periodicity: Monthly

Index reference period: July 2001 = 100

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

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Consumption expenditure includes:
  • Food consumed away from home

Consumption expenditure excludes:
  • Life insurance premiums;
  • Investment-related expenditures (e.g. purchase of shares/stocks)

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The index of retail prices measures the change in price of a representative sample of goods and services commonly consumed by households in Barbados.

Classification: COICOP (Classification of individual consumption by purpose)

Sources of weights: Household expenditure surveys, national accounts and general census.

Frequency of weight updates: Above 5 years

D: Sample design

Sampling methods:

Outlets: Judgmental sampling

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

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Item selection: The estimates obtained from the total annual household expenditure on all items are used to select the items that are included in the basket of goods and services and to compute their corresponding weights. Items are therefore chosen to represent various groups and sub-group classifications on the basis of the
magnitude of the estimated annual household expenditure on these items and their frequency of occurrence in the household budget survey.

Outlet selection: The selection of outlets is based on the frequency with which such outlets appear in the household budget survey. Local knowledge is used to supplement survey data in selecting these outlets and they are widely distributed throughout the island. When an outlet closes, a new one of similar size and line of products is chosen to replace it.

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 191

Frequency with which prices are collected: Prices of perishable food items are collected weekly; prices of manufactured or processed food items are collected monthly. Cost of services and other items which are less likely to have frequent price changes in a short time interval, price data are collected quarterly.

Reference period for data collection: Perishable food items: weekly collection is every Friday or Thursday if Friday happens to be a holiday; Processed food items: monthly collections are done around the 15th (or Wednesday closest to 15th) of the month; Services: quarterly collections are done around the 15th of the middle month (i.e. around 15th of February for 1st quarter, 15th of May for 2nd quarter, 15th of August for 3rd quarter and 15th of November for 4th quarter).

Methods of Price Collection

- Personal data collection

Treatment of:

Discounts and sales prices: Discounted prices are not taken into account unless they apply to all consumers.

Period for allowing imputed missing prices: Imputed missing prices are allowed up to six months.

Disappearance of a given type or quality from the market: Items that are persistently unavailable (for six months) are substituted with new ones of similar quality, unit and price range. This is done by comparing the specifications of the old item with the in-coming one.

Quality differences: Quality changes and appearance of new products are treated as new items.

Appearance of new items: Quality changes and appearance of new products are treated as new items.

Treatment of seasonal items and seasonality

Treatment of housing
F: Computation

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

Formula to aggregate elementary indices to higher-level indices: The index is calculated using the base weighted Laspeyres chained linked formula. In the Laspeyres Index ($L$), prices are weighted by the values associated with the base period (month) before being summed, as follows:

$$\text{Index (}L\text{)} = \frac{\sum p_j q_0}{\sum p_0 q_0} \times 100 \quad \text{or} \quad \sum \frac{p_j}{p_0} \times W_0 \times 100$$

where

$p = \text{Price of an item};$

$p_j = \text{Current period (month or year) price};$

$p_0 = \text{Base period (month or year) price};$

$q_0 = \text{Base period (month or year) quantity};$

$\Sigma$ denotes the sum, for all items, of their individual products of $p$ and $q$ (or price ratios); and in the alternative expression,

$W_0$ is the base period weight, which equals

$$\frac{p_j q_0}{\sum p_0 q_0}, \text{ (i.e. an item's expenditure / sum of all items' expenditure) }$$

$$\frac{p_j}{p_0} \times 100, \text{ is the price relative }.$$

The index is therefore the average of a series of such weighted price relatives, with a fixed base period.

Seasonally adjusted indices: No seasonal adjustment is made.

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The index of retail prices is intended to be released by the 25th of the month following the month of reference. Currently, it is produced within 3 months after the month of reference.

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

Documentation

Publications and websites where methodological information can be found: The methodology of the index has been published by the Barbados Statistical Service in May 2002: "Index of Retail Prices Revised (Base: July 2001=100) Methodology: Construction and Computation. The link to methodology is: http://www.caricomstats.org/Files/Methodologies/CPI/Barbados%20CPI%20in%20Standard%20format.pdf.

I: Other Information

Completed by ILO in 2013.

Belgique

A: Identification

Title of the CPI: Indice des prix à la consommation

Organisation responsible: SPF Economie, Direction générale Statistique et information économique, direction thématique économie

Periodicity: Mensuelle

Price reference period: 2004

Index reference period: 2004

Weights reference period: 2004

Main uses of CPI: Indexation of wages, pensions and/or social security payment, indexation of rents, contracts and/or other payments, 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, households of nationals located abroad 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;
- 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)

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;
- Second hand goods purchased;
- 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: L’IPC mesure la variation du niveau des prix par rapport à une période de référence pour un panier de produits et services représentatifs de la consommation des ménages.

Definition of consumption expenditures: Les dépenses monétaires de consommation finale des ménages sont prises en compte. Celles-ci incluent donc les dépenses consacrées à l’acquisition de biens et de services en vue de la satisfaction directe de la consommation des ménages.
Classification: COICOP (mais les boissons alcoolisées sont reprises dans le groupe 1.2)

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys and consumer surveys.

Frequency of weight updates: Every two years

Price updating of weight reference period to the index reference period: Les coefficients de pondération et les prix de base se réfèrent tous les 2 à l'année 2004. Les pondérations des groupes de produits restent fixes pendant 8 ans. A l'intérieur des groupes de produits, les pondérations sont revues tous les 2 ans pour les groupes dans lesquels des produits sont ajoutés ou retirés du panier de référence de l'indice (cf question 23)

Weights for different population groups or regions: No.

D: Sample design

Sampling methods:

Localities: Stratified sampling with simple random sampling in each stratum

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

Products: Judgmental sampling

Frequency of sample updates:

Localities: Samples of localities and outlets are updated every 8 years. The sample of products are updated every 2 years.

Outlets: Samples of localities and outlets are updated every 8 years. The sample of products are updated every 2 years.

Products: Samples of localities and outlets are updated every 8 years. The sample of products are updated every 2 years.

If sample updates are irregular indicate when last updates were introduced: Décembre 2005

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Pas d'application pour les points de vente et les produits (échantillonnage discrétionnaire). Echantillonnage des localités basées sur une étude des pôles d'attractions commerciaux.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Les descriptions des produits fournies aux enquêteurs sont
suffisamment précises pour l'enquêteur. Les produits ne répondant pas à la définition sont éliminés lors de la collecte des données. Les enquêteurs ont pour consigne de relever des prix pour chaque niveau de qualité (marque de distributeur, marque discount, marque propre).

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Localities: 65, Outlets: 11,000, Price observations: 125,000

**Frequency with which prices are collected:** Alimentaire, carburants, combustibles liquides, produits pour hygiène personnelle, produits d'entretiens: hebdomadaire. Electrique, gaz naturel, meubles, vêtements, produits techniques (multimedia, audio-vidéo,...): mensuel. Loyers: mensuels en fonction des règles légales concernant l'indexation des loyers

**Reference period for data collection:** La période de référence est mensuelle pour tous les articles repris dans le panier de référence de l'indice.

**Methods of Price Collection**

- Personal data collection for produits disponibles en grande surfaces, services prestés par des indépendants
- Mailed questionnaires for loyers privés
- Internet for PC, transports publics, loyers sociaux
- Official tariffs for tarifs administratifs (ex: timbres poste, prix de l'eau, soins de santé, frais pour la délivrance de passeport)
- Brochures ou catalogues for voitures neuves, voyages touristiques

**Treatment of:**

**Discounts and sales prices:** Pris en compte si le prix réduit est accessible à tous les consommateurs, soldes officiels de janvier et juillet non pris en compte

**Black market prices:** Not collected.

**Second hand purchases:** Not included.

**Missing or faulty prices:** Les prix des produits frais (fruits, légumes poissons) sont extrapolés à partir de la valeur du mois précédent et en tenant compte de l'évolution des prix observés dans les autres magasins de la même localité ou dans les autres localités si nécessaire

Period for allowing imputed missing prices: Pas de limite fixée dans les procédures de calculs mais la liste des prix estimés est vérifiée régulièrement et les points de vente sont remplacés si nécessaire (en cas de fermeture de magasins)
Disappearance of a given type or quality from the market: Dans la mesure du possible, les produits sont remplacés par des variétés comparables afin de pouvoir effectuer une comparaison directe. Le cas échéant, la technique du bridge overlap est appliquée.

Quality differences: Bridged overlap pour la plupart des produits, option pricing et bridge overlap pour les voitures neuves.

Appearance of new items: Le panier de référence est mis à jour tous les 2 ans sur base des derniers résultats de l'enquête sur les budgets des ménages. Les produits ou services représentant une dépense supérieure à un pro-mille sont ajoutés.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Produits frais (fruits, légumes poissons), vêtements, voyages touristiques à l'étranger

Seasonal food items: Seasonal food items are included in the CPI using variable weights approach: the weights vary over the year.

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. Les coefficients de pondérations sont constants toute l'année et à chaque vêtement d'hiver correspond un vêtement d'été avec une pondération identique)

Treatment of housing

Treatment of owner-occupied housing: Les logements occupés par les propriétaires ne sont pas couverts.

Types of dwellings covered by the rent data: Logements sociaux et logements privés (appartements et maisons). Les prix moyens par société de logements sociaux sont collectés mensuellement. Les loyers privés sont collectés annuellement à la date d'indexation théorique du loyer en fonction de la législation en vigueur à ce sujet.

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: Moyennes arithmétiques pondérées (indice de Laspeyres à base fixe)

Formula of aggregating regional/population group indices into national index: Moyennes arithmétiques pondérées (indice de Laspeyres à base fixe)

Monthly and annual average prices: Les prix régionaux et nationaux sont une moyenne pondérée des indices des différentes localités dans lesquelles les prix sont relevés. Les moyennes par localité et les moyennes annuelles sont des moyennes arithmétiques simples.
**Seasonally adjusted indices:** Pas d'ajustements saisonniers

**Software used for calculating the CPI:** Logiciel développé spécifiquement pour le calcul de l'indice composé de plusieurs modules basés sur Java (traitement des relevés de prix effectués dans les magasins), DB2 (base de données) et SAS (pour le calcul)

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** Système de détection des variations anormales lors de l'encodage des données

**Control procedures used to ensure the quality of data processed:** Des listings reprenant les plus fortes variations de prix sont automatiquement générés et vérifiés.

**H: Documentation and dissemination**

**Level of detailed CPI published**

**Online:** All items CPI, Division-level (12 Divisions), Group-level app. 40 groups, 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:** Un prix moyen est publié pour tous les produits relevés dans les différents magasins répartis sur le territoire belge (produits alimentaires, vêtements, produits et services pour l'hygiène personnelle, meubles, carburants, combustibles).

**Documentation**

**Publications and websites where indices can be found:** Site Web de la DG Statistique et information économique
(http://statbel.fgov.be/fr/statistiques/chiffres/economie/prix_consommation/ )

**Publications and websites where methodological information can be found:** Brochure 'L'indice des prix à la consommation base 2004' (cf http://statbel.fgov.be/fr/statistiques/chiffres/economie/prix_consommation/indices_prix_consommation/base_2004-100/ )

**I: Other Information**

Reported by the country in 2012.

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**Belize**

**A: Identification**
Title of the CPI: Consumer Price Index

Organisation responsible: Statistics Institute of Belize.

Periodicity: Quarterly

Index reference period: February 2011 = 100


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 and deflate household expenditures in national accounts.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Urban areas

Population coverage: Resident households of nationals.

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

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: A Consumer Price Index measures changes in the prices of goods and services that households consume. Such changes affect the real purchasing power of consumers’ incomes and their welfare. It assists in measuring the inflation rate, which is the percentage change in the price level from one period to another.

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: Above 5 years
D: Sample design

E: Data Collection

Approximate number of localities, outlets and price observations: Price observations: 10,000

Frequency with which prices are collected: Prices are collected quarterly during February, May, August, and November. Price collection is undertaken over one and a half weeks and is scheduled so that the midpoint of the collection period is the 15th day of the month. Household rental prices are collected twice yearly during February and August. The prices for all items, including perishable goods, are collected exclusively during the one-and-a-half-week collection period and price collection procedures are restricted to personal visits to the outlets.

Methods of Price Collection

- Personal data collection

Treatment of:

Missing or faulty prices: The price of the missing product is imputed based on the movement of prices of the other items within the group.

Disappearance of a given type or quality from the market: If an item price is unavailable, the price collectors sample a similar product. If the product does not reappear, the similar product initially sampled replaces the missing product in the index.

Treatment of seasonal items and seasonality

Treatment of housing

Treatment of owner-occupied housing: Owner occupied housing is not included in the CPI.

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: The index uses the modified Laspeyres structure to calculate the district indices.

Formula of aggregating regional/population group indices into national index: The national CPI is calculated by a two-stage process. At the first stage, the indices for the eight districts are calculated based on the expenditure weights of urban households. The expenditure weights are for the overall sample and not for the individual districts. At the second stage, the national index is calculated as a weighted index of the district index, with the number of households in each district being used as the weights.
G: Editing and validation procedures

Control procedures used to ensure the quality of data processed: The statistician responsible for the CPI conducts spot checks of the prices of the more volatile items. In addition, the computer program that generates the index contains range checks that are designed to flag outliers in the recorded prices.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI data is disseminated about six weeks.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation

Publications and websites where indices can be found: http://www.statisticsbelize.org.bz/

I: Other Information

Completed by ILO in 2013.

Benin

A: Identification

Title of the CPI: Urban area Consumer Price Index

Organisation responsible: National Institute of Statistics and Economic Analysis (INSAE)

Periodicity: Monthly

Index reference period: 2008

Weights reference period: 2008

Main uses of CPI: Main inflation indicator used for monetary policy.

B: CPI Coverage

Geographical Coverage
Weights: Main cities/metropolitan areas/regions

Price collection: Main cities/metropolitan areas/regions

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

D: Sample design

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 974, Price observations: 6,000

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: 10 days

Level of detailed CPI published

Paper publication: All items CPI

Documentation

Publications and websites where indices can be found: Monthly Bulletin on the Consumer Price Index in WAEMU Member Countries.

Publications and websites where methodological information can be found: http://www.izf.net/izf/Institutions/Situation/AfriqueOuest/dernier_ihpc.htm

I: Other Information

Completed by ILO in 2013.
Bermuda

A: Identification

Title of the CPI: Bermuda Consumer Price Index

Organisation responsible: Department of Statistics, Government of Bermuda

Periodicity: Monthly

Price reference period: 01/04/2006

Index reference period: 01/04/2006

Weights reference period: 01/05/2004

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 and deflate household expenditures in national accounts.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Urban areas

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

Population groups excluded: Institutional households, low income households and high income households.

Consumption expenditure includes:

- Food consumed away from home;
- Purchase of owner-occupied housing;
- Mortgage repayments;
- Housing maintenance, minor repairs;
- Major repairs, conversions and extensions to owner occupied housing;
- Purchase of gifts of goods and services given to others outside the household;
- Luxury goods;
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- Life insurance premiums;
- 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:

• 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;
• Mortgage interest;
• Financial services (including fees for financial advice, brokerage fees);
• Interest payments (excluding mortgage interest payments);
• 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: CPI is a statistical tool used for measuring changes in the general level of prices of consumer goods and services purchased by private households. The index measures price movements of a given quality and quantity of goods and services. The index is used to index wages, salaries and rents and to deflate household expenditure in national accounts and in the value of retail sales.

Definition of consumption expenditures: The purchase of goods and services that households use directly or indirectly to satisfy their own needs and or wants.

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: Above 5 years

Price updating of weight reference period to the index reference period: No. There was a two year lag between the development of weights and implementing them without adjustment into the Bermuda CPI.

Weights for different population groups or regions: No.

D: Sample design

Sampling methods:
Localities: Judgmental sampling

Outlets: Judgmental sampling

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:

Outlets: At the time of conducting HES, every ten years. Outlets and products/services replaced as required due to outlet closure or products/services being discontinued.

Products: At the time of conducting HES, every ten years. Outlets and products/services replaced as required due to outlet closure or products/services being discontinued.

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Subjective sampling is used to select outlets for pricing goods and services. The department of statistics applies its judgement and knowledge. The main sources of information are the retails sales data and the business register which serves as a comprehensive frame from which to retail outlets.

Volume sellers are selected within the outlets. Where consumers have a range of purchase options pricing officers select the top three or four items based on sales volume information from the outlet manager. Item specifications are noted and print on the survey sheets.

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 90 per year, Price observations: 4,000 per year

Reference period for data collection: Food – second week of each month.

Methods of Price Collection

- Personal data collection for food from grocery stores, household supply products, toiletries and cosmetics, clothing & footwear, tobacco & liquor

- Mailed questionnaires for rents, household goods and services, airfares and hotel lodging, overseas university tuition, prescribed and over-the-counter medicines, electricity costs.

- Telephone interviews for hairstyling, dry-cleaning and fuel.

- Official tariffs for vehicle licensing, postage fees and transportation fares.

Treatment of:

Discounts and sales prices: Specials and discounts prices are used for compilation of the index.

Black market prices: Not collected.

Second hand purchases: Not included.

Missing or faulty prices: Missing prices are handled by carrying forward the previous observation for no more than three pricing periods. The price of missing “seasonal” items is imputed for the period that they are not in season.

Period for allowing imputed missing prices: 3 months.

Disappearance of a given type or quality from the market: If product or service is discontinued a replacement of similar quality is incorporated into the index. Pricing does not continue for an item of a given type or quality which has disappeared from the market. Pricing officers are required to liaise with outlet representative to select a replacement that is of comparable quality to the item that disappeared.

Quality differences: No quality adjustment is made.

Appearance of new items: New items are incorporated into the index as replacement items.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Fresh fruits and vegetables, clothing.

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:** The method used to impute price development in out-of-season periods is carrying forward the last observed price.

**Treatment of housing**

**Treatment of owner-occupied housing:** Rent information is collected from a sample of residential rental management outlets. This information is used as a proxy for changes in the cost of owner-occupied housing.

**Types of dwellings covered by the rent data:** The residential rental management outlets report prices on a monthly basis. The sample of residences on which the outlets provide price information is a representative sample of no more than forty properties on the portfolio of properties under management when the rent price survey began and is stratified by the size of the residential unit, i.e. the number of bedrooms.

**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:** Sum of the elementary indices for the current period calculated on the base weight.

**Seasonally adjusted indices:** No seasonal adjustment.

**Software used for calculating the CPI:** Microsoft Excel 2007

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** i) Specifications for priced items are included on every price survey sheet; ii) Pricing officers are trained in how to handle missing items, discounts, seasonal items and replacements; iii) Price data is reviewed by senior pricing officer before they are entered into the computer program; iv) Computerized price data is crosschecked against collected price data by two officers.

**Control procedures used to ensure the quality of data processed:** The computer programme is designed to flag price changes that exceed +/- 15% when comparing the current price to the previous price.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** 5 weeks after the end of the reference month.

**Level of detailed CPI published**
**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Separate indices published for specific population groups:** No

**Type of products for which average prices are calculated and disseminated:** None

**Documentation**

**Publications and websites where indices can be found:** Government of Bermuda, Department of Statistics – Consumer Price Index – Month/Year; Internet website: [www.statistics.gov.bm](http://www.statistics.gov.bm)

**Publications and websites where methodological information can be found:** Using the Consumer Price Index, [www.statistics.gov.bm](http://www.statistics.gov.bm)

**I: Other Information**

Reported by the country in 2012

**Bhutan**

**A: Identification**

**Title of the CPI:** Consumer Price Index for quarter ending

**Organisation responsible:** National Statistics Bureau (NSB)

**Periodicity:** Quarterly

**Price reference period:** 3rd Quarter 2003 = 100

**Index reference period:** 3rd Quarter 2003

**Weights reference period:** 2003

**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 and deflate household expenditures in national accounts.

**B: CPI Coverage**

**Geographical Coverage**

**Weights:** Urban areas
Price collection: Urban areas

Population coverage: Resident households of nationals.

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;
- Purchase of owner-occupied housing;
- Housing maintenance, minor repairs;
- 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);
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- Life insurance premiums;
- Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
- 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

Consumption expenditure excludes:

- Mortgage repayments;
- Mortgage interest;
- Gambling expenditure, gross of winnings;
- Second hand goods purchased;
- Expenditures abroad

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: CPI is a measure of changes in the average retail prices of a market basket of goods and services purchased by households for day-to-day living. It shows how much, on average, prices of goods and services have increased or decreased from a particular reference period. CPI plays an important role in the national policy making, both in the economic and social spheres. It is used for a wide variety of purposes: These include measuring the rate of inflation; as an indicator for the performance of the economy; for indexation of wages and social security benefits; as a basis for fiscal and monetary policy interventions by the governments. It is also used as a deflator to express
Value series in real terms, i.e., measuring the change in actual volume of transaction by removing the effects of price changes.

**Definition of consumption expenditures:** Household expenditure for the BLSS data were obtained by adding the various goods and services purchased, consumed from own production and received as gifts. Consumption expenditure of all these goods and services reported in the different parts of the BLSS questionnaire was converted into values (Ngultrum), expressed as annual values, and then aggregated together to obtain a measure of annual household expenditure. The various components of consumption expenditure used to construct this aggregate had been grouped into three main groups: (i) Food items, (ii) Non-food items and Housing Services.

**Classification:** COICOP (Classification of individual consumption by purpose)

**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:** No

**D: Sample design**

**Sampling methods:**

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

Outlets: Judgmental sampling

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

**Frequency of sample updates:**

Localities: At the time of conducting HES.

Outlets: At the time of conducting HES.

Products: At the time of conducting HES.

**If sample updates are irregular indicate when last updates were introduced:** 2003

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:** Data is collected from 22 urban towns in Bhutan covering all the 20 districts and two major towns. Outlets are selected based on location and popularity of the establishment. Items in the market basket are determined based on the items available in the capital city. The whole list of items is sent to the districts in a common questionnaire but enumerators within the districts are asked to quote prices which are available only. Variety of goods is not a problem in Bhutan. Since majority of goods are
imported from India, only popular brands are imported. So, whatever specified for an item is available.

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Localities: 22, Outlets: 210, Price observations: 45

**Frequency with which prices are collected:** Vegetables and fruits items are collected on monthly basis and other remaining items are collected on quarterly basis.

**Reference period for data collection:** Second week of each month for vegetables and fruits. Prices for other items are collected during the second week of the middle month of each quarter.

**Methods of Price Collection**

- Personal data collection for all items.

**Treatment of:**

**Discounts and sales prices:** They are used in the calculation of the index.

**Black market prices:** Yes.

**Second hand purchases:** Not included.

**Missing or faulty prices:** Missing prices are handled by carrying forward the previous observation.

Period for allowing imputed missing prices: Missing prices are carried forward continuously.

**Disappearance of a given type or quality from the market:** When replacing an item, it is considered the same with the previous item.

**Quality differences:** No quality adjustment is made.

**Appearance of new items:** As the basket of goods and services is fixed, no new items are incorporated in the basket.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** Fresh fruits and vegetables are highly volatile and seasonal in character. That is why their prices are collected monthly. When the items are missing for a certain season, their prices are carried forward until the reappearance of the product. Non-food items do not change much and so is the clothing. There is not much seasonality for clothing in Bhutan.
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: The method used to impute price development in out-of-season periods is carrying forward the last observed price.

Treatment of housing

Treatment of owner-occupied housing: Owner-occupied housing is not included in the sample of outlets. Data is collected from person’s who actually pay rents.

Types of dwellings covered by the rent data: Data are collected from traditional dwellings and modern (concrete) buildings. The method is similar to collecting data of any other item in the basket and it is collected on quarterly basis.

F: Computation

Formula used for calculation of elementary indices: The arithmetic average of the price ratios (Carli index) (Direct form)

Formula to aggregate elementary indices to higher-level indices: Weights multiplied by the simple average of price relatives.

Monthly and annual average prices: Simple arithmetic average

Seasonally adjusted indices: No seasonal adjustment.

Software used for calculating the CPI: Microsoft Excel

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Validation of collected data totally depends on the morale and ethics of the field data collectors.

Control procedures used to ensure the quality of data processed: Any data that are construed to be anomalous are confirmed from the field data enumerators through telephone conversation.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: After receiving the data from the field, it takes around 3 weeks to process the data and finally release the CPI publication.

Level of detailed CPI published
Paper publication: Division-level (12 Divisions), Group-level app. 40 groups, Class-level (100 classes)

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

Documentation

Publications and websites where indices can be found: Internet website: www.nsb.gov.bt
Average prices are also available on the above website.

Publications and websites where methodological information can be found: Internet website: www.nsb.gov.bt

I: Other Information
Reported by the country in 2012.

Bolivia

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Instituto Nacional de Estadística

Periodicity: Monthly

Index reference period: 2007 = 100

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

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights
**Definition of the CPI and its objectives:** The Consumer Price Index (CPI) is a measure of the time evolution of prices of a set of goods and services, classified by sector, consumed by a household, representative of the average consumer habits of an entire society.

**Classification:** COICOP (Classification of individual consumption by purpose)

**Sources of weights:** Household expenditure surveys.

**Frequency of weight updates:** Above 5 years

**Weights for different population groups or regions:** City weights are computed.

**D: Sample design**

**E: Data Collection**

**Frequency with which prices are collected:** Prices are collected monthly.

**Methods of Price Collection**

- Personal data collection

**Treatment of seasonal items and seasonality**

**Treatment of housing**

**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:** The formula used for calculating the CPI is the Laspeyres index of prices of a fixed basket of goods and services.

**G: Editing and validation procedures**

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** The data are usually disseminated on the 1st working day of the following month.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**

I: Other Information

Completed by ILO in 2013.

Bosnia and Herzegovina

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Agency for Statistics of Bosnia and Herzegovina

Periodicity: Monthly

Index reference period: 2010 = 100


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 and computation of purchasing power of households.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Consumption expenditure excludes:

- Foods produced for own final consumption;
- Other goods produced for own final consumption;
- Services produced for own final consumption;
- Gambling expenditure, gross of winnings
C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The consumer price index measures the change in prices of a basket of goods representative of the monetary household consumption expenditure of all households resident in the territory of Bosnia and Herzegovina.

Classification: COICOP (Classification of individual consumption by purpose) at the 6-digit level

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: Weights are price updated every year according to changes in prices in a previous year.

D: Sample design

Sampling methods:

Outlets: Judgmental sampling

Products: Judgmental sampling

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Locality selection: The localities chosen for the data collection in Bosnia Herzegovina are selected taking into account their weight in terms of population and their role with respect to the geographical areas they belong to (Canton or region capital or main centre). The other relevant aspect at this stage of selection is the presence of a statistical local office that is able to carry out the collection of the elementary quotations in the field and check them before sending the data to the statistical central offices in Sarajevo and Banja Luka or to BHAS.

Outlet selection: The judgmental approach is the most adopted sampling procedure to identify the outlets where the data collection is to be carried out. In the future greater attention has to be dedicated to the cut off approach. The judgement approach takes into account three criteria; i) the number of selected outlets depends on the demographic and geographic width of the town; ii) the type of outlet has to be selected on the basis of the weight of each typology in the local distribution; iii) outlets have to be selected so as to take into account the prevalent behaviour of consumers: the more frequented outlets have to be included in the sample.

Sample of products: The basket of products are selected in order to represent all the different typologies of products available in the market, to cover the entire spectrum of consumption that is summarized in COICOP classification and to take into account, the weights of the COICOP categories (the greater the weight of the category, the wider the spectrum of products belonging to that category). The assumption underlying the selection of the basket is
that the prices of products belonging to the same category show a common profile, so that changes in the price of one of them should reflect the changes in the prices of the entire category.

Item selection: The detailed description of each product helps the collector identify the item for which the price has to be recorded. Variety, brand and package are important in fixing the level of the price of a product, and, depending on their mix, prices for the same product may vary noticeably. Therefore the mix of information regarding product, outlet, variety, brand and quantity collected identifies exactly the elementary item for which prices have to be collected monthly or bimonthly.

E: Data Collection

Approximate number of localities, outlets and price observations: Price observations: 21,000

Frequency with which prices are collected: Fresh fruits and vegetables prices are collected twice a month. Other product’s prices are normally recorded monthly.

Reference period for data collection: Other products: Prices are recorded between 5th and 21st day of the month. Agricultural products: prices are collected in the 1st and 3rd week of a month.

Methods of Price Collection

- Personal data collection

Treatment of:

Discounts and sales prices: Reduced prices are not included in the price collection.

Missing or faulty prices: Missing prices are replaced by previously observed prices.

Period for allowing imputed missing prices: Estimated missing prices are allowed up to a maximum of 2 months.

Disappearance of a given type or quality from the market: Replacement is done for items that are no longer available on market.

Quality differences: The replacement of an item introduces the issue of quality adjustment. The quality adjustment method adopted is the overlap approach where the value of the quality change between the elementary item and the replacing one is assessed in terms of difference in price between the two items in a period when both items are available.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Natural seasonality, in particular, affects fresh food products such as fruits and vegetables, clothing and footwear, whereas conventional seasonality affects products such as education services, hotels,
transports, tourism services. Prices of seasonal products have to be repeated in the months when the products are not available. A special approach is used for clothing and footwear since these categories of products are different in winter and summer. In this case, for the previous month the price of the item available in the previous similar season has to be entered, if the two items are comparable in terms of brand and materials used (type of garment, quality of leather, etc.).

**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:** The method used to impute price development in out-of-season periods is carrying forward the last observed price.

**Treatment of housing**

**Treatment of owner-occupied housing:** Imputed rents as measure of the owner occupier housing costs is excluded from CPI.

**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:** The aggregate indices are calculated by a Laspeyres-type formula.

**Seasonally adjusted indices:** The data are not seasonally adjusted.

**G: Editing and validation procedures**

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** The CPI is published on the BHAS website on the 15th of the month following the reference period. The entities disseminate the Entity CPI on the 10th day after the end of the reference month on their respective websites.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**
Publications and websites where indices can be found: Monthly; Press release CPI in Croatian, Serbian and Bosnian and English languages; Other: Annual bulletin on consumer prices that provides the monthly series of the CPI for the most recent year by COICOP divisions.

Publications and websites where methodological information can be found: The methodology (short version) is available on the Press releases. Full version is available on website: www.bhas.ba/metodoloskidokumenti/Metodologija tom1 - engleski.pdf

I: Other Information

Completed by ILO in 2013.

Botswana

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Central Statistics Office

Periodicity: Monthly

Index reference period: 2006 = 100

Weights reference period: 2002/2003

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

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Population groups excluded: Institutional households.

Consumption expenditure excludes:

- Purchase of owner-occupied housing;
C: Concepts, definitions, classifications and weights

**Definition of the CPI and its objectives:** The Consumer Price index essentially measures the change over time in the cost of a fixed basket of commodities and services.

**Classification:** COICOP (Classification of individual consumption by purpose)

**Weights include value of consumption from own production:** Yes

**Sources of weights:** Household expenditure surveys.

**Frequency of weight updates:** Above 5 years

D: Sample design

**Localities:** Stratified sampling with PPS sampling in each stratum

**Outlets:** Judgmental sampling

**Products:** Judgmental sampling

**Frequency of sample updates:**

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:** Outlet selection: The outlets sampled are by purpose. Sampling of outlets is done from the business register.

E: Data Collection

**Approximate number of localities, outlets and price observations:** Outlets: 1,258, Price observations: 30,820

**Frequency with which prices are collected:** Prices for most items are collected monthly; Rent, accommodation and servant's wage - prices are collected quarterly.

**Reference period for data collection:** Prices for most items are collected from the 1st to the 2nd week of the month. Prices for rent, accommodation and domestic servants are collected quarterly in the last month of each quarter.

**Methods of Price Collection**

- Personal data collection

**Treatment of:**

**Discounts and sales prices:** Discounts and sales prices are recorded in case of temporary reductions.
Missing or faulty prices: Prices for temporarily missing and seasonal products for the new CPI are estimated by imputing the price. Hence, the PSU uses the change in the related class/group to estimate the missing price.

Disappearance of a given type or quality from the market: A permanently unavailable product is replaced with a similar item. If possible, the price for the replacement product is spliced onto that of the old product by obtaining the price for the overlap month. Otherwise, the price for the new product is used without any price statistics (Consumer Price Index) adjustment for quality differences.

Appearance of new items: New goods are not introduced into the sample as they gain market share. New goods are only introduced when there is a new household income and expenditure survey.

Treatment of seasonal items and seasonality

Treatment of housing

Treatment of owner-occupied housing: Not included in the CPI

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: The method used to calculate the indices is the traditional base-weighted Laspeyres formula.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Once the PSU receives the completed questionnaires, it visually inspects them for consistency checks. Last month’s price is compared with the current month’s price. Price collectors are asked for an explanation if the price change is over a certain percentage. Additionally, checks are conducted for mistakes such as price quotes written on wrong slots, very high or very low price quotes compared to the previous period price, zero or missing prices, shop deletions, and conversion of prices to the required quantities.

Control procedures used to ensure the quality of data processed: A range of price quotes or coding error threshold is employed to minimize processing errors. If any unusual price values appear, the outlet is contacted for price verification.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI is released 15 days after the reference date.

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)

Documentation


Publications and websites where methodological information can be found: Internet website http://www.cso.gov.bw

I: Other Information

Completed by ILO in 2013.

Brazil

A: Identification

Title of the CPI: Índice de Preços ao Consumidor Amplo (IPCA)

Organisation responsible: Instituto Brasileiro de Geografia e Estatística (IBGE)

Periodicity: Monthly

Price reference period: 2008/2009 = 100

Index reference period: 1993 = 100


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 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, low income households, high income households and 1 to 40 national minimum wages (37.4% of urban areas).

Consumption expenditure includes:

- Food consumed away from home;
- Housing maintenance, minor repairs;
- Second hand goods purchased (second hand motor cars 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 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;
- 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 purpose of consumer price indices is to provide a measure of change in prices of a fixed basket of products determined in the consumer expenditure survey.

Definition of consumption expenditures: The price collected is the price paid in cash, and refer only to the services and types of products described in the questionnaires, as well as those available at the point of purchase or in stock; services are those that can actually be
rendered, and services and types of products generally available to the public. Prices include taxes.

**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:** The weights are obtained from the consumer expenditure survey (2008 – 2009) and are updated on the basis of price changes since the reference date of the household budget survey, up to the application of the weights in the calculation of the indices. A base month is defined and automatically linked to the series.

**Weights for different population groups or regions:** The IPCA weights represent households in urban areas. The weights are compiled separately for different populations groups (1 to 40 minimum wages) and regions (11 areas).

**D: Sample design**

**Sampling methods:**


*Products:* Judgmental sampling

**Frequency of sample updates:**

*Outlets:* Continuous (on a rotating basis)

*Products:* Continuous (on a rotating basis)

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:** The register of respondents was obtained through the 1987/1988 points of purchase survey (PPS) carried out in households. The selection variable used was the frequency of mention by households and the size of the sample was defined on the basis of price variability. The 2008/2009 consumer expenditure survey provided types of establishments chosen by households per item surveyed. These two procedures together, guide the ongoing process of revising the register. The chosen outlets were defined on the basis of typical shopping pattern in the area for the types of priced products. Other respondents were defined from the sample of real estate agencies for the registers of rented housing. The registers of public utilities are obtained with government agencies. The businesses registers are obtained with associations of businesses or market place managers. The selection and the size of sample of products were selected to represent distinct categories of household spending from the consumer expenditure survey. The representative items must
be well defined so that changes in the recorded prices from month to month reflect only the pure change in price. The size of the sample was defined on the basis of price variability.

**Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office:** The price collectors are instructed to identify representative items only with specifications provided by the central office. Detailed descriptions for the collection of prices are provided for the most frequently sold types of each item. There are two types of product specification, one identifying a single price and the other for cases where more than one price is obtained for a given product per establishment, generating an average price for that product in the place of business.

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Localities: 11 regions, Outlets: 30,854, Price observations: 438,706

**Frequency with which prices are collected:** Food and beverage - weekly; Clothing - weekly; Household goods – weekly; Housing – weekly, except rent of residences (bimonthly); Transportation – weekly, except vehicle property tax (annually); Health and personal care – weekly; Personal expenses – weekly; Education – weekly, except schools, universities and technical courses (twice in the year); Communication – weekly.

**Reference period for data collection:** The reference period for data collection is weekly.

**Methods of Price Collection**

- Personal data collection for most of the items.
- Scanner data for medicines.
- Internet for airfares.
- Official tariffs for public utilities.

**Treatment of:**

**Discounts and sales prices:** They are taken if they apply to all consumers.

**Black market prices:** Not collected.

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

**Missing or faulty prices:** Missing prices are determined according to three criteria: i) imputation of the average price of the establishments that provided information for the month, when prices are similar among establishments; ii) imputation of the previous month’s price when price levels among establishments vary significantly; and iii) imputation of the average change in prices of similar items or products in the case of seasonal or temporary lack of prices.
Period for allowing imputed missing prices: 2 months

**Disappearance of a given type or quality from the market:** Products that become unavailable are replaced within two months, and are replaced with the most widely sold similar products. These new products are included in the calculation of the second month. In the case of temporary seasonal lack of prices, the above mentioned third criterion for imputing prices is used.

**Quality differences:** There is not a specific kind of adjustments for quality changes.

**Appearance of new items:** New items are included at the time of updating the basket of goods and services, when new household budget survey is conducted.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** Fresh fruits; vegetables and greens; cereals, pulse and oilseeds; and tubers, roots and vegetables.

**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:** The sample of dwellings is defined from the real estate agencies for all the types of dwellings. There are 34,000 respondents and approximately 3,000 rented residences included. Register of rented housing is obtained monthly.

**F: Computation**

**Formula to aggregate elementary indices to higher-level indices:** The aggregation of the basic levels to obtain indices for items, subgroups, groups and general index is Laspeyres formula. The weight used is obtained from the consumer expenditure survey and are updated on the basis of price changes since the reference date of the survey, up to application of the weights in the calculation of the indices. A base month is defined and automatically linked to the series.

**Formula of aggregating regional/population group indices into national index:** The national index is obtained by adding the regional indices using a weighted arithmetic mean. The weighting variable is the urban income of each of the 11 regions.

**Seasonally adjusted indices:** The seasonally adjusted index for households with an income of 1 – 40 minimum wages is made available each month using the X12-Arima method, following the methodology published in the Série de Relatórios Metodológicos, vol 16, 1996, “Sistema Nacional de Índices de Preços ao Consumidor – Índice de Preços ao Consumidor Amplo – Ajustamento Sazonal” [National Consumer Price Indices System – Comprehensive Consumer Price Index – Seasonal Adjustment].

**Software used for calculating the CPI:** Self developed programme.
G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Quality control of the data collection process is routine and consists of a visit to check from the team supervisor to an establishment where one of the field researchers has already collected price data.

Control procedures used to ensure the quality of data processed: Verification of the prices collected begins with a visual review of the questionnaires by field supervisors, which allows for immediate confirmation in the survey area. Next, the series of prices collected in the 11 areas is assessed by a centralized team at IBGE headquarters, made up of technical staff specialized by product group. The data validation is based on a computerized method of statistical price assessment data.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: 6 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), Basic Items

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

Restricted Access: Average prices

Separate indices published for specific population groups: No

Documentation


Publications and websites where methodological information can be found: Information on methodology for the production of consumer price indices is published in the Série de Relatórios Metodológicos (methodological reports), volume 14, 2007, fifth edition, in the “Sistema Nacional de Índices de Preços ao Consumidor – Métodos de Cálculo” (National Consumer Price Indices System – Methods of Compilation). Methodological information on how seasonal food items are included in the CPI is published in the Série de Relatórios Metodológicos (methodological reports), volume 32, 2005, in the “Sistema Nacional de Índices de Preços ao Consumidor – Métodos de Cálculo dos Itens Sazonais Alimentícios”.

I: Other Information

Reported by the country in 2012.
Bulgaria

**A: Identification**

*Title of the CPI:* Consumer Price Index

*Organisation responsible:* NSI

*Periodicity:* Monthly

*Price reference period:* 1995 = 100

*Index reference period:* 1995 = 100; previous month = 100; December, previous year = 100; the same month of the previous year = 100; Annual average CPI, 12 months from previous year = 100; Annual average CPI, previous year = 100.

*Weights reference period:* 2011

*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, 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;
- Purchase of gifts of goods and services given to others outside the household;
- Second hand goods purchased (second hand motor cars 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);
- Expenditures abroad
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;
- 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

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The consumer price index (CPI) is an official measure of the inflation in Republic of Bulgaria. It assesses the total relative change of prices of goods and services used by the population for their own household consumption and it is calculated by applying the structure of the final expenditures of Bulgarian households. The main source of information is the Households budget survey. CPI in year t is calculated with structure of expenditures for year t - 1.

Definition of consumption expenditures: The main source of information concerning the expenditures is the household budget survey (HBS) in the country. According to the HBS methodology the household expenditure includes all resources spent by the household and its members during the surveyed period. The expenditures are estimated in a total monetary form. Total expenditure includes monetary and valued expenditure in kind. For the aim of CPI weights, only the final monetary consumption expenditures of Bulgarian households for private (non-production) purpose is used, structured by Classification of Individual Consumption by Purpose (COICOP-HICP).

Classification: COICOP (Classification of individual consumption by purpose)

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys and additional data sources.

Frequency of weight updates: Annual
Price updating of weight reference period to the index reference period: CPI is calculated with index, price and weight reference ‘previous year’ = 100. There is therefore no need to price update weights.

Weights for different population groups or regions: No.

**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

*Products*: Judgmental sampling

**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:** Localities are sampled according to the number of population and according to the volume of retail sales of each locality. CPI includes 27 district centres, where the prices are collected. Furthermore, the sample is stratified between the district centres which are distributed in three groups: capital, big and small centres. The main principle is to have different numbers of price observations in each district centre according to the population within.

The number and the structure of the observation points are done in a way that can ensure the optimum number of prices collected, which are sufficient to represent national prices for any of observed group of goods and services. The number of observation points is determined proportionally to the population in the selected district centres and to the volume of retail sales in the relevant outlets. The sample includes outlets, which have a large volume of retail sales and supply a variety of goods, representative of the relevant elementary aggregates groups. The main types of trade are covered, including supermarkets, hypermarkets, general and specialized stores and market stalls. Mail order and internet shopping are not included in the index (until now they are not relevant). Prices for PCs, mobile phones, fixed phone services and package holidays are collected from internet sites of the respective supplies.

**Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office:** There are detailed specifications in the case of cars, medicines, fuels and some food and services. For the most of the products looser specifications are used. In these cases the specific variety of goods/services is selected by regional price collectors. They are instructed to select the typical product variety which is the
most sold in the sampled outlet and which meets as close as possible the specifications of the product.

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Localities: 27, Outlets: 6,086, Price observations: 35,463

**Frequency with which prices are collected:** All items – weekly except “Other fees in respect of personal transport equipment” (week vignettes and annual vignettes for road transport) – annually; and Education (“Tuitons for state university/private universities/college”) – twice a year.

**Methods of Price Collection**

- Personal data collection for all other items.

- Telephone interviews for postal services.

- Internet for new cars, used cars; fees in respect of personal transport equipment (weekly and annual vignettes; Low-cost airlines tickets; telephone, telefax equipment and the like (mobile phones); fixed phone services; mobile phone services; personal computers and accompanying equipment; pre-recorded recording media; games, toys and hobbies (computer game and video game); books; Package holidays; financial services n.e.c. (ATM withdrawals fees).

- Official tariffs for electricity; legal services; administrative fees.

- Combination: tariff, mail and telephone for insurance connected with transport; other insurance (life insurance).

**Treatment of:**

**Discounts and sales prices:** Included with a note “promotion”.

**Black market prices:** Not collected.

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

**Missing or faulty prices:** In case of temporarily missing price within a product, the imputation is done in the 1st and in the 2nd month. For estimation of the missing price the method of matching samples is used and the short-term approach is applied. Imputation is done using the short-term price relative. If the price is still missing in the 3rd month, the price collector is obliged to select a replacement.

Period for allowing imputed missing prices: For all-seasonal products prices could be missing for no more than two successive months. In the third month if the product-offer is still missing, the price collector is obliged to select a replacement keeping the following principles: i) Choose another product with the most similar quality and the one that accounts for the substantial amount of sales value in the outlet; ii) Ask for the price of the new
replacement product in the previous month. When replacing an outlet, price collectors are told to choose a new one, which has to be: a) as close as possible to the old outlet; b) of the same type; and c) as similar as possible to the old outlet in term of their sales values.

**Disappearance of a given type or quality from the market:** When given product disappear from the market the price collectors have to replace it with another product with the most similar quality and the one that accounts for the substantial amount of sales value in the outlet. There are two possible approaches for calculating of the new product’s price: direct comparison (when quality and characteristics remained unchanged) or quality adjustment (when there are differences in quality or in some of the product’s characteristics).

**Quality differences:** The most influential methods with dealing with quality change of products are: i) Annual overlap. For many of the products new samples are drawn each year during the annual revision of consumer basket. December is used as linking month and then the dual price collection is done. The prices are collected both for the old and for the new sample. Quality differences between these two samples are then eliminated by overlap method called “annual overlap”. ii) Direct comparison. Price collectors are instructed to measure the price for the same variety throughout the year and if the variety disappears permanently from the market, they should choose another one with the most similar quality. In these cases, direct comparison method is applied, because of the minor difference in quality between the old and the new variety. iii) Implicit quality adjustment methods. In some particular cases, the second approach is not applicable, due to the fact that quality difference between old and new product is “significant”, and implicit quality adjustment methods are applied. Overlap, bridged overlap (class-mean imputation) and option cost pricing are used. Quality adjustment procedures are done centrally by the staff in central office. At regional level, price collectors do not make any quality adjustments; they are only instructed to report to central office for the all cases of considerable quality changes of the replacement products.

**Appearance of new items:** The procedures for identification of newly significant goods and services is based on: i) Analyses of household budget survey data on the structure of household expenditures; ii) Price collectors information; iii) Research and consultations with suppliers; iv) PPP survey; and v) Eurostat list. Newly significant goods and services are introduced at the end of each year (in December) during the annual revisions of consumer basket.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** Seasonal items are pre-defined at the beginning of each year. Seasonal items for 2012 are: fresh fruits and vegetables, clothing and footwear. The fixed-weight approach is used for determining of the weights for seasonal items i.e. during the whole year indices of seasonal products are calculated with fixed weights. During the ‘out-of-season’ months, for missing fruit and vegetables an imputed price is calculated, using the price movements of the fresh products that are available on the market (that are ‘in season’). The method is applying under keeping the following requirements: (1) short-term approach is used and (2) careful choice of these seasonal goods each month is done, for which will apply method of imputed price and determine the concrete product or consumption group, whose index will be used for extrapolation.
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 using price development of in-season products and all available products, including non-seasonal items, i.e. ASE and CSE.

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: Actual and social rentals of most common type of rented dwellings: one bedroom apartments, 40-50 square metre, with bathroom and lavatory, with and without central heating prices for social rentals are collected from administrative decisions of the municipalities or administrations as well as from tenant. Prices of actual rentals are collected from tenants, landlords or firms. In cases when the respondent is tenant or landlords, the price development of the current dwelling is observed for the whole term of the contract (current or old tenancy). When firms are the respondents then prices comprise current as well as new tenancy. For each dwelling the price is calculated once in a year and is observed the following 11 months.

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 indices for the groups of 4th, 3rd, 2nd and 1st level are compiled as Laspeyres-type indices:

\[
I_{i/h(m)} = \frac{\sum_{i=1}^{n} I_{i/b(m+1)} W_i^{(m+1)}}{\sum_{i=1}^{n} W_i^{(m+1)}}, \text{ where:}
\]

\(m\) is the hierarchical level \((m = 4 \text{ for group of goods, } m = 3 \text{ – class, } m = 2 \text{ – group, } m = 1 \text{ – division and } m = 0 \text{ – overall CPI})\);

\(n\) is the number of groups from \((m+1)\)-th hierarchical level, going into the group from \(m\)-th hierarchical level;

\(W^{(m+1)}\) - base weights.

Formula of aggregating regional/population group indices into national index: National stratification is used.
Monthly and annual average prices: The average national price for every good or service in the consumer basket is compiled as the geometric mean of all prices (real and imputed):

\[ P_t = \sqrt[n]{\prod_{i=1}^{n} P_i^t}, \]

where:
- \( P_t \) - denotes national price for the current month;
- \( P_i^t \) - price of i-th item;
- \( n \) - number of recorded and imputed prices.

Seasonally adjusted indices: No

Software used for calculating the CPI: Specially designed software for the purpose of CPI/HICP data management and calculations.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Data quality checks and validation work is distributed between central office and regional statistical offices, but most of the data editing work is carried out at the national level. The data validation process at regional offices can be divided into two stages. The first one takes place during the collecting and entering of the collected prices into the computer system. The second stage takes part after the data has been typed and processed into the system.

Control procedures used to ensure the quality of data processed: Information is checked and validated by specialists in regional statistical offices and if necessary, prices are cross-checked in outlets. The validation of the data in the central office is done after the first index calculation. The prices are checked and validated by 3 people at the CPI division. Data quality checks fall into the following types of validation: 'relevant' index change validation (extreme and unusual price levels/changes); missing prices validation; outlets replacement validation; product specification change validation; fresh products price change validation; etc. There is no automatic rejection of observed prices in our validation process. Each case (problematic price) is considered individually and all necessary modifications are done only on the basis of relevant information.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI data is published on the 1st working day after the 11th calendar day of the month following the reference month, i.e. 12-14 days after the reference month.

Level of detailed CPI published

Paper publication: Division-level (12 Divisions), Group-level app. 40 groups, Class-level (100 classes) and Average prices
Online: Division-level (12 Divisions), Group-level app. 40 groups, Class-level (100 classes), Average prices

Separate indices published for specific population groups: No

Type of products for which average prices are calculated and disseminated: Average prices are calculated for all goods and services included in the CPI basket. As prices are not representative they are not disseminated.

Documentation


Publications and websites where methodological information can be found: Data, metadata and methodology of CPI are disseminated on the web site of NSI: http://www.nsi.bg/index.php

I: Other Information

Reported by the country in 2012.

Burkina Faso

A: Identification

Title of the CPI: Indice Harmonisé des Prix à la Consommation (IHPC)

Organisation responsible: Service des Prix à la Consommation

Periodicity: Mensuelle

Price reference period: 2008 = 100

Index reference period: 2008 = 100

Weights reference period: 2008
Main uses of CPI: Indexation of wages, pensions and/or social security payment, main inflation indicator used for monetary policy, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Main city (can include surrounding areas)

Price collection: Main city (can include surrounding areas)

Population coverage: Resident households of nationals and non nationaux africains ne travaillant pas dans un organisme international.

Population groups excluded: Institutional households and non africains, africains salariés d'institutions internationales.

Consumption expenditure includes:

- Food consumed away from home;
- Housing maintenance, minor repairs;
- Major repairs, conversions and extensions to owner occupied housing;
- Luxury goods;
- 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;
- Purchase of gifts of goods and services given to others outside the household;
- Second hand goods purchased;
- Financial services (including fees for financial advice, brokerage fees);
- Interest payments (excluding mortgage interest payments);
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- 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: L'IHPC sert principalement pour mesurer les variations moyennes des prix des biens et services de consommation finale des ménages dans l'économie nationale. Il sert à calculer le taux d'inflation.

Definition of consumption expenditures: Les prix utilisés dans l'IHPC sont les prix d'acquisition au comptant des produits par les ménages dans le cadre d'opérations monétaires.

Classification: NCOA-IHPC dérivée de la COICOP

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys and dire d'expert.

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: No.

D: Sample design

Sampling methods:

Localities: Judgmental sampling

Outlets: Judgmental sampling

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:

Outlets: Si un point de vente ou un produit disparaît au delà de 3 mois il est remplacé

Products: Si un point de vente ou un produit disparaît au delà de 3 mois il est remplacé

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 1, Outlets: 919, Price observations: 6,079
Frequency with which prices are collected: Hebdomadaire pour les produits alimentaires, mensuel pour les produits manufacturés, et à chaque changement de tarifs ou de prix pour les services et prix fixés par l'Etat.

Methods of Price Collection

- Personal data collection for all products.
- Official tariffs for services and administratively fixed prices.

Treatment of:

Discounts and sales prices: Le prix soldé est relevé comme tel

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

Missing or faulty prices: Selon le type de variété du panier: i) variété homogène : Méthode itérative (selon disponibilité des données sur les autres points de vente et les autres périodes) et méthode exogène (dire d'expert) ; ii) variété hétérogène: Méthode itérative (comme énoncé pour les homogène), méthode exogène et reconduction tacite mais au delà de 3 mois ; iii) variétés saisonnières : Méthode exogène et méthode itérative.

Period for allowing imputed missing prices: Durée maximale de 3 mois. Au-delà il faut procéder à un remplacement.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Céréales non transformées, fruits, légumes, poissons frais et produits de la mer.

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: The method used to impute price development in out-of season periods is carrying forward the last observed price.

Treatment of housing

Treatment of owner-occupied housing: Les logements occupés par les propriétaires ne sont pas couverts.

Types of dwellings covered by the rent data: 11 types de logements en 3 strates: bas standing, standing moyen et haut standing. Echantillon de 150 logements suivis auprès des ménages occupants, enquêtés par rotation, une fois tous les 3 mois.
**F: Computation**

*Formula used for calculation of elementary indices:* The ratio of arithmetic mean prices (Dutot index) (Direct form) and the ratio of geometric mean prices (Jevons index) (Direct form)

*Formula to aggregate elementary indices to higher-level indices:* Tous les indices des regroupements sont les indices de Laspeyre des indices de niveau inférieur.

*Seasonally adjusted indices:* No

*Software used for calculating the CPI:* CHAPO et PHOENIX -UEMOA

**G: Editing and validation procedures**

*Control procedures used to ensure the quality of data collected:* Contrôle visuel pour s'assurer de l'exhaustivité.

*Control procedures used to ensure the quality of data processed:* Exhaustivité, cohérence et gestion de données manquantes.

**H: Documentation and dissemination**

*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), Average prices

*Type of products for which average prices are calculated and disseminated:* prix des céréales, de l'énergie, de la viande, légumes

**Documentation**

*Publications and websites where indices can be found:* Note mensuelle sur l'IHPC publiée sur le site [www.insd.bf](http://www.insd.bf)

*Publications and websites where methodological information can be found:* Note mensuelle de janvier 2012. Internet website [www.uemoa.int](http://www.uemoa.int).

**I: Other Information**

Reported by the country in 2012.
Burundi

A: Identification

Title of the CPI: Indice des prix à la consommation

Organisation responsible: Service Etudes et Statistiques du Commerce et des Prix à la Consommation.

Periodicity: Mensuelle

Price reference period: 1991 = 100

Index reference period: January 1992 = 100

Weights reference period: 1991

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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Main cities/metropolitan areas/regions

Price collection: Main cities/metropolitan areas/regions

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

Population groups excluded: Institutional households and high income households.

Consumption expenditure includes:

- Food consumed away from home;
- Housing maintenance, minor repairs;
- Second hand goods purchased;
- Luxury goods

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;
• Financial services (including fees for financial advice, brokerage fees);
• Interest payments (excluding mortgage interest payments);
• Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
• Life insurance premiums;
• Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
• 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:** IPC est l’indicateur temporel à l’intérieur du pays dans lequel le prix du même article est observé sur deux périodes. C’est une mesure synthétique de l’évolution des prix à qualité constante. La plupart des prix sont collectés dans les capitales. Son objectif est de mesurer les effets des variations des prix sur le coût d’achat des produits consommés par les ménages et cherchera ainsi à mesurer les variations des coûts d’achats pour maintenir le niveau de vie des ménages à un niveau spécifié. Aider les différentes institutions à indexer le salaire de leurs employés, indiquer le taux d’inflation auquel le pays doit se référer pour établir la politique monétaire. Entre deux périodes données, il estime la variation moyenne des prix des produits consommés par les ménages.

**Definition of consumption expenditures:** Ce sont des dépenses effectuées par la population de référence (population des ménages courants de la ville de Bujumbura) pour l’achat des biens services destinés à la consommation. Sont notamment exclues de celles-ci les impôts directs, les cotisations salariales, les dépenses d’investissement, l’autoconsommation et les dépenses d’épargne. Les ménages à revenus élevés sont aussi exclus et constituent une faible fraction de la population urbaine.

**Classification:** Nomenclature nationale (pas de lien avec la COICOP pour l’IPC qui est publié)

**Weights include value of consumption from own production:** No

**Sources of weights:** Household expenditure surveys and consumer surveys.

**Frequency of weight updates:** Above 5 years
Price updating of weight reference period to the index reference period: No

Weights for different population groups or regions: Ville principale et certaines de ses zones urbaines (capitale du pays)

**D: Sample design**

Sampling methods:

*Localities:* Simple random

*Outlets:* Judgmental sampling

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

**Frequency of sample updates:**

*Localities:* Échantillons sont actualisés uniquement lorsqu'une nouvelle enquête est menée.

*Outlets:* Continuous (on a rotating basis)

*Products:* Échantillons sont actualisés uniquement lorsqu'une nouvelle enquête est menée.

If sample updates are irregular indicate when last updates were introduced: 1991

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: La détermination de la taille de l’échantillon dépendait des articles disponibles dans une zone (ou marchés) de la ville. Les points de vente : ils sont déterminés par le taux de fréquentation d’un point vente pour un article donné. Les critères qui déterminent le choix d’une variété est l’importance d’une variété dans les dépenses totales d’un poste.

**Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office:** On calcule le prix moyen pour un article représenté par plusieurs variétés étant donné que les pondérations de différentes variétés existent. L’importance d’une variété dans les dépenses totales d’un poste est prépondérante pour sa sélection.

**E: Data Collection**

Approximate number of localities, outlets and price observations: Localities: 4, Outlets: 800, Price observations: 3,000

**Frequency with which prices are collected:** i) Alimentation : quotidiennement, hebdomadaire et la plupart 2 fois par semaine ; ii) Habillement : un mois entier (mensuel) ; iii) Logement chauffage et éclairage : un mois entier, trimestriel et tarifaire ; iv) Article de ménage et entretien ménage : un mois entier (mensuel) ; v) Service médicaux et médicaments un mois entier (mensuel) ; vi) Transport et Télécommunication : un mois entier (mensuel) ;
Reference period for data collection: Soit une semaine, soit un mois entier ou date précise, calcul des moyennes journalières pour les produits des différents points de vente qui manifestent une grande fluctuation et les produits périssables et les moyennes mensuelles. Pour les prix tarifaires ou officiels, on attend une décision du gouvernement pour le prix. Quant au logement par exemple, les pris sont trimestriels.

Methods of Price Collection

- Personal data collection for : produits de l’alimentation, habillement, certains articles du Logement chauffage et éclairage, produits des articles de ménages et entretiens ménagers, certains articles de l’Enseignements cultures et loisirs, Autres biens et services.

- Official tariffs for : certains articles du logement chauffage et éclairage, transports et télécommunications, certains articles de l’enseignement cultures et loisirs.

Treatment of: 

Discounts and sales prices: Pour la réduction, les prix sont pris comme tels. Les soldes ne sont pas pris en considération.

Black market prices: No. Ces prix ne sont pas pris en compte et ce point de vente n’existe pas dans notre IPC.

Second hand purchases: Included.

Missing or faulty prices: Les prix manquants: reports des prix du mois précédents. Les prix erronés: vérifications des erreurs avec les écarts des autres mois. S’il s’agit d’une observation répétée, l’agent de collecte doit confirmer le prix.

Period for allowing imputed missing prices: S’il s’agit d’un produit disparu complètement sur le marché, après avoir réellement vérifié l’inexistence de ce produit, la période est de trois mois. Les produits de remplacement doivent avoir presque les mêmes caractéristiques que les produits disparus. Ils doivent être bien décrits (descriptions claires). Les points de ventes doivent avoir aussi presque les mêmes caractéristiques que ceux précédents.

Disappearance of a given type or quality from the market: Les produits de remplacement doivent avoir presque les mêmes caractéristiques des produits disparus. Ils doivent être bien décrits (descriptions claires). Les points de ventes doivent avoir aussi presque les mêmes caractéristiques que ceux précédents.

Quality differences: On analyse si le changement de qualité n’a pas certaines répercussions sur le prix. Le prix des ces produits doit être comparable c’est-à-dire au prix du produit ancien. Notre base de l’indice a essayé d’exclure des produits élémentaires dont la qualité varie de temps en temps.
Appearance of new items: La différence de qualité est négligeable, on se contente à comparer le prix du nouveau produit remplaçant à la période t+1 avec celui de l’ancien produit à la période t afin de poursuivre la série.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Ces produits sont de type : farineux et féculents, céréalé et légumineuses, viande, charcuteries et poissons, produits laitiers, légumes et fruits, produits d’habillement pour enfant pour femmes, combustibles, appareils électroménagers et produits pharmaceutiques.

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: The method used to impute price development in out-of-season periods is carrying forward the last observed price.

Treatment of housing

Treatment of owner-occupied housing: Les logements occupés par les propriétaires ne sont pas couverts.

Types of dwellings covered by the rent data: Logement à deux pièces, sans douche ni toilette interne et la collecte est trimestrielle. Trois points de vente sont choisis dans 3 quartiers différents de population à revenus moyens.

F: Computation

Formula used for calculation of elementary indices: The ratio of arithmetic mean prices (Dutot index) (Direct form and Chained form)

Formula to aggregate elementary indices to higher-level indices: La formule de Laspeyres: moyennes des indices élémentaires, ou partiels pondérés par les coefficients de pondérations de la période de base.

Formula of aggregating regional/population group indices into national index: Il n’y pas d’agrégation pour notre indice car il est calculé en ville principale seulement. Les régions ou sous groupes de population ne sont pas concernés.

Monthly and annual average prices: No average prices are calculated.

Seasonally adjusted indices: No

Software used for calculating the CPI: Microsoft Excel
**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected**: Contrôler directement les prix sur le point de vente concerné sur le marché

**Control procedures used to ensure the quality of data processed**: Formules liées et automatiquement du début de la saisie de données brutes à la fin, les variations douteuses sont mises en surbrillance.

**H: Documentation and dissemination**

**Level of detailed CPI published**

**Paper publication**: All items CPI, Basic Items and Average prices

**Separate indices published for specific population groups**: No

**Type of products for which average prices are calculated and disseminated**: Les produits dont les prix varient pendant la semaine, les produits périssables, tarifaires si le tarif change en cours du mois.

**Documentation**

**Publications and websites where indices can be found**: Dans le bulletin mensuel de la bibliothèque de l’Institut des Statistiques.

**Publications and websites where methodological information can be found**: L’IPC du mois Mai 2012. Les informations méthodologiques sur l’IPC sont dans la bibliothèque de l’Institut des Statistiques.

**I: Other Information**

Reported by the country in 2012.

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**Cambodia**

**A: Identification**

**Title of the CPI**: Phnom Penh Consumer Price Index

**Organisation responsible**: National Institute of Statistics

**Periodicity**: Monthly

**Index reference period**: October – December 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 and computation of purchasing power of households.

B: CPI Coverage

Geographical Coverage

Weights: Main city (can include surrounding areas)

Price collection: Main city (can include surrounding areas)

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Classification: COICOP (Classification of individual consumption by purpose) with 10 major groups and 36 sub-groups.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

Price updating of weight reference period to the index reference period: The weights are price adjusted.

D: Sample design

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Strict specifications of the varieties are used in the collection of prices.

E: Data Collection

Methods of Price Collection

- Personal data collection

Treatment of:

Missing or faulty prices: A missing item is carried with its last price quotation until that item reappears on the market, but no longer than three months after its disappearance.

Disappearance of a given type or quality from the market: If a certain item disappears from the market (for more than 3 months), it is replaced by an alternative commodity of the same usage, based on the four main criteria-namely, representativeness, significance, consistency and availability.
Treatment of seasonal items and seasonality

**Items that have a seasonal character and their treatment:** Seasonal prices are carried without adjustments until the product appears again on the market.

Treatment of housing

**F: Computation**

**G: Editing and validation procedures**

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** The Phnom Penh CPI is compiled on a timely and regular basis, within 10 working days after the reference month.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**


**I: Other Information**

Completed by ILO in 2013.

Cameroon

**A: Identification**

**Title of the CPI:** National Consumer Price Index

**Organisation responsible:** Institut National de la Statistique (INS)
Periodicity: The three indices (Yaoundé, Douala and the national index) of final household consumption prices are produced on a monthly basis. The national index is published quarterly.

Index reference period: 2011 = 100


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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index (CPI) is the instrument used to measure variations in the general level of prices in Cameroon between two given periods. These prices correspond to goods and services available to consumers throughout the country.

Classification: COICOP (Classification of individual consumption by purpose) with 12 consumption divisions.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Every 3-5 years

Weights for different population groups or regions: Regional weights are computed and regional indices are weighted by the total consumption expenditure of each region.

D: Sample design

Sampling methods:

Outlets: Judgmental sampling

Products: Judgmental sampling

Frequency of sample updates:
Outlets: Regularly

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Item selection: The number of observed variety depends on different areas of observations. The choice of varieties in a basket region depends on the volume of consumption by the people in that region. The total consumption of varieties of the basket is greater than 90% of the consumption total in each city. Varieties with a high weighting significantly influence the variation of the index including food.

Samples of goods and service: The sample of goods and services is representative of the consumption of households belonging to the reference population. The sampling of goods and services is carried out in each defined stratum of household consumption. The selection criteria is based on: i) consumption of a subgroup show a particular price movement; ii) The prices of product varieties should be reasonably similar in their movements; iii) Product varieties should not be too difficult to observe in the field; in particular, their characteristics should be easily observable.

Outlets selection: The sales outlets are not selected at random, but on the basis of rational parameters: geographical location and the estimated frequency of consumer visits. In addition price observation points must follow three criteria; i) It must sell goods or services contained in the basket; ii) It must be easily accessible; and iii) It must be considered to have temporal permanence.

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 3,656, Price observations: 24,207

Frequency with which prices are collected: Prices are collected monthly.

Reference period for data collection: The prices of all products and services are collected in the first and second halves of the month.

Methods of Price Collection

- Personal data collection for most of the items.
- Price lists of distribution companies for electricity and water.

Treatment of:

Discounts and sales prices: The prices of promotional items may be recorded if the length of such offers is more than one month. If these special prices are recorded, they must be indicated as such.

Missing or faulty prices: If the disappearance from the sales outlet under observation is temporary, no price is recorded during the visit in question (and therefore no price is recorded on the data sheet).
Period for allowing imputed missing prices: If a product is observed to be lacking for two consecutive months, a suitable replacement for the product must be found as of the third month.

**Disappearance of a given type or quality from the market:** After three months of observation, if a product is still not found at its usual observation point, it is considered to have permanently disappeared from that sales outlet. Such products may be replaced by: (a) An equivalent product at the same sales outlet; (b) Failing this, the same product or an equivalent product at another sales outlet of the same type; (c) Failing this, the same product or an equivalent product at another sales outlet of a different type; (d) Failing this, a different product at the same sales outlet; (e) Failing this, a different product at another sales outlet; (f) Or, failing this, an equivalent product at a sales outlet of a different type; (g) Or, failing this, another product deemed to be sufficiently similar at the same sales outlet; (h) Or, failing this, another product deemed to be sufficiently similar at a sales outlet of a different type. Only the head of department is authorized to make such replacements. All replacement products should be expressly indicated so that they may be properly taken into account in calculating the index.

**Treatment of seasonal items and seasonality**

**Treatment of housing**

**F: Computation**

**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index) (Direct form)

**Formula to aggregate elementary indices to higher-level indices:** Aggregation of elementary indices is by Laspeyres formula.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** Two types of checks are done: i) Completeness checks, these aim at ensuring that all data sheets have been filled in (prices and weights) properly, that is, that the prices of all product varieties have been recorded. Omissions are corrected immediately given that some are due to a temporary shortage of a product at a particular observation point, to a permanent shortage or to unavailability at the time of the collection. The head of the department determines the appropriate corrective measure to be taken in each case. ii) Coherence checks, these aim at identifying incorrect data resulting from collection errors or inaccurate completion of data sheets (during weighing, for example) and at taking the appropriate corrective measures. Even though certain errors sometimes come to light after processing, manual or visual checks are always performed beforehand. Checks are always made to find whether prices have changed significantly from one month to the next and, if so, a note explaining the reasons for the price change should be submitted.

**H: Documentation and dissemination**
**Timeliness of dissemination of the CPI data:** Six days after the reference month for the Yaoundé index, by means of an INS announcement to the public. Ten days after the end of the reference month for the Douala index, by means of an INS announcement to the public. 1 month after the end of the reference quarter for the National Price Index.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**

**Publications and websites where indices can be found:** The National Price Index is published “Évolution des Prix à la Consommation finale des Ménages au …ème Trimestre…(année)” (Trends in household final consumption prices in the nth quarter of …(year)) Internet website: [http://www.statistics-cameroon.org](http://www.statistics-cameroon.org).

**Publications and websites where methodological information can be found:** Link to methodology: [http://www.unece.org/stats/documents/ece/ces/ge.22/2008/mtg1/zip.57.e.pdf](http://www.unece.org/stats/documents/ece/ces/ge.22/2008/mtg1/zip.57.e.pdf).

**I: Other Information**

Completed by ILO in 2013.

**Canada**

**A: Identification**

**Title of the CPI:** Consumer Price Index

**Organisation responsible:** Statistics Canada

**Periodicity:** Monthly

**Index reference period:** 2002 = 100

**Weights reference period:** 2009 Annual Expenditure Patterns.

**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, 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.

**Population groups excluded**: Institutional households, persons living on Indian reserves, officials representing foreign countries and their families, and residents of Yukon, Northwest Territories and Nunavut outside Whitehorse, Yellowknife and Iqaluit.

**Consumption expenditure includes**: 
- Mortgage interest;
- Housing maintenance, minor repairs;
- Major repairs, conversions and extensions to owner occupied housing;
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims

**Consumption expenditure excludes**: 
- Income in-kind receipts of services;
- In-kind goods received as gifts;
- Purchase of owner-occupied housing;
- Life insurance premiums;
- Investment-related expenditures (e.g. purchase of shares/stocks)

**C: Concepts, definitions, classifications and weights**

**Definition of the CPI and its objectives**: Consumer Price Index is an indicator of the changes in consumer prices experienced by Canadians through time and obtained by comparing the cost of a fixed basket of commodities purchased in a particular year. Since the basket contains commodities of unchanging or equivalent quantity and quality, the index reflects only pure price movements.

**Classification**: COICOP (Classification of individual consumption by purpose)

**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 from the weight reference period are adjusted to the index reference period by price change updates using link month prices.

**D: Sample design**

**Sampling methods**: 
**Outlets:** Judgmental sampling

**Products:** Judgmental sampling

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:** Outlet selection: For rents and traveller accommodation, stratified random sampling. For other items, judgemental, taking into account types of stores, sales volumes, and locations within cities.

Item selection: Judgmental. The selected items should represent the price movement of the basic class and should be available for a reasonable length of time. The list of specifications is reviewed on an ongoing basis and can be changed at any time. For rents and traveller accommodation, stratified random sampling. For other items, judgmental, taking into account types of stores, sales volumes, and locations within cities.

Sample size: Approximately 8,000 rent quotes and 35,000 other quotes are collected each month at approximately 7,000 outlets.

**Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office:** Specifications provide detailed descriptions of the characteristics of the product surveyed. A fairly narrow quality range may be specified. In some cases specific models are identified.

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Localities: 76, Outlets: 7,000, Price observations: 8,000 rent quotes, 35,000 other quotes.

**Frequency with which prices are collected:** The frequency of data collection depends on the nature of the item, many specifications: monthly.

**Reference period for data collection:** Price collection is spread over the first three weeks of the month.

**Methods of Price Collection**

- Personal data collection for most of the items.

- Telephone interviews for few items

- Labor force survey for rent.

**Treatment of:**

**Discounts and sales prices:** Unconditional discounts and sales taxes are reflected in price collection.

**Missing or faulty prices:** For missing prices, either the previous price is carried forward or the price is not used in the calculation of the current month's price change.
Disappearance of a given type or quality from the market: If an item disappears from the market, the interviewer is asked to find another item meeting the specification. The new item must meet the specification, and should be similar to the item previously priced.

Quality differences: Commodity specialists estimate quality differences based on product and market knowledge, taking into account information received from retailers and manufacturers. Hedonic techniques are used for computer equipment and are being investigated for clothing and other products.

Appearance of new items: Whenever a new product has gained a sufficient market share, a specification for the product is added to the pricing sample.

Treatment of seasonal items and seasonality

Treatment of housing

Treatment of owner-occupied housing: The user cost approach is used for owner-occupied housing. Components are mortgage interest cost, replacement cost, property taxes, homeowners' insurance, homeowners' maintenance and repairs, and other owned accommodation expenses.

Types of dwellings covered by the rent data: Rent information is collected in the labor force survey (LFS) in most locations.

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: Laspeyres methodology, in which fixed weights are used, is used to aggregate basic class indices to higher-levels.

Formula of aggregating regional/population group indices into national index: The national CPI is calculated by combining the urban and rural indices using as weights the country-wide urban and rural household expenditure multiplied by the total number of urban/rural households as available from population census data.

Monthly and annual average prices: Annual average indexes are obtained by averaging the indexes for the 12 months of the calendar year.

Seasonally adjusted indices: Seasonally adjusted indices are published for all-items, 8 major components and 4 special aggregates only. The procedure used is X-12 ARIMA program.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Prices are verified at head office for reasonableness. Interviewers verify all price changes and are required to provide explanations for unusual movements.
Control procedures used to ensure the quality of data processed: Calculations are reviewed by commodity specialists and economists for reasonableness and consistency with external information. Consumer prices division has an internal price index quality assurance team and an external price measurement advisory committee which review all aspects of the CPI.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI data is disseminated 16 – 22 working days after the end of the reference month and no later than one month 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

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

Documentation

Publications and websites where indices can be found: Internet website:
http://www.statcan.gc.ca/dai-quo/index-eng.htm for the data released in "The Daily". All data series on consumer prices are available, for free, in English and French on CANSIM (Statistics Canada database) at the following Internet address:

Publications and websites where methodological information can be found: "Your Guide to the CPI" is available on the Statistics Canada Internet website

I: Other Information

Completed by ILO in 2013.

Cape Verde

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: National Institute of Statistics

Periodicity: Monthly
Index reference period: 2007 = 100


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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index (CPI) is an indicator that aims to measure changes over time in the prices of a set of goods and services considered representative of the consumption structure of the resident population in Cape Verde.

Classification: COICOP (Classification of individual consumption by purpose)

Sources of weights: Household expenditure surveys and administrative sources.

Frequency of weight updates: Above 5 years

Price updating of weight reference period to the index reference period: Weights are price updated for example the weighting structure adopted, reflects the average amounts consumed during the survey (2001/2002) valued at average prices of the base year (reference prices index).

D: Sample design

Sampling methods:

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

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Outlet selection: Outlets are selected based on the Economic Activities (NACE) for the Retail Trade and Services. Its use enables: the link to statistics companies (improving the representativeness of the sample of outlets for different types of trade and services), the clear association of goods and services (CCIO) in the basket to points of sale, and the adoption of procedures more stringent when replacement is necessary for points of sale.
Item selection: The list of representative products for the price collection in the calculation of the CPI was based on the estimated expenditure from household expenditure survey. The criteria used for item inclusion was items with a total value of annual consumption greater than or equal to 0.001% of total expenditure and items with a value below this threshold to ensure the compilation indices for a given sub-subgroup.

E: Data Collection

**Frequency with which prices are collected:** Periodicity of price collection depends on the type of goods and services. In particular, unprocessed food i.e. vegetables, fruits and fish are subject to monthly collection. Infrastructure and products in the short term are observed quarterly. A small number of goods and services, which traditionally suffer a single price update in the calendar year, is observed on an annual basis. For other varieties monthly monitoring of the prices is adopted.

**Methods of Price Collection**

- Personal data collection

**Treatment of:**

**Discounts and sales prices:** Bargain prices, promotions and other price reductions without restriction to generality of consumers are considered in the CPI calculation.

**Treatment of seasonal items and seasonality**

**Treatment of housing**

F: Computation

**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index) (Direct form) and the ratio of geometric mean prices (Jevons index) (Direct form)

**Formula to aggregate elementary indices to higher-level indices:** Elementary indices are aggregated into higher-level indices using the Laspeyres formula.

**Formula of aggregating regional/population group indices into national index:** The calculation of the monthly national index is done in the following steps: i) calculation of average prices in regions; ii) calculation of rates of elementary-level regional varieties; iii) aggregation for the sub-indices and index total regional; and iv) aggregation for the sub-indices and index the national total. The methodology for calculating the national CPI is the aggregation of regional indices.

**Monthly and annual average prices:** Average prices for regional elementary item is obtained from the arithmetic average of the average prices weighted by coefficients population.

G: Editing and validation procedures
H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI data is disseminated on the 10th day after the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation

Publications and websites where indices can be found: Flash Report (Folha de Informação Rápida—FIR), (in Portuguese); Annual Prices Bulletin (Boletim Anual de Preços) (in Portuguese); Internet website: www.ine.cv (in Portuguese)


I: Other Information

Completed by ILO in 2013.

Cayman Islands

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Economics and Statistics Office (ESO)

Periodicity: Quarterly

Index reference period: June 2008 = 100


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, 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.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index (CPI) measures the change in the average price level of consumer goods and services purchased by private households.

Classification: COICOP (Classification of individual consumption by purpose) with 12 divisions

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

D: Sample design

E: Data Collection

Frequency with which prices are collected: Prices of most of the items are collected once a quarter. Prices for vegetables and fruits, fish, meat and gas are collected monthly.

Reference period for data collection: The reference period for most items is every second month of the quarter.

Methods of Price Collection

- Personal data collection for grocery items, clothing and footwear, furniture, appliance shops and others services.

- Telephone interviews

Treatment of seasonal items and seasonality

Treatment of housing

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: The CPI is computed using Lowe’s formula. The Lowe indices is one of the widest and popular class of price indices which is obtained by defining the index as the percentage change, between the periods compared, in the total cost of purchasing a given set of quantities, generally described as a “basket”. The Lowe index, \( P_{Lt} \), is defined as follows:

\[
P_{Lt} = \frac{\sum_{i=1}^{n} p_i q_i}{\sum_{i=1}^{n} p_i^0 q_i}
\]

where

\( n \) = number of products in the basket with prices \( p_j \) and quantities \( q_j \)
\( 0 \) = base period when index = 100
\( t \) = later period being compared
\( p = [p_1, p_2, ..., p_n] \) for each item from different outlets is the average or prices of the outlets.
\( p = (\prod_{i=1}^{n} p_i)^{1/n} = \sqrt[n]{p_1 * p_2 * ... * p_n} \)
\( q \) = implicit quantity purchased by households in the HBS period.

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI reports are disseminated on ESO web site [www.eso.ky](http://www.eso.ky) 2 – 3 months after the end of each quarter.

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

Documentation

Publications and websites where indices can be found: Quarterly CPI Esso website [www.eso.ky](http://www.eso.ky)

Publications and websites where methodological information can be found: Brief methodology can be found at Esso website [www.eso.ky](http://www.eso.ky)

I: Other Information

Completed by ILO in 2013.

Chad
A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: National Institute of Statistics, Economic and Demographic Studies (INSEED)

Periodicity: Monthly

Index reference period: 2005 =100

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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Price collection: Main city (can include surrounding areas)

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Classification: The classification of consumption is specific to Chad.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

D: Sample design

E: Data Collection

Frequency with which prices are collected: Prices are observed twice a month.

Reference period for data collection: Price observations are conducted in the first and second half of the month.

Methods of Price Collection

- Personal data collection

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation
Formula used for calculation of elementary indices: The ratio of arithmetic mean prices (Dutot index) (Direct form)

Formula to aggregate elementary indices to higher-level indices: The composite indices are of the Laspeyres type.

Seasonally adjusted indices: Indices are not seasonally adjusted.

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI data is disseminated 10 days after the reference period.

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

Documentation

Publications and websites where indices can be found: Monthly: “Observations sur les prix à la consommation pour la ville de N’Djaména”, INSEED (in French), available upon request; Quarterly: Études et Statistiques" [Studies and Statistics] (in French); Other: "Annuaire statistique du Tchad" [Statistical Yearbook of Chad], INSEED, (in French), available to the public upon request.

Publications and websites where methodological information can be found: A price index compendium entitled “Indice des prix à la consommation (1988-1994)” was published in May 1995. The methodology for compiling the consumer price index is described in that publication. This compendium may be consulted upon request, or obtained upon request from the Director General of INSEED.

I: Other Information

Completed by ILO in 2013.

Chile

A: Identification

Title of the CPI: IPC base 2009 = 100

Organisation responsible: Instituto Nacional de Estadísticas
Periodicity: Monthly

Price reference period: 2009

Index reference period: 2009

Weights reference period: November 2006 – October 2007

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

B: CPI Coverage

Geographical Coverage

Weights: Main cities/metropolitan areas/regions

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;
- Purchase of gifts of goods and services given to others outside the household;
- Second hand goods purchased;
- 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;
- Expenditures abroad

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;
• Luxury goods;
• 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

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index, measures price variations of a basket of goods and services typically consumed in households located in all of the country’s regional capitals and their urban zones. The definition has been set according to the concept of household expenditure within the territory of Chile, which is consistent with the objective of calculating the price variations that consumers may encounter.

Definition of consumption expenditures: Acquisition approach is used.

Classification: The COICOP classification is used at the level of “Sub Clase”. An adaptation of COICOP is used at product level.

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys and consumer 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: No.

D: Sample design

Sampling methods:

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

Outlets: Stratified sampling with PPS sampling in each stratum

Products: Stratified sampling with simple random sampling in each stratum

Frequency of sample updates:

Localities: The sample of localities remains the same.

Outlets: Continuous (on a rotating basis)
Products: Annual

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: The criteria used is the volatility of prices and the market share of varieties of products.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: The criterion used is the most bought variety in the outlet.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 15, Outlets: 7,072, Price observations: 106,511

Frequency with which prices are collected: Food items, fuels, bus tickets - weekly
Education fees – annually. The rest of the products are collected annually.

Reference period for data collection: The reference period for data collection is a specific date, except for rents where the reference period is the previous month.

Methods of Price Collection

- Personal data collection

- Mailed questionnaires for financial fees and insurance.

- Telephone interviews for domestic services.

- Internet for electronics.

- Official tariffs

Treatment of:

Discounts and sales prices: For discount prices there is a list of cases that describes treatment of each case. Sale prices are not taken.

Missing or faulty prices: Prices are imputed as follows: a) The missing price of an item from an outlet is imputed by entering the price variation taken from a similar outlet; b) If an item is not sufficiently represented, the price variation of similar items is used; c) If none of the above options is possible, this missing price is imputed by entering the price variation of similar products.

Period for allowing imputed missing prices: 3 months

Disappearance of a given type or quality from the market: In this case the item/variety is changed and it is not chained to the previous one.
Quality differences: The option method is used in cars and a combination of hedonic prices and expert judgements in some electronics products.

Appearance of new items: No new items are introduced.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Fresh fruits and vegetables, clothing.

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: Apartments and houses. The price is collected monthly with a questionnaire made to the household.

F: Computation

Formula to aggregate elementary indices to higher-level indices: Laspeyres formula.

Formula of aggregating regional/population group indices into national index: Laspeyres formula.

Monthly and annual average prices: No average prices are calculated.

Seasonally adjusted indices: No seasonal adjustment.

Software used for calculating the CPI: NET

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: The first control is when the surveys are back in office. In that moment, the supervisors check a random 25% of the surveys.
Control procedures used to ensure the quality of data processed: The second control is once that the surveys have been digitalised, in this control the system reports the variation out of confidence interval which are revised for the division coordinators.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: 7 days after the end of the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Separate indices published for specific population groups: No

Type of products for which average prices are calculated and disseminated: None

Documentation

Publications and websites where indices can be found: Índice de Precios al Consumidor http://www.ine.cl/boletines/detalle.php?id=1&lang=


I: Other Information

Reported by the country in 2012.

Colombia

A: Identification

Title of the CPI: Indice de Precios al Consumidor

Organisation responsible: DANE – Departamento Administrativo Nacional de Estadística

Periodicity: Mensual

Price reference period: December 2008 = 100

Index reference period: December 2008 = 100
Weights reference period: 01/12/2008

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: Main cities/metropolitan areas/regions

Price collection: Main cities/metropolitan areas/regions

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

Population groups excluded: Institutional households and one-person households.

Consumption expenditure includes:

- Food consumed away from home;
- Housing maintenance, minor repairs;
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- 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;
- Purchase of gifts of goods and services given to others outside the household;
- Second hand goods purchased;
- Luxury goods;
- Financial services (including fees for financial advice, brokerage fees);
- Interest payments (excluding mortgage interest payments);
- Life insurance premiums;
- Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
- 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: El IPC es un índice que presenta a partir de un mes base, la variación promedio mensual de precios de una canasta de bienes y servicios representativa del consumo de los hogares, y que tiene por fin servir de herramienta de análisis y toma de decisiones

Definition of consumption expenditures: El consumo se define a partir del enfoque de adquisición. El gasto de consumo se define como el gasto monetario en bienes y servicios de consumo, adquirido por los hogares

Classification: La clasificación utilizada mantiene los lineamientos de la COICOP, y refiere al ordenamiento del consumo de los hogares utilizado por el Sistema de Cuentas Nacionales

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys, en su nivel flexible, el índice utiliza ponderaciones determinadas por medio de la Encuesta de Ingresos y Gastos y de información gremial o de encuestas economicas.

Frequency of weight updates: Above 5 years

Price updating of weight reference period to the index reference period: De darse el caso, el indicador actualizo la información para el cálculo de las ponderaciones indexando los gastos por medio de la variación determinada por el IPC, usando los índices en los mínimos niveles de publicación.

Weights for different population groups or regions: El indicador cuenta con ponderaciones según tres grupos de ingresos (altos, medios y bajos) y según ciudades (24 capitales de departamento).

D: Sample design

Sampling methods:

Outlets: Stratified sampling with PPS sampling in each stratum, judgmental sampling.

Frequency of sample updates:

Outlets: Las fuentes de información se mantienen en el tiempo, de otro lado, la inclusión de nuevas se presenta cuando se requiere incrementar el número de cotizaciones o por cambios detectados en el mercado
If sample updates are irregular indicate when last updates were introduced: El indicador mantiene sus fuentes (la eliminación de fuentes se presenta por el cierre definitivo de las mismas); el proceso de inclusión de nuevas fuentes se realiza cuando se hace necesario incrementar el número de cotizaciones para ciertos artículos o por situaciones propias del mercado (apertura de nuevos centros de distribución y venta al consumidor, que concentran buena proporción del consumo de los hogares, y/o la especialización en la venta de ciertos bienes y servicios).

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: El criterio para determinar el tamaño de muestra es la variabilidad observada en los precios, conservando un error muestral de hasta el 5%. La cobertura posible en cada punto de venta, por artículo, esta limitada a una cotización por cada artículo, en cada punto de venta; la selección de la cotización a recolectar se determina indagando por aquella cotización (artículo asociado a unas especificaciones particulares) con mayor demanda en el mercado.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: El trabajo de campo debe indagar por aquella variedad (artículo asociado con unas especificaciones particulares), que: (a) presente las mayores ventas y (b) tenga mayores probabilidades de mantenerse en el mercado.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 24, Outlets: 29,589, Price observations: 239,000

Frequency with which prices are collected: Mensual: Alimentos, servicios publicos, transporte urbano e intermunicipal, gasolina, periódicos, lotería, pasaje aéreo, futbol
Bimensual: Artículos del hogar; articulos de aseo personal, medicamentos, articulos personales y licores
Trimestral: Vestuarios, electrodomésticos, muebles, servicios de salud
Cuatrimestral: Arriendos, Semestral: Educación superior, Anual: Colegios

Reference period for data collection: Alimentos no procesados: se realiza recolección diaria de la información, dividiendo el tamaño de muestra total mensual necesaria para el indicador, en 22 días hábiles. Para el resto de los bienes y servicios de la canasta, con periodicidad diferente a mensual se divide el tamaño de muestra de forma tal que las cotizaciones a recolectar se distribuyan uniformemente en cada mes. Las cargas mensuales están establecidas para que exista la mayor uniformidad posible en el trabajo de campo, de manera que todos los días hábiles exista recolección de precios

Methods of Price Collection

- Personal data collection for: toda la canasta exceptuando los relacionados con telecomunicaciones y pasaje aéreo

- Internet for: artículos relacionados con telecomunicaciones y pasaje aéreo.

Treatment of:
Discounts and sales prices: Los descuentos se incluyen en el levantamiento de precios únicamente si éstos son accesibles a todos los consumidores sin restricciones comerciales de ningún tipo y afectan el período de referencia.

Black market prices: Not collected.

Second hand purchases: Not included.

Missing or faulty prices: La variación faltante se reemplaza con el resultado del cálculo de la variación promedio (media geométrica) determinada para las otras cotizaciones del mismo artículo que sí surtieron información.

Period for allowing imputed missing prices: Tiempo máximo e imputación: un periodo de recolección. El artículo de reemplazo debe localizarse por medio de la selección de otro que tenga similares condiciones de calidad y precio.

Disappearance of a given type or quality from the market: El índice tiene un nivel flexible, que permite la actualización constante de los artículos de la canasta. A medida que el mercado envía señales sobre la desaparición de cierto artículo, el recolector debe indagar por los nuevos productos que ofrece el mercado para cubrir la necesidad que satisfacía el anterior. Con base en esta información se incluyen nuevas cotizaciones para nuevos artículos (los sustitutos de quienes están desapareciendo), de forma tal que cuando el artículo antiguo desaparezca, exista ya información sobre su reemplazo en el mercado.

Quality differences: Se utiliza el método de ajuste por calidad implícito descrito en el Manual del Índice de Precios. Para los artículos relacionados con computadores se utiliza un modelo hedónico de ajuste.

Appearance of new items: El índice tiene un nivel flexible, que permite la actualización constante de los artículos de la canasta. A medida que el mercado envía señales sobre la desaparición de cierto artículo, el recolector debe indagar por los nuevos productos que ofrece el mercado para cubrir la necesidad que satisfacía el anterior. Con base en esta información se incluyen nuevas cotizaciones para nuevos artículos (los sustitutos de quienes están desapareciendo), de forma tal que cuando el artículo antiguo desaparezca, exista ya información sobre su reemplazo en el mercado.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: El país no tiene agrupaciones de bienes estacionales.

Treatment of housing

Treatment of owner-occupied housing: Se utiliza el enfoque de alquiler equivalente comentado en el Manual del Índice de Precios al Consumidor.

Types of dwellings covered by the rent data: Tipo de vivienda recolectada: Casa independiente, apartamentos y curators. La recolección se realiza con una periodicidad cuatrimestral (sin embargo en cada mes se recolecta 1/4 del total de cotizaciones requeridas). La indagación del precio hace referencia al valor del arriendo, descontando pagos.
relacionados con servicios públicos y cuotas de administración (Unidades habitaciones ubicadas en propiedad horizontal). La selección de la muestra es de carácter probabilístico, usando como universo la información de la Encuesta a Hogares

**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:**

\[
I_{tc} = \frac{\sum P_{tc} \times \beta_{tc}}{\sum \beta_{tc}}, \quad \text{where}
\]

\[I_t = \text{Índice agregado (para el periodo } t, \text{ agrupando el subgrupo de elementos nombrado como "c")}
\]

\[P_{tc} = \text{Índice elemental encadenado (calculado para el periodo } t, \text{ agregando todos aquellos pertenecientes al subgrupo "c")}
\]

\[\beta_{tc} = \text{Ponderaciones determinadas en el periodo cero, y que hacen referencia a los pesos relativos calculados para los elementos del subgrupo nombrado como "c".}
\]

El índice en niveles agregados se calcula como la razón entre la sumatoria de los productos resultantes del cómputo: índice elemental encadenado, multiplicado por la ponderación del nivel ubicado; sobre la ponderación total calculada para todo el nivel agregado

**Formula of aggregating regional/population group indices into national index:**

\[
I_t = \sum P_{tc} \times \beta_{0c} \quad \text{where}
\]

\[I_t = \text{Índice total nacional (para el periodo } t)
\]

\[P_{tc} = \text{Índice total por ciudad (calculado para el periodo } t)
\]

\[\beta_{0c} = \text{Ponderaciones determinadas en el periodo cero, y que hacen referencia a los pesos relativos calculados para cada ciudad}
\]

El índice total nacional se puede calcular como la media ponderada de los índices obtenidos por ciudad.

**Monthly and annual average prices:** Actualmente se calculan precios promedio mensuales para ciertos artículos relacionados con alimentos, así: i) Precio promedio para un producto, de acuerdo al nivel de ingreso (bajo, medio y alto) y ciudad (24 ciudades), por medio del calculo de la media geométrica ; ii) Logrado el primer nivel de agregación, se obtiene por medio de un promedio ponderado, el precio promedio del artículo para todos los tipos de ingreso, por ciudad (24 ciudades) ; iii) Finalmente, se agrega el precio promedio total nacional por medio de un promedio ponderado en función del peso que tenga cada ciudad dentro del índice.

**Software used for calculating the CPI:** ORACLE y FOX

**G: Editing and validation procedures**

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Control procedures used to ensure the quality of data collected: En el nivel local (microdato): Análisis de toda la información y supervisión de los registros detectados por el analista En el nivel central (microdato): Análisis de la información que cumple con los criterios de verificación. También se cuenta con solicitudes de supervisión requeridas desde el nivel central.

Control procedures used to ensure the quality of data processed: Análisis económico, conceptual y de entorno de los resultados

H: Documentation and dissemination

Level of detailed CPI published

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

Separate indices published for specific population groups: El indicador genera un índice particular para una zona del país (Úraba).

Type of products for which average prices are calculated and disseminated: El indicador produce y publica precios promedio para ciertos artículos del grupo alimentos

Documentation

Publications and websites where indices can be found:
http://www.dane.gov.co/index.php?option=com_content&view=article&id=103&Itemid=76
Publicaciones: "Metodología IPC"; "Ficha metodológica"; boletín de prensa, comunicado, presentación general de resultados, anexos e históricos

Publications and websites where methodological information can be found:
http://www.dane.gov.co/index.php?option=com_content&view=article&id=103&Itemid=76Publicaciones: "Metodología IPC"; y "Ficha metodológica", actualizada a la fecha; boletín de prensa, comunicado, presentación general de resultados, anexos e históricos con datos a mayo de 2012 (publicados en junio 5)

I: Other Information

Reported by the country in 2012.

Comoros

A: Identification

Title of the CPI: Moroni Consumer Price Index.

Periodicity: Monthly

Index reference period: 1999 = 100


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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Main city (can include surrounding areas)

Price collection: Main city (can include surrounding areas)

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Classification: COICOP (Classification of individual consumption by purpose) with 12 divisions

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

D: Sample design

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 41

Frequency with which prices are collected: Price surveys are conducted twice per week in the capital’s two markets, and one survey per month at other points of sale.

Methods of Price Collection

- Personal data collection

Treatment of:

Missing or faulty prices: The prices of products that are temporarily unavailable are replaced with the average prices from the previous month.

Treatment of seasonal items and seasonality
Treatment of housing

**F: Computation**

**Formula to aggregate elementary indices to higher-level indices:** The CPI is a Laspeyres-type index.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** Data quality control is not performed automatically by the Excel table that is used. This quality control is performed by the head of the unit through an examination of the data collection tools. The elements that are considered are the exhaustiveness of the reporting, the exhaustiveness of the treatment, and consistency.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** The index is generally available in the Statistical Bulletin of the Consumer Price Index on the 15th of the month following the month of collection.

**Level of detailed CPI published**

**Paper publication:** All items CPI

**Online:** All items CPI

**Documentation**

**Publications and websites where indices can be found:** The CPI is provided to the press at the time of its release. The overall annual inflation rate in the Comoros over the four preceding years is provided in a table showing changes in the selected real sector indicators. This table appears in the Annual Report of the Central Bank of the Comoros (BCC). No information about the CPI is available online, since the DGSP does not currently have a website.

**I: Other Information**

Completed by ILO in 2013.

### Cook Islands

**A: Identification**

**Title of the CPI:** Consumer Price Index
Organisation responsible: Ministry of Finance and Economic Government - Statistics Division

Periodicity: Quarterly

Index reference period: 01/12/2006


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, 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.

Consumption expenditure excludes:

- Foods produced for own final consumption;
- Other goods produced for own final consumption;
- Services produced for own final consumption;
- Mortgage interest;
- 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 Consumer Price Index (CPI) is an indicator or measure of price changes. It is a fixed weighted average of price relatives and is computed using the Laspeyres price index formula.

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

D: Sample design

E: Data Collection
Reference period for data collection: The reference period is the week in which the midpoint of each quarter falls.

Methods of Price Collection

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: The CPI is computed using the Laspeyres price index formula.

G: Editing and validation procedures

H: Documentation and dissemination

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

Documentation

Publications and websites where indices can be found: Ministry of finance and Economic Management website, http://www.mfem.gov.ck

Publications and websites where methodological information can be found: Ministry of finance and Economic Management website, http://www.mfem.gov.ck

I: Other Information

Completed by ILO in 2013.

Costa Rica

A: Identification

Title of the CPI: Indice de Precios al Consumidor Base Julio 2006

Organisation responsible: Instituto Nacional de Estadística y Censos (INEC)
Periodicity: Monthly

Price reference period: Julio 2006 = 100

Index reference period: Julio 2006 = 100

Weights reference period: Abril 2004 – Abril 2005

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 and deflate household expenditures in national accounts.

B: CPI Coverage

Geographical Coverage

Weights: Zonas urbanas de las cuatro provincias del país

Price collection: Zonas urbanas de las cuatro provincias del país

Population coverage: Resident households of nationals.

Population groups excluded: Institutional households.

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;
• Purchase of gifts of goods and services given to others outside the household;
• Second hand goods purchased (second hand motor cars only);
• Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
• Occupational expenditures;
• Expenditures abroad

Consumption expenditure excludes:

• Purchase of owner-occupied housing;
• Mortgage repayments;
• Mortgage interest;
• Major repairs, conversions and extensions to owner occupied housing;
• Luxury goods;
• Financial services (including fees for financial advice, brokerage fees);
• Interest payments (excluding mortgage interest payments);
• Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
• Life insurance premiums;
• Gambling expenditure, gross of winnings;
• 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: Mide la variación porcentual mensual de una canasta de bienes y servicios que representa la estructura de consumo de los hogares de las zonas urbanas del país.

Definition of consumption expenditures: Consumo adquirido

Classification: CCIF a nivel de división, grupo y clase

Weights include value of consumption from own production: Yes

Sources of weights: Household expenditure surveys.

Frequency of weights: Above 5 years

Price updating of weight reference period to the index reference period: Se realizó un ajuste de las ponderaciones de los bienes y servicios del período de referencia al período base aplicando la variación de precios reportada en este período.

Weights for different population groups or regions: Para el IPC oficial se trabaja con las ponderaciones agrupadas para el área de cobertura definida. Para estudios específicos se realiza la separación del área de cobertura por niveles de ingreso.

D: Sample design

Sampling methods:

Outlets: Simple random, judgmental sampling

Frequency of sample updates:

Outlets: Continuous (on a rotating basis)

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Para artículos = cálculo de variabilidades de precios. Puntos de venta = auto representadas y selección por muestro aplicado.
Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Se visita cada punto de venta y se consulta cuál es la variedad que tiene mayor venta y que se mantiene siempre en inventario.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 114, Outlets: 2,100, Price observations: 14,500

Frequency with which prices are collected: Se recopilan precios de todos los bienes y servicios de la canasta de consumo, todos los meses. Alquiler de vivienda trimestral.

Reference period for data collection: Se recopilan precios desde el primer hasta el penúltimo día hábil del mes para los artículos de todos los grupos de bienes y servicios. Los precios de los bienes y servicios centralizados se consultan después de la primera quincena del mes.

Methods of Price Collection

- Personal data collection for: alimentación, vestido, electrodomésticos
- Telephone interviews for: servicios médicos, bienes y servicios centralizados.
- Internet for: productos farmacéuticos.
- Official tariffs for: combustibles, tarifas de servicios públicos.

Treatment of:

Discounts and sales prices: Se toman los precios en oferta que se espera que vuelvan en corto plazo a su precio normal y que no sea liquidaciones ni productos defectuosos.

Black market prices: Not collected.

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

Missing or faulty prices: Se le asigna un coeficiente de imputación a los precios faltantes, este factor corresponde a la variación porcentual de los precios recolectados del mismo artículo

Period for allowing imputed missing prices: Si un precio permanece faltante por un máximo de tres meses, debe ser sustituido por otro con las mismas características, si es posible en el mismo establecimiento y si no, en otro establecimiento de la misma ruta de trabajo de campo.

Disappearance of a given type or quality from the market: Si una variedad desaparece definitivamente del mercado, se sustituyen los precios por los de otra variedad similar o que sustituya a la anterior.
Quality differences: Se aplican los métodos de calidades equivalente y solapamiento de calidades.

Appearance of new items: No se incluyen nuevos artículos hasta que se haga un cambio de base del IPC

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: No se tiene artículos estacionales en el IPC.

Treatment of housing

Treatment of owner-occupied housing: No se considera en el IPC

Types of dwellings covered by the rent data: Para la vivienda en alquiler se trabaja con tres réplicas de tamaño similar, cada vivienda se visita cuatro veces al año, pero para el cálculo mensual se utiliza el total de la muestra, asumiendo que los precios de las otras dos réplicas se mantienen igual.

F: Computation

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

Formula of aggregating regional/population group indices into national index: No se tienen índices regionales ni índice nacional.

Monthly and annual average prices: No se realizan ajustes por variaciones estacionales.

Seasonally adjusted indices: No se realizan ajustes por variaciones estacionales.

Software used for calculating the CPI: Sistema de cálculo diseñado por funcionarios de la institución en una plataforma de visual basic, con manejador de bases de datos de SQL server y reportes en Crystal Reports.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Revisión de la información traída del campo previo a su ingreso al sistema de cálculo. Revisión de precios, pesos, características y verificación en caso de dudas.

Control procedures used to ensure the quality of data processed: Se revisan listados de precios por artículo para detectar valores atípicos y analizar tendencias en las variaciones de los precios.

H: Documentation and dissemination
**Timeliness of dissemination of the CPI data:** Se recogen precios hasta el penúltimo día hábil de cada mes y se publica el segundo día hábil del mes siguiente al mes de referencia.

**Level of detailed CPI published**

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

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

**Separate indices published for specific population groups:** No

**Type of products for which average prices are calculated and disseminated:** None

**Documentation**

**Publications and websites where indices can be found:** Boletín mensual Índice de Precios al Consumidor. Comportamiento de los precios I Semestre del año. Comportamiento de los precios durante el año.

**Publications and websites where methodological information can be found:** Metodología del Índice de Precios al Consumidor, Base Julio 2006, San José, Costa Rica, Setiembre 2006, [www.inec.go.cr](http://www.inec.go.cr)

**I: Other Information**

Reported by the country in 2012.

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**Cote D'Ivoire**

**A: Identification**

**Title of the CPI:** Indice Harmonisé des Prix à la Consommation (IHPC)

**Organisation responsible:** Service Prix et Commerce

**Periodicity:** Mensuelle

**Price reference period:** 2008

**Index reference period:** 2008

**Weights reference period:** 2008 l'enquête dépenses des menages.
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: Main city (can include surrounding areas)

Price collection: Main city (can include surrounding areas)

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

Population groups excluded: Low income households (8874) and high income households (1100).

Consumption expenditure includes:

- Housing maintenance, minor repairs;
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims

Consumption expenditure excludes:

- 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;
- 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;
- Second hand goods purchased;
- Luxury goods;
- Financial services (including fees for financial advice, brokerage fees);
- Interest payments (excluding mortgage interest payments);
- Life insurance premiums;
- Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
- 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: Indice harmonisé des prix à la consommation, ses objectifs sont:


Classification: La Nomenclature de consommation ouest africaine adoptée pour la construction des indices harmonisés des pays de l’UEMOA (NCOA-IHPC) est directement dérivée de la nomenclature internationale 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. L’enquête pour la détermination des pondérations s’est effectuée dans la même année que l’enquête prix pour les prix de base (année 2008).

Weights for different population groups or regions: No.

D: Sample design

Sampling methods:

Localities: Stratified sampling with simple random sampling in each stratum

Outlets: Judgmental sampling

Frequency of sample updates:

Outlets: Continuous (on a rotating basis)

Products: Continuous (on a rotating basis)
Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Choix raisonné

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 10 communes d'Abidjan, Outlets: 1,882

Frequency with which prices are collected: Pour les produits vendus en unité non standard, 30 relevés au minimum, répartis sur l'ensemble des marchés-échantillons, sont effectués mensuellement. Pour les produits vendus en unité standard, on effectue au moins 20 relevés par mois ; Meuble: mensuel; Loyer: On constitue un échantillon de 150 logements fixes répartis sur les différentes variétés retenues en fonction de leur pondération, mais en retenant au moins 10 logements pour une variété donnée. Pour chaque variété, on enquête chaque mois 1/3 des ménages occupant des logements fixes retenus. Un ménage est donc visité une fois par trimestre.

Reference period for data collection: Période de référence - un mois

Methods of Price Collection
- Personal data collection for : homogènes standard, hétérogènes, homogènes non standard.
- Telephone interviews for : services.
- Official tariffs for : eau, electricité, carburant.

Treatment of:

Missing or faulty prices: Pour estimer le prix manquant, on a le choix entre deux méthodes : la méthode d’estimation itérative ou la méthode exogène.

Period for allowing imputed missing prices: 2 mois

Disappearance of a given type or quality from the market: Le produit remplaçant doit être un produit bien vendu aussi proche que possible du produit qu’il remplace. Il est : i) un produit équivalent dans le même point de vente; ii) à défaut, le même produit ou un équivalent dans un autre point de vente du même type ; iii) à défaut, le même produit ou un équivalent dans un point de vente d'un autre type; iv) à défaut, un produit différent dans le même point de vente ; v) à défaut, un produit différent dans un autre point de vente.

Quality differences: Le prix de base du nouveau produit est considéré comme égal au prix de base de l'ancien produit. (Direct comparison)

Appearance of new items: Pour calculer le prix fictif du nouveau produit à la période de base, la méthode dite « décentralisée » est appliquée. Le prix à la période de base du nouveau produit est calculé en enchaînant les variations du nouveau produit à celles de l'ancien produit, en négligeant la variation inconnue due uniquement à la substitution:
Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Fruits, légumes frais

Seasonal food items: Seasonal food items are included in the CPI using variable weights approach: the weights vary over the year.

Seasonal Clothing: Nous n'avons pas de vêtements saisonniers.

Method to impute the price of seasonal items: Repartition des pondération aux produits de même poste.

Treatment of housing

Treatment of owner-occupied housing: Les loyers imputés ne sont pas prix en compte

Types of dwellings covered by the rent data: On constitue un échantillon de 150 logements fixes répartis sur les différentes variétés retenues en fonction de leur pondération, mais en retenant au moins 10 logements pour une variété donnée. Pour chaque variété, on enquête chaque mois 1/3 des ménages occupant des logements fixes retenus. Un ménage est donc visité une fois par trimestre. Remarque : pour le calcul de l’indice des loyers, on interroge également des agents immobiliers (formels ou non) sur les variations des loyers en cas de changement d’occupant.

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: Indice geometrique pour les variétés hétérogenes et les logements, indices Dutot pour les homogenes.

Formula of aggregating regional/population group indices into national index: Indice de Laspeyres.

Monthly and annual average prices: Prix moyens capitale: Variété ordinaire: Le prix moyen annuel est obtenu en effectuant la moyenne arithmétique simple des prix moyens mensuels; Variété saisonnière: Le prix moyen annuel est obtenu en effectuant la moyenne arithmétique pondérée, par les pondérations mensuelles des prix moyens mensuels.

Software used for calculating the CPI: CHAPO et PHOENIX -UEMOA

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Après un contrôle manuel des questionnaires, le contrôle informatique d' exhaustivité a pour but de repérer l'ensemble des informations manquantes.
Control procedures used to ensure the quality of data processed: Variétés de type O2 La quantité manquante est remplacée par la quantité de l'unité de vente du même point de vente du mois précédent. Variétés de type O3 Méthode 1 la quantité manquante est remplacée par la quantité moyenne des relevés de quantité des points de vente du même jour, hétérogène: reconduction des prix du mois précédent

**H: Documentation and dissemination**

Timeliness of dissemination of the CPI data: 10 jours au plus après la fin du mois sous revue

**Level of detailed CPI published**

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

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

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

Separate indices published for specific population groups: Pauvres et non pauvres

Type of products for which average prices are calculated and disseminated: produits importés, produits locaux, produits frais, produits énergétiques, produits hors énergie et hors frais.

**Documentation**

Publications and websites where indices can be found: Bulletin des prix moyens annuels, Bulletin mensuel IHPC

Publications and websites where methodological information can be found: [www.ins.ci](http://www.ins.ci)

**I: Other Information**

Reported by the country in 2012.

**Cyprus**

**A: Identification**

Title of the CPI: Consumer Price Index

Organisation responsible: Statistical Service of Cyprus, Ministry of Finance

Periodicity: Monthly
Price reference period: 2005 = 100

Index reference period: 2005 = 100

Weights reference period: 2009

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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Urban areas

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

Population groups excluded: Institutional households (0.46%).

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 (imported second hand cars);
- Luxury goods;
- 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;
- 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: The Consumer Price Index (CPI) is an economic indicator constructed to measure the changes of prices over time of consumer goods and services acquired, used or paid by households. CPI is used for the estimation of inflation; it measures the average percentage change of prices of various goods and services (shopping basket) that households consume in Cyprus. CPI is also used for many other different purposes, including cost of living allowance (wage indexation), in the economic and monetary policy (interest-rates, productivity, GDP, etc.), in the collective agreements, adaptation of contracts (projects, rents etc.).

Definition of consumption expenditures: For the derivation of the weights the Household Budget Survey is used, which is conducted by the Statistical Service of Cyprus (every 5 years). This survey records the daily expenses of specific households for two weeks. The households sample is distributed to the whole year. Major purchases are recorded for different period, for example cars purchases are covered for one year back and for clothes and footwear purchases for three months back. At the end, all expenses are converted to annual expenditure.

Classification: COICOP

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: No

D: Sample design

Sampling methods:

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

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:* The samples of localities and outlets remain the same.

*Outlets:* The samples of localities and outlets remain the same.

*Products:* Continuous (on a rotating basis)

**If sample updates are irregular indicate when last updates were introduced:** In 2010 products list was updated based on the household budget survey. In 2012, a 4th retailer was introduced for the capital of the island.

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:** For CPI purposes 3 observations for each product/service are collected from each town. This is considered as a sufficient data for Cyprus, which is a relatively small market. All cities are included in the sample. The selection of outlets is based on their sales.

**Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office:** The cut-off sampling is used (the elements with the highest sales) as reported from the shop owners.

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Localities: 4, Outlets: 1,400, Price observations: 10,000

**Frequency with which prices are collected:** Fruit, vegetables and fuels, meat and potatoes- weekly; Education- annually; All the other products- monthly.

**Reference period for data collection:** Fruit, vegetables and fuels- specific date, on Thursday. All the other products- a full month, between 1 – 24th of each month. For the same outlet the time lag between two successive visits is one month.

**Methods of Price Collection**

- Personal data collection for all products except those mentioned below.

- Telephone interviews for rents and hotels.

- Internet for transport by air, telephone and bank charges.

- Official tariffs for water supply, refuse collection and electricity.

**Treatment of:**

**Discounts and sales prices:** They are used in the calculation of the index.

**Second hand purchases:** Included (e.g. imported second-hand cars).
**Missing or faulty prices:** Fruits and vegetables – re-weighting of the non-missing prices; Other products – carrying forward the previous observation for one month.

Period for allowing imputed missing prices: For seasonal products (Clothing and footwear) No replacement is done and the last observation is used. For the rest of the products, a missing price is allowed for 1 month. Then, the product is replaced with a similar one (similar specifications) and the price is collected for both the previous and the current month for bridging.

**Disappearance of a given type or quality from the market:** Replacement of item (similar specification) (Bridging).

**Quality differences:** Trace the change of price due to quality change only.

**Appearance of new items:** Major new items are taken into account and they are given the appropriate weight with the next revision of the index (every 5 years). Significant items are introduced if necessary in December of the previous year and they are given the index of the 4digit COICOP category in which they belong.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** Fresh fruits, vegetables, clothing and footwear. For Clothing and Footwear No replacement is done and the last observation is used. Re-weighting of the non-missing prices is done for fruits and vegetables.

**Seasonal food items:** Seasonal food items are included in the CPI using fixed weight but the composition changes according to availability (e.g. fruits and vegetables).

**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:** The method used to impute price development in out-of season periods is carrying forward the last observed price.

**Treatment of housing**

**Treatment of owner-occupied housing:** Owner occupied housing is not included in the CPI since 2011.

**Types of dwellings covered by the rent data:** Detached houses, semi-detached houses, complementary houses, dwelling to mixed use building, flats, apartment building. Rent data is collected monthly.

**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: Weighted average

\[ I = \frac{\sum I_i \times W}{\sum W} \]

Where \( I \) is the index, \( W \) is the weight, and \( I_i \) is the individual index (sub-index) of the species \( i \) (or group of similar species).

Formula of aggregating regional/population group indices into national index: Weighted average. The weights for the four districts are: Nicosia 42%, Limassol 30%, Larnaca 18% and Paphos 10% which reflect the consumption of the population.

Monthly and annual average prices: Weighted average is used for calculating monthly average prices. Arithmetic mean is used for calculating annual average prices.

Seasonally adjusted indices: No

Software used for calculating the CPI: Microsoft Excel

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: The quality of the data is ensured by the fact that all prices are collected by price collectors visiting the outlets. Also, all price collectors attend a joint meeting with the management of the CPI section each month where price issues are discussed in detail, to secure a common treatment to problems.

Control procedures used to ensure the quality of data processed: Data entry and major fluctuations of the prices of about 15% are doubled checked. Price changes which are plus or minus 15% are checked individually.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI data is published on the 1st Thursday of each month following the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Separate indices published for specific population groups: No

Type of products for which average prices are calculated and disseminated: None

Documentation

Publications and websites where indices can be found: Publication of the CPI is made with an announcement to the media, in the Official Government Gazette and on the website of the
Czech Republic

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Czech Statistical Office (CZSO)

Periodicity: Monthly

Price reference period: December 2011 = 100

Index reference period: 2005 = 100

Weights reference period: 2010

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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals including institutional households

Consumption expenditure excludes:

- Second hand goods purchased (except second hand cars)
C: Concepts, definitions, classifications and weights

**Definition of the CPI and its objectives:** CPI measures pure price changes in a fixed market basket of goods and services of constant quality and quantity bought by households.

**Classification:** Classification of Individual Consumption by Purpose

**Sources of weights:** Household expenditure surveys and national accounts.

**Frequency of weight updates:** 3-5 years

D: Sample design

**Sampling methods:**

*Outlets:* Purposive sampling

*Products:* Purposive sampling

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:**

Item selection: Purposive sampling (based on household budget survey).

Outlet selection: Purposive sampling (based on outlet survey).

**Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office:** The CZSO supplies general specifications to price collectors; the collectors themselves record detailed descriptions covering characteristics such as brand, size, fabric, etc. into their electronic recorders or paper forms.

E: Data Collection

**Approximate number of localities, outlets and price observations:** Outlets: 9,000, Price observations: 65,000

**Frequency with which prices are collected:** Prices are collected monthly.

**Reference period for data collection:** Prices are collected between the 1st and the 20th day of the reference month. Fuels are collected 4 times per month.

**Methods of Price Collection**

- Personal data collection
- Central price collection for administrative prices.

**Treatment of:**

**Second hand purchases:** Not included in the CPI except for second hand cars.
**Disappearance of a given type or quality from the market:** If a product disappears from the market, it is replaced by a similar product complying with the product description.

**Quality differences:** The methods for quality adjustment used include direct adjustment and imputation methods.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** The selected representative items for fresh fruit and vegetables are sold during the entire year. For other seasonal items, the latest recorded prices are unchanged carried forward until the items reappear on the market.

**Method to impute the price of seasonal items:** Carry forward the last observed price.

**Treatment of housing**

**Treatment of owner-occupied housing:** Imputed rent of apartment owners is included since the January 1995 revision. Basis for the imputation are rents for co-operative housing, which are neither regulated nor subsidized by government.

**Types of dwellings covered by the rent data:** Rental houses dwellings and co-operative dwellings.

**F: Computation**

**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index) (Chained form)

**Formula to aggregate elementary indices to higher-level indices:** Aggregation of elementary indices to higher-level indices is by modified Laspeyrers formula with the fixed base given by

\[
I = \frac{\sum p'_1 \cdot p_0 q_0}{\sum p_0 q_0} \times 100
\]

where

- \( I \) = index for the reference period to base period (base index)
- \( p'_1 \) = price of goods (services) in the reference period (current) period
- \( p_0 \) = price of goods (services) in base period
- \( p_0 q_0 \) = constant weight – household expenditures on goods (services) in the base period

**G: Editing and validation procedures**
Control procedures used to ensure the quality of data collected: Before the CPI is computed, CZSO division specialists evaluate the recorded price changes and the reasons for price changes as indicated by the price collectors. In addition, CZSO division staff checks the price collectors in individual regions. Finally, the CZSO center evaluates data consistency with information on the market (top control).

Control procedures used to ensure the quality of data processed: Once a year the official fixed-weight CPI is compared with a CPI calculated using current weights (using household budget data for the last calendar year).

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI data is disseminated within 15 days after the end of the reference period.

Level of detailed CPI published

Paper publication: All items CPI, Division level

Online: All items CPI, Division level

Separate indices published for specific population groups: Separate indices are compiled for (i) households in total, (ii) households of pensioners, and (iii) households living in Prague.

Documentation

Publications and websites where indices can be found: Consumer price indices can be found at http://www.czso.cz/eng/redakce.nsf/i/inflation_consumer_prices_ekon

Publications and websites where methodological information can be found: Methodological information about Czech CPI can be found in the “Consumer Price Indices – User’s Methodological manual” available at http://www.czso.cz/eng/redakce.nsf/i/what_is_it_inflation RESP_inflation_rate

I: Other Information

Reported by the ILO in 2013.

Democratic Republic of Congo

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: The National Institute of Statistics (INS)
**Periodicity:** Monthly

**Index reference period:** August 1998 = 100

**Weights reference period:** 1995 Household Budget and Consumption Survey for Kinshasa.

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

**B: CPI Coverage**

**Geographical Coverage**

*Weights:* Nation-wide

*Price collection:* Nation-wide

**Population coverage:** Resident households of nationals.

**C: Concepts, definitions, classifications and weights**

**Sources of weights:** Household expenditure surveys.

**Frequency of weight updates:** Above 5 years

**D: Sample design**

**E: Data Collection**

**Methods of Price Collection**

- Personal data collection

**Treatment of seasonal items and seasonality**

**Treatment of housing**

**F: Computation**

**Formula to aggregate elementary indices to higher-level indices:** The index is a Laspeyres index.

**G: Editing and validation procedures**

**H: Documentation and dissemination**
Timeliness of dissemination of the CPI data: The data are released 3 days after the end of the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation

Publications and websites where indices can be found: Weekly: Evolution des prix des produits de grande consommation (Price Changes of Mass Consumption Goods), INS (in French); Monthly: Indices des prix à la consommation des ménages (Household Consumer Price Indices), INS (in French)

Publications and websites where methodological information can be found: A detailed presentation of the methodology is furnished in the following documents: “Méthodologie générale de l’indice des prix” (Price Index General Methodology), “Pour comprendre l’indice des prix au Congo” (Understanding Price Indices in the Congo), and “Mettre en place un indice des prix au Congo” (Introducing a Price Index in the Congo). These documents are not published but can be consulted by the public at the INS, by contacting the Director of General Statistics at the INS.

I: Other Information

Completed by ILO in 2013.

Denmark

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Statistics Denmark

Periodicity: Monthly

Index reference period: 2000 = 100

Weights reference period: 2003 weights of the consumer groups in the national accounts combined with a household budget survey.

Main uses of CPI: Indexation of wages, pensions and/or social security payment, indexation of rents, contracts and/or other payments and main inflation indicator used for monetary policy.
B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals and temporary visitors.

Consumption expenditure excludes:

- Life insurance premiums;
- Gambling expenditure, gross of winnings

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The CPI is a fixed weight index. The weights are updated every 4 or 5 years and the index is chained to ensure a coherent time series.

Definition of consumption expenditures: Household final monetary consumption expenditure.

Classification: COICOP (Classification of individual consumption by purpose)

Sources of weights: Household expenditure surveys and national accounts.

Frequency of weight updates: Above 5 years

D: Sample design

Sampling methods:

Localities: Stratified sampling with simple random sampling in each stratum

Outlets: Purposive sampling

Products: Judgmental sampling

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Outlet sample: Purposive sampling

Item selection: Judgemental.

Sample size: 25,000 prices from approximately 2,000 outlets. In addition prices for approximately 4,000 rental units are collected once a year.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: The item/product specifications used are relatively broad.
E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 2,000, Price observations: 25,000

Frequency with which prices are collected: Prices are collected monthly or with less frequency for particular goods and services whose prices are known to change less frequently.

Reference period for data collection: Prices are collected every month in the period 7th-15th. Prices for fresh foods and energy are always collected across more than one working week.

Methods of Price Collection

- Personal data collection for clothing and fresh food
- Mailed questionnaires
- Internet
- Price lists

Treatment of:

Missing or faulty prices: The majority of missing prices are imputed by the average price change in the corresponding elementary aggregate.

Disappearance of a given type or quality from the market: The nearest substitute or the items with largest sales are chosen as replacement, depending on the circumstances.

Quality differences: When the quality is assessed not to be significantly changed, the whole of the price difference is taken into the index. Where the whole of the price difference is considered a result of a quality change, no price changes are taken into the index. In many cases imputation is used to correct for quality change. Otherwise overlapping prices or "monthly matched model and chaining" are used if possible and appropriate. Explicit quality adjustments are made for rental

Appearance of new items: Newly significant goods and services can be introduced into the sample every month as long as they belong to the existing elementary aggregates.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Clothing and fresh food. Two sets of clothing, for summer and winter respectively, are used: only the summer clothing enters into the index in the summer period and vice versa in the winter period. For fresh fruits and vegetables only items that can be found the whole year are followed.

Treatment of housing
**Treatment of owner-occupied housing:** Rental equivalent approach is used for owner occupied housing.

**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:** Elementary aggregate indices are combined into sub-indices and into the total CPI by the use of the Laspeyres formula.

**Seasonally adjusted indices:** The data are not seasonally adjusted.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** Verification of prices: Extremes are detected by the Hidiroglou-Berthelot (HB) model. The HB extremes are checked and included or excluded accordingly.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** The consumer price index is published on the 10th or the first working day thereafter, following the month in which the data was collected.

**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

**Documentation**

**Publications and websites where indices can be found:** Monthly: “Monthly Review of Statistics”. The Internet website: [http://www.dst.dk/priser](http://www.dst.dk/priser) contains time series for consumer prices, the net price index and the Danish harmonized index of consumer prices. Also see [www.statbank.dk](http://www.statbank.dk).

**Publications and websites where methodological information can be found:** The methodology is described in “Declaration of Content” which can be found at [http://www.dst.dk/en/Statistik/dokumentation/Declarations/consumer-price-index.aspx](http://www.dst.dk/en/Statistik/dokumentation/Declarations/consumer-price-index.aspx)

**I: Other Information**

Completed by ILO in 2013.
Djibouti

A: Identification

Title of the CPI: Consumer Price Index (Djibouti)

Organisation responsible: Direction de la Statistique et des Études Démographiques (DISED)

Periodicity: Monthly

Index reference period: March/April 1999 = 100


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 and computation of purchasing power of households.

B: CPI Coverage

Geographical Coverage

Weights: Main city (can include surrounding areas)

Price collection: Main city (can include surrounding areas)

Population coverage: Resident households of nationals.

Population groups excluded: Expatriate households.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index is a measure for tracking changes over time in the prices of goods and services commonly used or consumed.

Classification: West African Consumption Classification (NCOA) with 10 consumption functions, 32 groups, 73 subgroups, and 105 headings

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

D: Sample design

E: Data Collection
Approximate number of localities, outlets and price observations: Outlets: 163, Price observations: 2,200

Frequency with which prices are collected: Price collection is done regularly every month.

Methods of Price Collection

- Personal data collection

Treatment of:

Missing or faulty prices: If a product is temporarily missing (seasonal goods in particular), the last observed price is repeated as often as necessary.

Disappearance of a given type or quality from the market: If a product disappears, it is replaced by a similar product.

Appearance of new items: No new products have been introduced to date.

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

Formula to aggregate elementary indices to higher-level indices: Aggregation is by Laspeyres index.

Seasonally adjusted indices: The index is not seasonally adjusted.

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI is published in a monthly bulletin with a lag of about a 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

Documentation

Publications and websites where methodological information can be found: Short methodology is available in the CPI Monthly bulletin.

I: Other Information

Completed by ILO in 2013.

Dominica

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Central Statistical Office

Periodicity: Quarterly

Index reference period: June 2010 = 100


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 and computation of purchasing power of households.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Classification: COICOP (Classification of individual consumption by purpose) with groups and sub-groups up to seventh level.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

D: Sample design
Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Detailed specifications are maintained for describing the items in the index to assure comparison of the prices of like goods from month to month.

**E: Data Collection**

**Frequency with which prices are collected:** Prices are collected monthly.

**Reference period for data collection:** Prices are collected between the 8th – 20th of each month.

**Methods of Price Collection**

- Personal data collection

**Treatment of seasonal items and seasonality**

**Treatment of housing**

**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:** Aggregation is by Laspeyres formula.

**G: Editing and validation procedures**

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** Monthly CPI is released by the 15th of the following 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

**Documentation**

**Publications and websites where indices can be found:** Quarterly: CSO's "Quarterly Consumer Price Index"; Other: CSO "Annual CPI Report", CSO "Statistical Digest"

**I: Other Information**

Completed by ILO in 2013.
Dominican Republic

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Central Bank of the Dominican Republic

Periodicity: Monthly

Index reference period: December 2010 = 100


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 and computation of purchasing power of households.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Population groups excluded: Institutional households.

Consumption expenditure includes:

- 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

Consumption expenditure excludes:

- Housing maintenance, minor repairs;
- Interest payments (excluding mortgage interest payments);
- Life insurance premiums;
- Gambling expenditure, gross of winnings;
- 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 Consumer Price Index (CPI) measures changes in the general price level goods and services purchased by households in a given reference period.

**Classification:** COICOP (Classification of individual consumption by purpose) 12 divisions.

**Weights include value of consumption from own production:** Yes

**Sources of weights:** Household expenditure surveys.

**Frequency of weight updates:** Above 5 years

**Price updating of weight reference period to the index reference period:** Weights to the current CPI (2010/12=100) were cost updated, taking into account changes in prices of the items in the basket so that they reflect the changes in prices in the current base period.

D: Sample design

**Sampling methods:**

*Outlets:* Judgmental sampling

*Products:* Judgmental sampling

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:** Outlet selection: A representative random sample of outlets was chosen depending on where the households purchase their goods mostly.

Item/Variety selection: Items were selected on the basis of their specification in terms of model, make, unit of measure or quantity.

**Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office:** A specification and marking survey of items was conducted between November 2009 – February 2010. Items/ varieties are carefully selected following the brand, amount, model, origin, materials or type, size, shape, weight, packaging etc.

E: Data Collection

**Approximate number of localities, outlets and price observations:** Price observations: 7,963

**Methods of Price Collection**

- Personal data collection
- Mailed questionnaires

- Telephone interviews for prices set by companies, utilities prices, rates of hotel accommodation, fuel prices, mechanic repairs etc.

- Internet

**Treatment of:**

**Discounts and sales prices:** Discounts that are not wide spread to all consumers are not included in price collections.

**Missing or faulty prices:** Imputation procedure for missing prices, taking into account the variation of the prices reported.

**Disappearance of a given type or quality from the market:** In relation to prices that can not be obtained by the unavailability of good in the outlets visited, temporary closure or change of activity is performed.

**Quality differences:** The adjustment for quality change occurs when an item in a given establishing market disappears and is replaced by another of different specifications. The adjustment is done by estimating the price of comparable goods, so that variation corresponds solely to changes in price and not to differences in quality of goods and services.

**Treatment of seasonal items and seasonality**

**Treatment of housing**

**Treatment of owner-occupied housing:** Owner occupied housing is excluded from the CPI.

**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:** The aggregation formula is the Laspeyres formula with fixed weights expressed as:

\[
I^e = \sum_k p_k^e q_k^0 = \sum_k W_k^0 \left( \frac{p_k^e}{p_k^0} \right)
\]

where

- \( p_k \) = price for item \( k \)
- \( q_k \) = quantity for item \( k \)
- \( 0 = \) base period
- \( W_k \) = weight for item \( k \) in total expenditure

**G: Editing and validation procedures**
H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI data is disseminated 10 days after the end of the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation

Publications and websites where indices can be found: Press release; Monthly: Monthly report on CPI behavior (Spanish); Quarterly: Report on the Dominican Economy, Domestic Prices section (Spanish), Summary Report on the Dominican Economy (Spanish, English); Internet: The Central Bank publishes monthly CPI results on its website: www.bancentral.gov.do

Publications and websites where methodological information can be found: Methodological information is available in the document 'Indice de Precios al Consumidor (IPC) ' Base diciembre 2010.

I: Other Information

Completed by ILO in 2013.

Ecuador

A: Identification

Title of the CPI: Urban Consumer Price Index

Organisation responsible: National Institute of Statistics and Census

Periodicity: Monthly

Index reference period: 2004 = 100


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, macroeconomic modelling and other analytic uses.
B: CPI Coverage

Geographical Coverage

Weights: Urban areas

Price collection: Urban areas

Population coverage: Resident households of nationals

Population groups excluded: Regions of Insular and Amazonian.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index (CPI) is an economic indicator that measures changes in the general price level for a basket of items (goods and services) consumed and purchased by households in the urban area of the country.

Classification: Classification of Individual Consumption by Purpose (COICOP)

Weights include value of consumption from own production: Yes

Sources of weights: Household expenditure surveys

Frequency of weight updates: Above 5 years

Price updating of weight reference period to the index reference period: Not needed.

D: Sample design

Sampling methods:

Outlets: Judgemental Sampling

Products: Judgemental sampling

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:

Item selection: The items included in the basket of goods are of significant relative importance. This means that a selected item must have a minimum separate weight of 0.019 percent in household consumption expenditure, as indicated by the Income and Expenditure Survey of Urban Households (ENIGHU), which covers 97 percent of total household consumption in each area of study in the 2003-2004 ENIGHU. This can take one of the following forms; i) High relative frequency of consumption: used as the selection criterion for forced inclusion of an item in the CPI basket which, while it may not have very high relative weight in expenditure, should nonetheless be included in the basket, such as matches and salt, for example; ii) Expectation of increasing demand for a product: this criterion allows for the inclusion of items that appear for the first time in the 2003-2004 ENIGHU with
a low weight in expenditure and a low frequency of demand, but with high expectations for the future, so that not including this item would lead to rapid obsolescence of the CPI basket. In addition, the following complementary item selection criteria are used: i) Items that are representative of price movements for similar items not included in the CPI basket; ii) Items that are highly likely to remain on the market; iii) Items having characteristics and specifications that facilitate tracking of prices in reporting establishments; and iv) Items that are part of regular household consumption. The process of selecting items to construct the CPI basket endeavours to protect comparability with the previous Urban Consumer Price Index (UCPI), where appropriate, to ensure continuity of the statistical series being produced.

Outlet selection: Outlets are selected in accordance with the number of items that have to be researched in each specific week.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: The specifications set for each item are precise and detail the qualities and characteristics of the various items selected, for identification purposes. Specifications include: quality, weight, size, content, height, model, etc., and the aim is always to provide as detailed a description as possible. The item description includes generic products and their specific characteristics. This detailed description makes it possible to focus on changes in prices rather than changes in other factors.

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 2,392. Price observations: 10,010

Frequency with which prices are collected: Prices are collected weekly, every two weeks, monthly, twice or once a year, or on special occasions, depending on the frequency with which such goods are acquired by most consumers and in light of the dynamics of price change over time.

Methods of Price Collection

- Personal data collection

Treatment of:

Discounts and sales prices: Discount and sales prices are not included in the CPI.

Missing or faulty prices: If the price for an item could not be obtained, imputation is performed by applying the price relative for the pertinent item to which the item belongs. Missing prices are calculated using the following procedure: Based on the other prices collected for the same item at other reporting establishments in the city to which the CPI refers, the respective item-establishment relatives are calculated for two consecutive reference periods t-1 and t, on the basis of which the geometric mean of the relatives for prices actually collected for the item are obtained. The geometric mean thus obtained represents the change in mean prices for the other varieties making up the item level (current month compared with previous month), which is applied to the item from the previous month whose price is to be estimated for the current month, thus obtaining the imputed price of the item in question for the current month.
Period for allowing imputed missing prices: 2 months

**Disappearance of a given type or quality from the market:** If an item within the basket disappears from the market, it is substituted with the most similar item. The replacement item must have similar specifications in terms of quality, weight, quantity, and whose weighting may be retained.

**Quality differences:** No quality adjustment is done. When the items found (as substitutes) do not meet all the required criteria, prices are not monitored until proper replacements are found.

**Appearance of new items:** No new products are introduced in the basket until the review and updating of the basic basket with its pertinent weights.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** When a seasonal item is unavailable, its price is imputed by using the price relative of in-season products.

**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:** Owner-occupied housing is excluded from the CPI.

**Types of dwellings covered by the rent data:** The weight for "rents" is based on the monetary cost incurred by households for payment of rent; cash purchase of housing; payment of instalments for acquisition of housing credit; expansions, maintenance, and other costs.

**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:** The basic indices are aggregated to obtain the higher-level indices, using the weights assigned to each item in the CPI basket by the Laspeyres formula defined as

\[
I_{t,0} = \frac{\sum_{i=1}^{n} p_{i,t} * q_{i,0}}{\sum_{i=1}^{n} p_{i,0} * q_{i,0}}
\]

where
- \(I_{t,0}\) = Price index in period \(t\) relative to the base period 0.
- \(p_{i,t}\) = Price of item \(i\) in period \(t\).
- \(p_{i,0}\) = Price of item \(i\) at base period 0.
- \(q_{i,0}\) = Quantity of item \(i\) consumed in the base period.
Seasonally adjusted indices: The data are not seasonally adjusted.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: The price verification and validation process includes a number of steps. The first validation is performed manually at the city where the information has been gathered. Any errors detected are corrected immediately. In addition, when the central office (located in Quito) of the National Institute of Statistics and Census (responsible for calculating the IPCU) receives the information, it also subjects it to a review process in order to verify data consistency.

Control procedures used to ensure the quality of data processed: Verification of processing is achieved by means of intermediate reports (8) which serve to monitor indices and changes therein. If there has been a significant increase or decrease in the indices, the data entered is checked to determine whether an error was made.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI data is disseminated 5 business days after the end of the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division level

Online: All items CPI, Division level

Documentation

Publications and websites where indices can be found: "Boletín de Indice de Precios al Consumidor" (Consumer Price Index Bulletin), Indice de Precios al Consumidor y Productor, Salarios, Empleo y Mercado Laboral" (Consumer and Producer Price Indices, Salaries, Employment and Labor Market), "Información Estadística Mensual" and Boletín Anuario" (Yearbook Bulletin) all in Spanish only are available for a fee from the Departamento de Publicaciones Económicas. CPI data is available at http://www.ecuadorencifras.gob.ec/indice-de-precios-al-consunidor/

Publications and websites where methodological information can be found: Methodological information about the CPI is available under the sub-title “Metodología” at http://www.ecuadorencifras.gob.ec/indice-de-precios-al-consunidor/

I: Other Information

Reported by the ILO in 2013.

Egypt
A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Central Agency for Public Mobilization and Statistics (CAPMAS)

Periodicity: Monthly

Price reference period: January 2010 = 100

Index reference period: January 2010 = 100


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 temporary visitors.

Population groups excluded: Institutional households.

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;
- Housing maintenance, minor repairs;
- Second hand goods purchased (second hand cars only);
- Luxury goods;
- 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);
- Occupational expenditures

Consumption expenditure excludes:

- 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;
• 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);
• 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:** CPI is the measure of the average change over time in the prices of consumption items - goods and services - that people buy for everyday life. The Goals are: i) CPI reflects the change in the level of prices of commodities and services and wages; ii) One of the important indicators of inflation; iii) Important tool used for GDP calculation with fixed prices.

**Definition of consumption expenditures:** Consumption Expenditure may be measured in term of: a) Use approach - Implies the total value of all goods and services actually consumed during the reference period irrespective of whether they were acquired during that period or not, and whether the full payment was made during that period or not. This approach is used for food, non-alcoholic beverages and alcoholic beverages, tobacco and narcotics; b) Acquisition approach - Implies the total value of goods and services delivered during the reference period, whether the full payment for the goods and services was made during that period or not, and whether they were used during that period or not. This approach is used in clothing and footwear; c) Payment approach - Implies the total payment made for goods and services during the reference period irrespective of whether the goods and services paid for were fully delivered during that period or not, and whether they were used during that period or not. This approach is used in housing and its accessories, health, operation of personal transport equipments, transport services, communications, other recreational items and equipments, gardens and pets, recreational and cultural services, newspapers, books and stationery, package holidays, education, restaurants and hotels and personal care. Both Acquisition and payment approaches are used in furnishings, household equipments and routine maintenance of the house, purchase of vehicles and some items of recreation and culture such as audio-visual, photographic and information processing equipments and other major durables recreation and culture. The purpose of applying acquisition and payment approaches to durable and semi-durable items is to serve for both the compilation of consumer price index (acquisition) and welfare analysis (payment).

**Classification:** COICOP (Classification of individual consumption by purpose)
Weights include value of consumption from own production: Yes

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Every two years

Price updating of weight reference period to the index reference period: Given the short time period between the 2008/2009 HIEC survey and the base index period in (January 2010), the survey weights are not updated.

Weights for different population groups or regions: Weights for all Egypt (Urban - Rural) i.e. Cairo, Alexandria, Canal Cities, Frontier Governorates, Lower Egypt, Upper Egypt, Rural Upper Egypt and Rural Lower Egypt.

D: Sample design

Sampling methods:

Localities: Sampling with probability proportional to size (PPS)

Outlets: Stratified sampling with PPS sampling in each stratum

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:

Outlets: Annual

Products: Annual

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Localities: Selection is done by using sampling with probability proportional to size (PPS).

Outlets selection is by using stratified sampling with PPS sampling in each stratum.

Products are selected using cut-off sampling (the elements with the highest sales or value of other auxiliary variable are included into the sample).

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

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 14,422, Price observations: 159,373
**Frequency with which prices are collected:** i) Food application: (cereals and pulses, flour and milk products, perfumery) – monthly; (meat and poultry) – weekly; (vegetables and fruit) – weekly; (groceries, canned vegetables and fruit) – monthly; (milk, cigarettes and tobacco, soft drinks etc.) – monthly; ii) Industrial application: (fabrics, textiles and shoes) – monthly; (furniture, tools and household items, a variety of items) – monthly; (electrical Appliance, Automotive) – Monthly; iii) Services application: personal services – monthly; education services – yearly; government services and supply commodities – quarterly.

**Reference period for data collection:** i) Food application: (cereals and pulses, flour and milk products, perfumery) – monthly (from 15th to 21st); (meat and poultry) – weekly; (vegetables and fruit) – weekly; (groceries, canned vegetables and fruit) – monthly (from 15th to 21st); (milk, cigarettes and tobacco, soft drinks etc.) – monthly (from 15th to 21st); ii) Industrial application: (fabrics, textiles and shoes) – monthly (from 1st to 7th); (furniture, tools and household items, a variety of items) – monthly (from 1st to 7th); (electrical appliance, automotive) – monthly (from 1st to 7th), iii) Services application: personal services – monthly (from 8th to 14th); education services – yearly (October); government services and supply commodities – quarterly.

**Methods of Price Collection**

- Personal data collection for all items.
- Internet for gold.

**Treatment of:**

**Discounts and sales prices:** Dealing directly with the advertised price

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

**Missing or faulty prices:** Missing prices are imputed by using a geometric mean and not by re-weighing the non-missing prices.

Period for allowing imputed missing prices: Until the missing price appears again.

**Disappearance of a given type or quality from the market:** Replacement product should be similar in terms of specifications and be top selling.

**Quality differences:** Overlap prices.

**Appearance of new items:** The new items should be the best selling and their prices should be available for two consecutive periods.

**Treatment of seasonal items and seasonality**

**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 using price development of in-season products.

Treatment of housing

Treatment of owner-occupied housing: By the same description (area – place--).

Types of dwellings covered by the rent data: Old and new rent is collected twice a year by visiting the household.

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: Modified Laspeyres formula expressed as

\[ I^t_{\text{Egypt}} = \sum_{a=1}^{8} \sum_{i=1}^{479} S^{-1}_{a,i} \left[ \frac{P_{a,i}^t}{P_{a,i}^{-1}} \right] , \text{ where} \]

\[ S^{-1}_{a,i} = s^0_{a,i} \times \frac{P_{a,i}^1}{P_{a,i}^0} \times \frac{P_{a,i}^2}{P_{a,i}^1} \times \frac{P_{a,i}^3}{P_{a,i}^2} \times \ldots \times \frac{P_{a,i}^{t-1}}{P_{a,i}^{t-2}} = s^0_{a,i} \left( \frac{P_{a,i}^{t-1}}{P_{a,i}^0} \right) , \text{ and} \]

\[ s^0_{a,i} : \text{ the relative weights for category items (i) in area (a) for the weight reference period.} \]

\[ s^0_{a,i} = \frac{e^0_{a,i}}{\sum_{a=1}^{8} \sum_{i=1}^{479} (e^0_{a,i})} , \text{ with} \]

\[ e^0_{a,i} : \text{ the weight as generated from the (2008/2009) HIEC survey and} \]

\[ P_{a,i}^0 = 100 \]

Formula of aggregating regional/population group indices into national index: Modified Laspeyres formula.

Monthly and annual average prices: Geometric means are used for average regional prices.

Seasonally adjusted indices: No

Software used for calculating the CPI: Oracle

G: Editing and validation procedures
Control procedures used to ensure the quality of data collected: By Using $\mu \pm 1.5s$

Control procedures used to ensure the quality of data processed: By Using $\mu \pm 1.5s$

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: 10 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

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

Separate indices published for specific population groups: No

Type of products for which average prices are calculated and disseminated: Annual bulletin prices for food-stuffs and services (producer / wholesale / consumer)

Documentation

Publications and websites where indices can be found: CAPMAS internet website: http://www.capmas.gov.eg


I: Other Information

Reported by the country in 2012.

Estonia

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Statistics Office of Estonia

Periodicity: Monthly

Index reference period: 1997 = 100

Weights reference period: Average expenditure structure of the population in the last year.
Main uses of CPI: Indexation of wages, pensions and/or social security payment, indexation of rents, contracts and/or other payments 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.

Consumption expenditure includes:

- Second hand goods purchased (second hand cars only);
- Life insurance premiums

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: CPI is the average measure of change in prices of goods and services bought in Estonia for the purpose of consumption by Estonian households.

Classification: COICOP (Classification of individual consumption by purpose)

Sources of weights: Household expenditure surveys, national accounts, administrative data and business statistics data.

Frequency of weight updates: Annual

D: Sample design

Sampling methods:

Outlets: Judgmental sampling

Products: Purposive sampling

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Outlet selection: Business statistics is used as the outlet frame. Within a location, outlets selected shall be popular, have significant commodity turnover and availability of goods and services included into CPI.

Item selection: Purposive; number of items per section depends on section weight and variability of price movements of items in the section. Basket of items is reviewed annually, with additions and removals applying from each January index. Selection of
products/varieties is generally purposive; within item specification, price collectors select
products with significant market share.

Sample sizes: On average, about 20,000 prices are collected each month, from 1,800 outlets
in 10 locations.

**Criteria used for selecting an item variety in the outlet in case of loose specifications
provided by the central office:** Both detailed and generic specifications are used. Price
collector’s record detailed descriptions covering characteristics such as brand, size,
fabric/material, etc.

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Localities: 10, Outlets:
1,800, Price observations: 20,000

**Frequency with which prices are collected:** Prices are collected monthly.

**Reference period for data collection:** Price observation period is the week including the
15th day of the month.

**Methods of Price Collection**

- Personal data collection
- Telephone interviews
- Central price collection for processing equipment, mobile phones, phone services, package
holidays, insurance etc.

**Treatment of:**

**Discounts and sales prices:** Discounts referred to all customers are taken into account.

**Second hand purchases:** Prices of second hand cars are included in price collection

**Missing or faulty prices:** When a price observation is temporarily unavailable in a given
month, its price is imputed based upon the price movement of similar products in the same
item in the same locality or carried forward.

**Disappearance of a given type or quality from the market:** When a specific variety is
unavailable in an outlet, another product in the same outlet that most closely meets the
specifications of the previous variety is selected as a replacement product.

**Quality differences:** Adjustments for quality differences are done by central office.
Assistance of specialists from firms and market research organizations may be used.
Supported judgemental quality adjustments are used for mobile phones, option cost approach
for new cars, the monthly chaining and resampling method for data processing equipment.
Appearance of new items: The list of items is reviewed annually in the second half of the year and new products added or old products removed from the January index. Meanwhile, in case of urgent need, the overlapping method is used.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: In the first month an estimated price is used, in the following months the price is estimated according to the price movements of the product class or group to which the out-of-season product belongs. Weights are held constant throughout year.

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 using price development of in-season products.

Treatment of housing

Treatment of owner-occupied housing: Owner occupied housing is not included in the CPI i.e. imputed rentals for housing are excluded.

F: Computation

Formula used for calculation of elementary indices: The arithmetic average of the price ratios (Carli index) (Chained form)

Formula to aggregate elementary indices to higher-level indices: The CPI is Laspeyres type index with fixed weights.

Seasonally adjusted indices: No seasonal adjustment is done.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Specification of products and prices are compared with previous month and questions transmitted to price collectors.

Control procedures used to ensure the quality of data processed: A regular pre-publication meeting is held. Questions arising on sub-indices are discussed and, where necessary, clarified by the staff. Statisticians analyse every item index to ensure movements are consistent with information about commodity.

H: Documentation and dissemination
**Timeliness of dissemination of the CPI data:** CPI data is disseminated on the 5th working day of the month following the end of the reference month.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**

**Publications and websites where indices can be found:** New release "Consumer Price Index" available, in Estonian and English; Monthly: "Estonian Statistics" and "Main Social and Economic Indicators of Estonia" available in Estonian and English; Other: The annual "Statistical Yearbook of Estonia” available as a bilingual publication (Estonian and English); Internet website: [http://www.stat.ee](http://www.stat.ee) for the data published in the news release and the monthly time series data (available in Estonian and in English).

**Publications and websites where methodological information can be found:** A short description of the methodology and sources used in compilation of the CPI is published in the "Statistical Yearbook of Estonia".

**I: Other Information**

Completed by ILO in 2013.

**Ethiopia**

**A: Identification**

**Title of the CPI:** Country and Regional Level Consumer Price Indices

**Organisation responsible:** Central Statistical Agency (CSA)

**Periodicity:** Monthly

**Price reference period:** December 2006 = 100

**Index reference period:** December 2006 = 100

**Weights reference period:** 2004 – 2005

**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, macroeconomic modelling and other analytic uses.
**B: CPI Coverage**

**Geographical Coverage**

*Weights*: Nation-wide  

*Price collection*: Nation-wide

**Population coverage**: Resident households of nationals.

**Population groups excluded**: Institutional households.

**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;  
- Purchase of owner-occupied housing;  
- Housing maintenance, minor repairs;  
- 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);  
- Occupational expenditures;  
- Other business-related expenditures;  
- Social transfers in-kind of goods and services from government and No-profit institutions serving households

**Consumption expenditure excludes:**

- Mortgage repayments;  
- Mortgage interest;  
- 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;  
- Life insurance premiums;  
- Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);  
- Gambling expenditure, gross of winnings;  
- Investment-related expenditures (e.g. purchase of shares/stocks);  
- Second hand goods purchased;  
- Expenditures abroad

**C: Concepts, definitions, classifications and weights**
**Definition of the CPI and its objectives:** Consumer Price Index is defined as a measure of the weighted aggregated change in retail prices paid by consumers for a given basket of goods and services. Price changes are measured by re-pricing the same basket of goods and services at regular intervals, and comparing aggregate costs with costs of the same basket in a selected base period. In a strict sense, the CPI is not a Cost of Living Index. CPI is a proxy indicator of living cost and it uses a sample of a fixed basket of goods and services. It is not designed to measure what consumers actually purchase; rather it measures the cost of purchasing a basket of the same goods and services as in the previous time period. The CPI is designed to cover expenditures of consumption goods and services purchased for household use, but not for business purposes or investment.

**Definition of consumption expenditures:** For food the actual consumption expenditure by the household is recorded (use). For non-food items the acquisition approach is used irrespective of whether the household used it wholly or partly during the survey period.

**Classification:** COICOP (Classification of individual consumption by purpose) with few exceptions.

**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:** Yes

**Weights for different population groups or regions:** No.

**D: Sample design**

**Sampling methods:**

*Localities:* Judgmental sampling

*Outlets:* Judgmental sampling

*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:* Every five years

*Outlets:* Every five years

*Products:* Every five years

**If sample updates are irregular indicate when last updates were introduced:** 2004/05
Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Localities are selected by purposive or judgemental sampling. Outlets are selected by enumerators appointed in a data collection center (market place). The basket is first selected during CPI re-basing by 0.05% and above cut off point and sent to branch offices to check the availability of the proposed items in their locality.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Tight specifications are used as much as possible.

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Localities: 11 regions, Outlets: 119, Price observations: 430 items per outlet

**Frequency with which prices are collected:** All prices are collected monthly except house rent which is collected quarterly

**Reference period for data collection:** From the 1st to the 15th day of European calendar month (days 1-15).

**Methods of Price Collection**

- Personal data collection for all items.

**Treatment of:**

**Discounts and sales prices:** They are not taken.

**Black market prices:** Not collected.

**Second hand purchases:** Not included.

**Missing or faulty prices:** Missing prices are handled by carrying forward the previous price observation, and extrapolation methods.

Period for allowing imputed missing prices: Prices are carried forward for 3 months and extrapolated after that.

**Disappearance of a given type or quality from the market:** No replacements are done except carrying forward and extrapolation.

**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, when a new HBS is conducted.

**Treatment of seasonal items and seasonality**
Items that have a seasonal character and their treatment: Fruits and vegetables are highly seasonal in price fluctuations but items are available throughout the year.

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: There are no extreme weather conditions and as such there are no marked distinctions in the seasons. Weights are fixed.

Method to impute the price of seasonal items: The method used to impute price development of in out-of-season periods is carrying forward the last observed price and impute the price by using price development of in-season products.

Treatment of housing

Treatment of owner-occupied housing: Owner occupied housing is only included in weights. Prices are not collected.

Types of dwellings covered by the rent data: Private house rents are collected quarterly. 1-3 roomed house rents are collected. These are mostly for low and middle income groups.

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: Standard Laspeyres formula which uses base year values as the weight. Only monthly prices are collected to compute the CPI. The base year expenditure values are determined every five years.

Formula of aggregating regional/population group indices into national index: For each region CPI is compiled using Laspeyres formula. Then the regional CPI is multiplied with the share that region has in total expenditures and sum up across regions to arrive at the national CPI. There is (are) no national basket(s) but regional.

Monthly and annual average prices: Geometric means are used.

Seasonally adjusted indices: No seasonal adjustment.

Software used for calculating the CPI: Microsoft Excel.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Every month regional supervisors monitor data collection at the spot. Head office subject matter experts visit the data collection centers quarterly at random.
Control procedures used to ensure the quality of data processed: Data is manually cleaned and entered to the CPI worksheets by subject matter experts and checked by senior staff.

H: Documentation and dissemination

**Timeliness of dissemination of the CPI data:** Price data are collected from 1st – 15th day of the European calendar month and published and disseminated between the 5th – 8th days of the next month. That means the CPI is disseminated within 20 – 23 days after completion of the survey.

Level of detailed CPI published

**Paper publication:** All items CPI, Division-level (12 Divisions)

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

Separate indices published for specific population groups: No

Documentation

**Publications and websites where indices can be found:** “Consumer Price Indices” available at [www.csa.gov.et](http://www.csa.gov.et) and hard copies can be obtained from CSA head office and also available in CSA library in hard copy format.

**Publications and websites where methodological information can be found:** Methodological information is not publicly published but available internally. It can be obtained upon request.

I: Other Information

Reported by the country in 2012.

Fiji

A: Identification

**Title of the CPI:** National Consumer Price Index

**Organisation responsible:** Fiji Bureau of Statistics

**Periodicity:** Monthly

**Index reference period:** 2005 = 100

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: Urban areas

Price collection: Urban areas

Population coverage: Resident households of nationals.

Consumption expenditure includes:

- Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration)

Consumption expenditure excludes:

- Income in-kind receipts of services;
- In-kind goods received as gifts;
- Mortgage repayments;
- Financial services (including fees for financial advice, brokerage fees);
- Life insurance premiums;
- Gambling expenditure, gross of winnings;
- 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 CPI is an index that measures changes in the prices of a fixed representative basket of goods and services that the households purchase during a specified time.

Classification: CIOCOP (Classification of individual consumption by purpose) classification with 9 groups.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

Price updating of weight reference period to the index reference period: Weights are price up dated for example the weights used in the CPI 2005 = 100 incorporates price adjusted expenditure data from the 2002-2003 Household Income and Expenditure Survey.
(HIES) of urban households of all races in Fiji that was conducted from March 2002 to February 2003.

**D: Sample design**

**Sampling methods:**

*Outlets*: Judgmental sampling

*Products*: Judgmental sampling

**Frequency of sample updates:**

*Outlets*: Continuous (on a rotating basis)

*Products*: Continuous (on a rotating basis)

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Price observations: 5,212

**Frequency with which prices are collected:** Prices for majority of the items are collected monthly; Payments to house-girls, hotel accommodation and transport are priced once a year; Rent data is collected quarterly.

**Reference period for data collection:** Reference period for majority of the items is the middle of each month. For house girl payments, accommodation etc., the reference period is mid-January, Rent reference period is mid-March, June, September and December.

**Methods of Price Collection**

- Personal data collection

**Treatment of:**

**Discounts and sales prices:** Sales prices, discount prices and 'specials' are reflected in the CPI so long as the items concerned are of normal quality (that is, not damaged or shop soiled), and are offered for sale in reasonable quantities.

**Missing or faulty prices:** For temporarily missing prices, imputation on the basis of the movement in prices of similar products sold by the same outlet or other outlets is used. In some cases, it may be appropriate to repeat the last reported price. For seasonal products, missing prices are imputed using the price movements of products that are in-season.

**Disappearance of a given type or quality from the market:** If a product becomes permanently unavailable, replacements are selected on a timely basis.
Quality differences: Two methods are used for quality adjustments: (i) the explicit or direct method where a dollar value is placed on the difference in quality and then directly adjust the price of the new product by this estimated difference in value. (ii) The implicit or indirect method. This method can be used when prices for the old and new product are available in the same period is overlap pricing. The price for the old product is used to calculate the index for the overlap period and the price for the new product used for the next period. The assumption is that the price difference between the new and old product is equal to the value of the quality difference.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Agricultural products. The fixed weight approach is used for seasonally adjusting the CPI. In the fixed weight approach, all the seasonal products are assigned the same weight every month and imputed prices are used in the out of season months.

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.

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

Treatment of housing

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: The Laspeyres formula is used to aggregate elementary indices into higher-level indices. This is expressed as

\[
\text{In} = \frac{\sum_{i=1}^{x} \frac{P_n}{P_0} \times P_0 Q_0}{\sum_{i} P_0 Q_0} \times 100
\]

where

\(\text{In} = \) Index for current period
\(1–x = \) Sub-group (commodity)
\(\Sigma = \) the sum of
\(P_n = \) Price per unit in current period
\(P_0 = \) Price per unit in base period
\(P_0 Q_0 = \) Weight in the base period.

Seasonally adjusted indices: Seasonally adjusted CPI is computed.

G: Editing and validation procedures
Control procedures used to ensure the quality of data collected: After prices are collected, they are carefully examined for accuracy and validity before they enter into the CPI calculations. This involves careful checks of price levels in the current period and of price changes since the previous pricing period; field staff make additional on-the-spot checks where necessary.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** The CPI is released on the last working day of each month.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Publication**

**Publications and websites where indices can be found:** Monthly press release, Internet website: [www.statsfiji.gov.fj](http://www.statsfiji.gov.fj)


**I: Other Information**

Completed by ILO in 2013.

**Finland**

**A: Identification**

**Title of the CPI:** Consumer Price Index

**Organisation responsible:** Statistics Finland (SF)

**Periodicity:** Monthly

**Index reference period:** 2010 = 100

**Weights reference period:** 2010 Calendar 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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

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

Consumption expenditure includes:

- Mortgage repayments;
- Mortgage interest;
- Housing maintenance, minor repairs;
- Major repairs, conversions and extensions to owner occupied housing;
- Financial services (including fees for financial advice, brokerage fees);
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- Social transfers in-kind of goods and services from government and No-profit institutions serving households

Consumption expenditure excludes:

- Foods produced for own final consumption;
- Other goods produced for own final consumption;
- Services produced for own final consumption

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index is the most common measure of inflation. It describes development in the prices of products and services purchased by households in Finland. Inflation for a given month is usually expressed as a year-on-year change, i.e. as the change in price from the corresponding month of the previous year.

Classification: COICOP (Classification of Individual Consumption According to Purpose)

Weights include value of consumption from own production: No

Sources of weights: National accounts.

Frequency of weight updates: Every 3-5 years
Price updating of weight reference period to the index reference period: The method used to update weights from the weight reference period to the index reference period is based on price updates with item level yearly change.

Weights for different population groups or regions: The 5 Major region indices are computed. The weights of the indices by major region are formed direct from the information in the Household Budget Survey by the regional division.

D: Sample design

Sampling methods:

*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), cluster sampling by brand and price group for new cars

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Outlet selection: The outlets from which the data for the consumer price index are collected are selected to represent the structure of the retail trade as closely as possible with regard to the size of central retail corporations and outlets. The aim is to take regional differences into account as well. For the time being, statistical sampling can only be used to select stores for daily consumer goods because a sufficiently reliable and accurate outlet-specific frame is not available.

Item selection: The main methods in the selection are: probability proportional to size (PPS) sampling, stratified by products and focusing on high sales values (e.g. magazines and prescription drugs), selection of the most sold products in terms of sales value (e.g. daily consumer goods), purposive sampling based on expert views in the absence of comprehensive sales data (e.g. optical industry products and restaurant). Other methods are for example cluster sampling by brand and price group for new cars.

Sample sizes: Approximately 51,000 price observations are collected from outlets per month. For food items the target sample varies between 100 – 200 prices per item; for durables the target is 170 prices. Separate rental survey with a monthly sample of 1,600 dwellings and separate survey on house prices with quarterly sample size of 20,000 transactions. In addition, some administrative data with full coverage of transactions (e.g. health services) is used.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Specification supplied to collectors includes for example, quality details, size range, material, acceptable brands, etc.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 112, Outlets: 2,700, Price observations: 51,000
**Frequency with which prices are collected:** The prices for the Consumer Price Index are collected monthly.

**Reference period for data collection:** Prices are collected monthly between the 10th and 20th of the month.

**Methods of Price Collection**

- Personal data collection
- Telephone interviews
- Internet
- Fax

**Treatment of:**

**Discounts and sales prices:** Discounts are not taken into account

**Missing or faulty prices:** If prices are temporarily missing, they are deleted from the computation; if permanently unavailable, then a replacement item is selected.

Period for allowing imputed missing prices: A price can be missing for two months at most, after which the collected item has to be replaced with a new one.

**Disappearance of a given type or quality from the market:** Following the instructions, a close substitute should be chosen.

**Quality differences:** Quality adjustment is mostly done by means of detailed classification and replacement rule applied within a given class of items. Hedonic regression methods for quality adjustment are used for housing.

**Appearance of new items:** The prices for the new items are collected from the new and old outlets and included in the computation of the Consumer Price Index.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** Seasonal commodities include summer and winter clothes and certain commodities related to outdoor recreation and sports. The prices for winter clothes are normally collected from October to February, and the prices for summer clothes from March to September. The price development of clothing is characterized by a change of model collection at the beginning of the season and sharp drop in the prices at the beginning of the sales season. The weights are the same for each month. The last available price is carried forward for months with no collection.

**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 using price development of in-season products.

Treatment of housing

Treatment of owner-occupied housing: Owner occupied housing is measured based on four components: i) new flats and detached houses (currently approximated with house price index of old flats), ii) maintenance costs, iii) mortgage rates, iv) real estate brokers fee and insurance costs of detached houses.

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: The index is of a fixed quantity and quality (base weight) Laspeyres type.

Formula of aggregating regional/population group indices into national index: The Consumer Price Index for the whole country is compiled from indices by major region.

Seasonally adjusted indices: Data are not seasonally adjusted.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: The price collectors have the previous month’s data at the time of collection and can detect outliers in relative price changes. Data checks are undertaken at ‘desk ‘level by SF staff after the data arrives to SF.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The indices are published on the 14th day of the month following the statistical reference month. If the day concerned falls on a weekend or a public holiday, the statistics are published on the weekday nearest to it.

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)

Documentation

Publications and websites where indices can be found: New release: “Consumer Price Index” (press release in English); Monthly: “Consumer Price Index” is available in Finnish, on a subscription basis, Consumer Price Index monthly bulletin is available in PDF- format (Statistics Finland); Internet website: http://tilastokeskus.fi/tup/tilastotietokannat/index_en.html
Publications and websites where methodological information can be found:

I: Other Information

Completed by ILO in 2013.

France

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Institut National de la Statistique et des Etudes Economiques (INSEE)

Periodicity: Monthly

Index reference period: 1998 = 100

Weights reference period:

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, 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 temporary visitors.

Consumption expenditure excludes:

- Life insurance premiums;
- Gambling expenditure, gross of winnings

C: Concepts, definitions, classifications and weights
Definition of the CPI and its objectives: The consumer price index (CPI) is the instrument used to measure inflation. It estimates the average change in prices of household consumer goods between two given periods. It is a synthetic measurement of “pure” trends in product prices, i.e., at a constant level of quality.

Classification: COICOP (Classification of individual consumption by purpose) with 161 groups comprising 12 functions and 37 sub functions.

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys and national accounts.

Frequency of weight updates: Annual

D: Sample design

Sampling methods:

Localities: Stratified sampling with simple random sampling in each stratum

Outlets: Stratified sampling with simple random sampling in each stratum

Products: Stratified sampling with simple random sampling in each stratum

Frequency of sample updates:

Outlets: Annual

Products: Annual

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Geographically criterion (locality): the surveys are conducted in 106 cities of more than 2,000 inhabitants dispersed throughout the country and of all sizes and in four overseas departments.

Item selection: a sample of just over 1,000 families of products and services, called “variety” is defined to reflect the heterogeneity of the products within 161 groups of products. The “variety” is the base level of monitoring products and services and index calculation. The list of items is confidential and only some average prices of a sample products and services are published at this level.

Outlet selection: a sample of 27,000 outlets, stratified by type of sales was formed to represent the diversity of products and services brands, trade names and consumer’s purchasing mechanisms and to reflect price changes differentiated by type of sales.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 106, Outlets: 27,000, Price observations: 200,000
Frequency with which prices are collected: Monthly price observations are taken over the four weeks, for the month in question. Fresh products’ prices are observed every two weeks.

Reference period for data collection: The reference period for data collection is a full month.

Methods of Price Collection

- Personal data collection
- Official tariffs

Treatment of:

Discounts and sales prices: Discounts and sales available to all consumers are taken into account in all CPI prices

Missing or faulty prices: Prices for products that could not be observed during the month are imputed on the basis of trends in similar products, and primarily in the same agglomeration, and at the national level if insufficient observations are available. Prices for missing seasonal products are held constant at the level of the latest “normal” (not discounted) price observed.

Disappearance of a given type or quality from the market: Products that become permanently unavailable are replaced in the sample with other products and different adjustment techniques are used to reflect quality differences.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Specific treatments are applied for fresh products. For other seasonal varieties, and to determine pure price trends at constant quality levels, a product that is no longer available is replaced with another product during the year.

Treatment of housing

Treatment of owner-occupied housing: The index does not reflect national housing rental for owners.

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: The elementary indices are aggregated using a Laspeyres index.

Formula of aggregating regional/population group indices into national index: The national CPI is calculated by combining the urban and rural indices using as weights the
country-wide urban and rural household expenditure multiplied by the total number of urban/rural households as available from population census data.

**Seasonally adjusted indices:** INSEE publishes the following seasonally adjusted indices: The CPI for all of France, for all households, not including tobacco; The CPI for all of France, for urban households headed by a laborer or white collar worker, including and not including tobacco; The seasonally adjusted consumer price index (CVS); The “index not including public tariffs and volatile price products adjusted to reflect tax measures” and seasonally adjusted. This index measures cyclical or underlying inflation. It does not reflect public tariffs, volatile price products (petroleum products, wine, meat, and fresh dairy products) and represents just under 60 percent of the overall index. It is also adjusted to reflect tax measures to neutralize the effects on the price index of changes in indirect taxation or government measures directly affecting consumer prices. It is intended only for economic analysis.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data processed:** The data quality control process is based on a number of different activities: examination of product quality indicators produced by the monthly computer processing sequence used to generate the CPI, which involve the mechanism for collecting and verifying information, and are available at different levels of aggregation; active participation in the quality control system implemented by Eurostat within the European Union. In this connection, the French harmonized consumer price index (IPCH) was subject to a conformity inspection which involved a visit by Eurostat experts to INSEE in June 2001.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** CPI data is disseminated approximately 13 days after the end of the reference period (for January approximately 22 days after the end of the reference period)

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**

**Publications and websites where indices can be found:** New release: "Informations rapides" (in French) – INSEE; Weekly: "Tableau de bord hebdomadaire" (in French) – INSEE; Monthly: Bulletin mensuel de statistique (in French) – INSEE; Internet website: http://www.insee.fr

**Publications and websites where methodological information can be found:** The methodological note can be found at

I: Other Information

Completed by ILO in 2013.

Georgia

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: National Statistics Office of Georgia

Periodicity: Monthly

Index reference period: December 2012 = 100

Weights reference period: 2011

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

B: CPI Coverage

Geographical Coverage

Weights: National-wide

Price collection: Urban areas

Population coverage: Resident households of nationals.

Population groups excluded: The territories of Abkhazian Autonomous Republic and Tskhinvali Region (former South Ossetian Autonomous Region), a part of Georgian territory not controlled by the central authorities.

Consumption expenditure excludes:

- In-kind goods received as gifts;
- In-kind services received as gifts;
- Gambling expenditure, gross of winnings

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: Consumer Price Index is an index which measures an average price change of goods and services included in the fixed consumer basket
compared to base period. It measures average changes in prices of goods and services, purchased by typical consumer.

**Classification:** COICOP (Classification of individual consumption by purpose) 12 commodity groups.

**Sources of weights:** Household expenditure surveys and national accounts.

**Frequency of weight updates:** Annual

**Price updating of weight reference period to the index reference period:** Weights of 2011 are not price updated.

**D: Sample design**

**Frequency of sample updates:**

**Products:** Annual

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:** Selection of trade points: Sampling is based on popularity of the trade point (volume of sale), stability and complexity of assortment of goods, permanent work of the trade point, willingness to cooperate with registrars, location and type of shop.

Sample size: Price collectors together with their supervisors and representatives of trade points select products, which have important share on market, within specification of goods.

**Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office:** Price statistics division gives detailed specifications to collectors, including label, size, fabric, etc., to make sure that price change is not due to changing an item or its characteristics.

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Outlets: 1,300

**Frequency with which prices are collected:** Prices are collected monthly.

**Reference period for data collection:** Reference period for data collection is between the 10th and 20th days of each month.

**Methods of Price Collection**

- Personal data collection for most items in retailed shops, markets and service points.

- Telephone interviews for items with communal payments and regulated prices.

**Treatment of:**
Discounts and sales prices: Discounts and sales prices are reflected. Discounts prices are recorded as temporary decrease of prices. Sales prices are fixed on agricultural markets and fair markets.

Missing or faulty prices: If prices do not exist temporarily (not more than 3 months for non-seasonal items), price imputation is used;

Period for allowing imputed missing prices: Prices are imputed not more than 3 months. If the price is missing in the 3rd, the item will be substituted during the reference month.

Disappearance of a given type or quality from the market: Missing item is substituted by the product with predetermined characteristics.

Quality differences: If a comparable item cannot be found, overlap method and overall mean imputation are used for quality adjustment.

Appearance of new items: The list of specifications is updated and new products are substituted.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Prices of fruits and vegetables are collected in months defined in advance or according to seasons; for calculation index on the seasonal products, method of price imputation is used; weights of seasonal fruits and vegetable remain permanent during the year.

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.

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

Treatment of housing

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: Simple indices are aggregated to some levels, by means of Laspeyres-type formula and using fixed weights

Formula of aggregating regional/population group indices into national index: National index for the item is an average weighted index of elementary indices by overall expenditures within the region.

G: Editing and validation procedures
Control procedures used to ensure the quality of data collected: Price collectors have to explain significant variation of prices which also have to be checked and validated by the head office; change of prices is controlled by means of software; each index is analyzed to be sure that change of prices reflects real picture of consumer market.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The official release date of the CPI is the 3rd day of the next month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation


Publications and websites where methodological information can be found: Methodology in Georgian regarding CPI calculations, data collection and processing techniques are available at http://geostat.ge/index.php?action=page&p_id=328&lang=geo

I: Other Information

Completed by ILO in 2013.

Germany

A: Identification

Title of the CPI: National Consumer Price Index

Organisation responsible: Federal Statistical Office

Periodicity: Monthly

Index reference period: 2010 = 100

Weights reference period: 2010

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, 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.

**C: Concepts, definitions, classifications and weights**

**Definition of the CPI and its objectives**: CPI is the measure of average change in the prices for all goods and services purchased by households for consumption purposes.

**Classification**: COICOP (Classification of individual consumption by purpose)

**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, not needed.

**D: Sample design**

**Frequency of sample updates**:

*Outlets*: Continuous (on a rotating basis)

*Products*: Continuous (on a rotating basis)

**E: Data Collection**

**Approximate number of localities, outlets and price observations**: Localities: 188, Price observations: 300,000

**Frequency with which prices are collected**: Prices are collected monthly.

**Reference period for data collection**: The reference period of data collection is the 1st and 20th calendar day of each month; the main part of the prices is collected around the 15th of each month.

**Methods of Price Collection**

- Personal data collection
Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Seasonal items include clothing and footwear, Fruits and vegetables, fish, etc. Seasonal products are recorded if, during a typical seasonal period, they have a consumption significance of at least 2-tenths percent of total consumption expenditures. Specific rules for updating the prices outside of the selling phase were developed and implemented for all of the seasonal goods that is to say; the items that are not currently offered are updated using prices of similar items.

Treatment of housing

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: Basic indices are aggregated to higher-levels using the Laspeyres formula.

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: Data are available within three weeks following the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation

Publications and websites where indices can be found: New release- available in German and English, Wirtschaft und Statistik” (Economics and Statistics) available in German only, The “Statistisches Jahrbuch” (Statistical Yearbook) available in German; Internet website: Through the database system GENESIS-Online (www.destatis.de/Genesis-Online , 61 > 611 > 61111 > Tabellen), detailed results of consumer price statistics can directly be loaded in various file formats (.xls, .html and .csv). “Subject-matter series 17, subseries 7” can be obtained only in German as a pdf file free of charge at https://www.destatis.de/DE/Publikationen/Thematisch/Preise/ThemaPreise.html
Publications and websites where methodological information can be found: The methods of consumer price statistics have been published in diverse articles in "Wirtschaft und Statistik" (Economics and Statistics).

I: Other Information
Completed by ILO in 2013.

Ghana

A: Identification

Title of the CPI: Consumer Price Index
Organisation responsible: Ghana Statistical Service
Periodicity: Monthly
Index reference period: 2002 = 100
Weights reference period: September 2005 to September 2006, Ghana Living Standards Survey (GLSS 5)
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 and computation of purchasing power of households.

B: CPI Coverage

Geographical Coverage
Weights: Nation-wide
Price collection: Nation-wide
Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The CPI measures the change over time in the general price level of goods and services that households acquire for the purpose of consumption.
Classification: COICOP
(Classification of individual consumption by purpose)
**Sources of weights:** Household expenditure surveys.

**Frequency of weight updates:** Every 3-5 years

**D: Sample design**

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Localities: 40

**Frequency with which prices are collected:** Price collection is done monthly.

**Methods of Price Collection**

- Personal data collection

**Treatment of seasonal items and seasonality**

**Treatment of housing**

**F: Computation**

**Formula to aggregate elementary indices to higher-level indices:** Aggregation of elementary indices into higher-level indices is by Laspeyres index formula.

**G: Editing and validation procedures**

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** The CPI is disseminated 15 days after the end of the reference month.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**

**Publications and websites where indices can be found:** Monthly: CPI Newsletter (English) Ghana Statistical Service; Quarterly: PBCI newsflash (English) Ghana Statistical Service; Internet website: Ghana statistical service: [http://www.statsghana.gov.gh](http://www.statsghana.gov.gh)

**I: Other Information**

Completed by ILO in 2013.
Greece

A: Identification

Title of the CPI: National Consumer Price Index

Organisation responsible: Hellenic Statistical Authority (ELSTAT)

Periodicity: Monthly

Index reference period: 2009 = 100


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.

Population groups excluded: Institutional households.

Consumption expenditure excludes:

• Purchase of owner-occupied housing

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: Consumer price index is the measure of change in the general level of prices for a given quantitative and qualitative composition of goods and services purchased by the contemporary household.

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: Weights are adjusted according to the price changes of the year 2009.

Weights for different population groups or regions: Weights for price collection cities are calculated. The population weights of the price collection cities are derived from the data of the general population census of the year 2001. These weights are calculated as percentage (%) contribution of the population of each price collection city and the greater area that the city represents to the total population of the country.

D: Sample design

Sampling methods:

Outlets: Judgmental sampling

Products: Judgmental sampling

If sample updates are irregular indicate when last updates were introduced: Samples are updated when revising the CPI.

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Item selection: The goods and services included in the CPI basket are selected on the basis of both the HBS data and the results of a specific market survey adjusted to the prices changes. For each sub-group the necessary number of items was selected to ensure the representativeness of the individual index of sub-group.

Outlet selection: Prices are collected from retail sales outlets, enterprises providing services, street markets etc. Outlets which are considered representative of the branches of shops and where the households make their purchases are chosen in the 24 selected price collection cities.

Sample sizes: Prices are collected from 24 cities selected from 13 Regions of Greece, which correspond to the NUTS 2 level. The total number of outlets for all items included in the Index amounts to 5,000. The number of species of goods and services amounts to 800, which are broken down to a greater number of variations.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: All items for which prices are collected are defined by specific characteristics that is particular characteristics which determine the quality, the get up, and the identity in general.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 24 cities, Outlets: 5,000, Price observations: 56,100

Frequency with which prices are collected: The frequency of price collection varies depending on the nature of the products. Prices of fresh products (fruit and vegetables and
fish) and energy products (heating oil, petrol) are collected once a week. For the other products, prices are collected once a month.

**Reference period for data collection:** Weekly prices refer to Tuesday. Monthly prices are collected in a cyclical manner so as to refer to the whole month.

**Methods of Price Collection**

- Personal data collection

**Treatment of:**

**Discounts and sales prices:** Reduced prices of general offers and general discounts are collected. Sales prices are also included. Reduced prices, due to special offers or special discounts, which are applied for some categories of consumers (e.g. members of cooperatives) are not taken into account in the compilation of CPI.

**Missing or faulty prices:** The treatment of missing prices depends on the category of items, for which prices are collected. The treatment of missing prices for the items (which are not seasonal) depends on the duration of absence of the item in the outlet. If the time interval of its absence exceeds 2 months, then the item is replaced.

Period for allowing imputed missing prices: 2 months

**Disappearance of a given type or quality from the market:** When a specified item (variety of species) is no longer available in the market or has ceased to be important, as regards the consumption, because of the appearance of new varieties, then it is substituted by the item which has taken its place in the market. If the substitute item is comparable to the item it replaces, then it is tried to estimate whether the deviation of prices is due to differences in quality, weight, package, etc. and adjust the price accordingly, so that the adjusted price corresponds to the price of the new item, with quality level equivalent to that of the old item. However, if the substitute item is not comparable to the one it replaces, then the prices of the two items are linked, and a theoretical base price is calculated for the substitute item.

**Quality differences:** NSSG (National Statistical Service of Greece) uses implicit quality adjustment techniques (such as overlap, etc.), each time taking into account different parameters in the quality adjustment decision. Explicit methods are only used in the form of quantity judgment, expert judgment, etc. in certain cases. The demand for explicit quality adjustment techniques, such as option cost, hedonics, etc. should be explored in the long run in the scope of NSSG.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** For seasonality of fresh fruits and fresh vegetables, the method of monthly changing weights of the various species of these goods, by keeping the weights of sub-groups "Fresh fruit" and "Fresh vegetables" constant throughout the year, is applied. For seasonality of clothing and footwear, a new method is applied, starting from January 2011 that is consistent with the Regulation (EC) No 330/2009 (class confined seasonal weights method). According to this method, when some of these products are out of season they are excluded from the basket and their weights are zero.
Prices for seasonal items are collected as following: i) winter items: from October to April; ii) summer items: from May to September.

**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:** Class confined seasonal weights method. According to this method, when some of these products are out of season they are excluded from the basket and their weights are zero.

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

**Treatment of housing**

**Treatment of owner-occupied housing:** The owner occupied housing is not included.

**Types of dwellings covered by the rent data:** The rent prices are collected directly from households.

**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:** Aggregation of elementary indices into higher-level indices is by the fixed base Laspeyres type index given by

\[ I_t = \sum_{i=1}^{k} R_i^t W_i, \quad i = 1, 2, \ldots, k. \]

where

- \( I_t \) = The overall index of the current period (month) \( t \).
- \( R_i^t \) = The individual index (sub-index) of the species \( i \) (or group of similar species), for which the weight for the month exists.
- \( W_i = \frac{p_i^0 q_i^0}{\sum_{j=1}^{k} p_j^0 q_j^0} \) = The weight (based on the HBS results) of the species \( i \), where \( p_i^0 \) and \( q_i^0 \) are the price and quantity of the species \( i \), in the base period 0 respectively.

**Formula of aggregating regional/population group indices into national index:**
Population weights are calculated as percentages of the population of each price collection city in the total population of Greece. In addition to the population of each city the population of the wider geographic area that the city represents is also taken into account in the calculation of population weights. In general, the population weights are used for the weighting of the individual indices (sub-indices) of the items of each price collection city, in order to calculate these sub-indices for the whole country.
Seasonally adjusted indices: Data are not seasonally adjusted.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: The collected prices are checked as regards their correctness, in both the time of their collection and the time of their processing. Comparison between the current price quoted and the previous month respectively. Communication with respondents follows in case of outliers.

Control procedures used to ensure the quality of data processed: There are checks (automatic and manual) for the assessment of discrepancies in order to eliminate sources of errors.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI data is released in the first 10 days from the end of the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation


Publications and websites where methodological information can be found: Methodological notes can be found in the document "Information note, The Revised Consumer Price Index (Base year 2009=100.0)", available on http://www.statistics.gr/portal/page/portal/ESYE/PAGE-themes?p_param=A0515&r_param=DKT87&y_param=MT&mytabs=0

I: Other Information

Completed by ILO in 2013.

Grenada

A: Identification

Title of the CPI: Consumer Price Index
Organisation responsible: Eastern Caribbean Central Bank (ECCB)

Periodicity: Monthly

Index reference period: 2010 = 100

Weights reference period:

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

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index (CPI) is an index number of the change in the prices through time of a constant basket of goods and services.

Classification: COICOP (Classification of individual consumption by purpose)

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

D: Sample design

E: Data Collection

Frequency with which prices are collected: Prices are collected monthly.

Reference period for data collection: Prices are collected from all areas of the island during the third week of every month.

Methods of Price Collection

- Personal data collection

Treatment of seasonal items and seasonality

Treatment of housing
F: Computation

**Formula to aggregate elementary indices to higher-level indices:** The aggregation formula is the fixed base Laspeyres formula.

G: Editing and validation procedures

H: Documentation and dissemination

**Timeliness of dissemination of the CPI data:** The data are disseminated to the public on the 15th day of the following month. Monthly releases are published in the "Government Gazette" 2 weeks afterwards.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

Documentation


**Publications and websites where methodological information can be found:** The CPI methodology and sources are described in the annual Statistics Department publication "The Consumer Price Index".

I: Other Information

Completed by ILO in 2013.

Guatemala

A: Identification

**Title of the CPI:** National Consumer Price Index.

**Organisation responsible:** Instituto Nacional de Estadistica

**Periodicity:** Monthly

**Index reference period:** December 2010 = 100

**Weights reference period:**
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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Urban areas

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: CPI is a statistical indicator that measures the average change in prices of goods and services in the basket structure, representative of habitual consumption of households in a country or a particular geographical area, with a reference period of time.

Classification: COICOP classification (Classification of individual consumption by purpose)

Sources of weights: Household income and expenditure surveys (ENIGFAM)

Frequency of weight updates: Above 5 years

D: Sample design

Sampling methods:

Outlets: Judgmental sampling

Products: Judgmental sampling

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Item selection: The goods and services included in the household shopping basket are selected based on their relative weight in the overall expenditure and frequency of demand.

Outlet selection: The ENIGFAM provides a list of commercial establishments most frequently visited by consumers and it takes into account the fact that the establishment would have to stock a sufficient number of products and varieties to be able to be included as a source of information. The selection of sources was by criterion and not probabilistic.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: There are detailed specifications for each product and its varieties.
E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 7,353, Price observations: 48,989

Methods of Price Collection

- Personal data collection

Treatment of:

Discounts and sales prices: Discounts are not taken into account, except in cases of total liquidation.

Appearance of new items: When a new product crops up, it is included in the group with an appropriate weighting without changing the weighting to which it belongs.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Seasonal products include fruits and vegetables, once the season is over, prices of these items stay at the last price provided until the product reappears on the market.

Treatment of housing

Types of dwellings covered by the rent data: The housing/rental index is obtained by visiting rental units each quarter, about 78.8 units per month.

F: Computation

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

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI data is disseminated 1 week 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

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

Documentation

Publications and websites where methodological information can be found: There is a methodology that describes the calculation process of the CPI. It is available at http://www.ine.gob.gt/np/IPC/index.htm

I: Other Information

Completed by ILO in 2013.

Guernsey, Channel Islands

A: Identification

Title of the CPI: Retail Price Index

Organisation responsible: States of Guernsey, Policy Council, Policy and Research Unit

Periodicity: Quarterly

Price reference period: 1965

Index reference period: 2008

Weights reference period: 2008 (update due 2013)

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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Covers Island of Guernsey but not entire Bailiwick (Alderney, Herm, Sark and Jethou)

Price collection: Covers Island of Guernsey but not entire Bailiwick (Alderney, Herm, Sark and Jethou)

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

Consumption expenditure includes:
• Food consumed away from home;
• Income in-kind receipts of goods;
• Income in-kind receipts of services;
• Mortgage interest;
• Housing maintenance, minor repairs;
• Second hand goods purchased (second hand motor cars only);
• Luxury goods;
• Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
• Life insurance premiums;
• 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;
• In-kind goods received as gifts;
• In-kind services received as gifts;
• Purchase of owner-occupied housing;
• Mortgage repayments;
• Major repairs, conversions and extensions to owner occupied housing;
• Purchase of gifts of goods and services given to others outside the household;
• Financial services (including fees for financial advice, brokerage fees);
• Interest payments (excluding mortgage interest payments);
• 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: RPI is a weighted index reflecting the average change in price levels experienced by households with the objective of monitoring the levels of inflationary pressure on the economy and the real value of the currency.

Definition of consumption expenditures: The acquisition (including goods and services acquired through payment or as payment in kind) of goods and services for the consumption of the household or any of its member excluding payment for financial services and capital investments.

Classification: COICOP (Classification of individual consumption by purpose) at the division level.

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: No

D: Sample design

Sampling methods:

Localities: Sampling with probability proportional to size (PPS)

Outlets: Sampling with probability proportional to size (PPS)

Products: Sampling with probability proportional to size (PPS)

Frequency of sample updates:

Localities: Every five years

Outlets: Every five years

Products: Every five years

If sample updates are irregular indicate when last updates were introduced: Full update is conducted in conjunction with review of weights, but continuous updates are included with changes in the local outlet (limited number of local outlets mean samples are collected from almost all major outlets).

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Where no natural monopoly exists, sample sizes are determined by weight and degree of price variance with the group. Coverage of outlets is determined using HES data.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Where specifications are unclear, item selected should be the most basic available variety of the item of the most commonly available size/colour etc.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: Island wide, Outlets: 300, Price observations: 2,700

Frequency with which prices are collected: All quarterly

Reference period for data collection: Shop/website based items are priced in the last two weeks of the quarter. Motor fuels, utilities, rents, airline flights and other volatile items are
priced in the last working day of the quarter. Mortgage interests are calculated from historic quarterly property price time series and quarterly average AER interest.

**Methods of Price Collection**

- Personal data collection for groceries and supermarket items.
- Mailed questionnaires for rents, insurance quotes etc.
- Telephone interviews for tradesman’s rates, car sales and high value items.
- Internet for web based companies and airline flights.
- Official tariffs for utilities, government fees and charges

**Treatment of:**

**Discounts and sales prices:** Noted but included.

**Black market prices:** Not collected.

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

**Missing or faulty prices:** Omission.

Period for allowing imputed missing prices: Items are replaced after 2 – 4 consecutive quarters depending on weight and general availability of similar items unless the item is known to be discontinued or the supplier is no longer in operation in which case items are replaced immediately.

**Disappearance of a given type or quality from the market:** Once an item is confirmed permanently unavailable, it is replaced either with the nearest available alternative from the same outlet or the same/similar item from an alternative outlet.

**Quality differences:** Item noted as a change of item. Previous price carried forward at the first occurrence and valid like for like comparison made in subsequent quarters.

**Appearance of new items:** Item omitted from calculation until two consecutive data points are available to make a like for like comparison

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** Fresh fruits, Fresh vegetables, meat, alcohol brought for home consumption, clothes. No seasonal adjustments are made.

**Seasonal food items:** Seasonal food items are included in the RPI 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 RPI 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: The method used to impute price development in out-of-season periods is carrying forward the last observed price.

Treatment of housing

Treatment of owner-occupied housing: Imputed rents for owner-occupied housing are not included in the RPI. Mortgage interest payments are measured using historic house prices and a local AER.

Types of dwellings covered by the rent data: Rents compared on a like for like basis are collected from private households by letter and from estate agents. Rent data is collected quarterly.

F: Computation

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

Formula to aggregate elementary indices to higher-level indices:

where:

$I_g$ = Group index
$I_e$ = Elementary Indices
$W_e$ = Weight elementary indices

Seasonally adjusted indices: Rarely using X12

Software used for calculating the CPI: Microsoft Excel, SPSS statistics

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Data quality is reviewed by staff and spot checks are made where appropriate.

Control procedures used to ensure the quality of data processed: Final price data set is processed by a second analyst to ensure that identical results are obtained.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: RPI data is released 3 weeks after the end of the reference quarter
Level of detailed CPI published

**Paper publication:** All items RPI, Division-level (12 Divisions)

**Online:** All items RPI, Division-level (12 Divisions)

**Restricted Access:** Group-level app. 40 groups

**Separate indices published for specific population groups:** No

**Type of products for which average prices are calculated and disseminated:** Available on request only

**Documentation**

**Publications and websites where indices can be found:** Quarterly Inflation bulletin available at [www.gov.gg/rpi](http://www.gov.gg/rpi)

**Publications and websites where methodological information can be found:** Full methodology not publicly available. A basic guide to the RPI is available at [www.gov.gg/rpi](http://www.gov.gg/rpi)

**I: Other Information**

Reported by the country in 2012.

**Guyana**

**A: Identification**

**Title of the CPI:** George Town Consumer Price Index

**Organisation responsible:** Bureau of Statistics, Trade and Prices Department

**Periodicity:** Quarterly

**Index reference period:** December 2009 = 100

**Weights reference period:** 2005/2006 Household Budget Survey.

**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 and computation of purchasing power of households.

**B: CPI Coverage**

Geographical Coverage
Weights: Main city (can include surrounding areas)

Price collection: Main city (can include surrounding areas)

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The CPI is measured on the basis of the change in monthly cost of a fixed basket of goods and services, based on the relative price movements of each weighted item in the basket. A weighted Laspeyres Index is used as the instrument of computation.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

D: Sample design

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 110

Frequency with which prices are collected: Food item’s prices are collected weekly. Prices in outlets like supermarkets, stores etc. are collected monthly.

Reference period for data collection: Collection in outlets is done on the 15th of each month to the end of the month.

Methods of Price Collection

- Personal data collection for most of the items.

Treatment of:

Discounts and sales prices: Sales prices at the time of collection are recorded and used in computation of the CPI

Missing or faulty prices: When a specific item becomes unavailable in a particular month the price of the item that prevailed in the month prior to its unavailability is held constant until the next month when it can be determined whether the item once again becomes available or continues to be unavailable.

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation
**Formula to aggregate elementary indices to higher-level indices:** The CPI is computed using the Laspeyres index formula.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data processed:** A detailed editing process of the data collected is institutionalized. Whenever a price collected is found to have varied by more than 3 per cent relative to its level of the previous month, a mandatory recheck is made.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** The Georgetown Consumer Price Index is disseminated within 6 weeks of the end of the reference quarter.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**

**Publications and websites where indices can be found:** Internet website: [http://www.statisticsguyana.gov.gy/prices.html](http://www.statisticsguyana.gov.gy/prices.html)

**Publications and websites where methodological information can be found:** Internet website: [http://www.statisticsguyana.gov.gy/prices.html](http://www.statisticsguyana.gov.gy/prices.html)

**I: Other Information**

Completed by ILO in 2013.

**Haiti**

**A: Identification**

**Title of the CPI:** National Consumer Price Index

**Organisation responsible:** Institut Haïtien de Statistique et d'Informatique

**Periodicity:** Monthly

**Index reference period:** August 2004 = 100

**Weights reference period:** 2000 Household Budget Survey.
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 and computation of purchasing power of households.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Consumption expenditure excludes:

- Purchase of owner-occupied housing;
- Second hand goods purchased

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: CPI is a measuring instrument that provides an estimate of the overall evolution of prices of goods and services in consumer spending.

Classification: COICOP (Classification of Individual Consumption by Purpose)

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

D: Sample design

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 36, Price observations: 22,302

Frequency with which prices are collected: Prices used to calculate the CPI are collected on a monthly basis. Food, beverages and tobacco prices are collected on a weekly basis. Rent quotations on housing are collected quarterly.

Methods of Price Collection

- Personal data collection

Treatment of seasonal items and seasonality

Treatment of housing
F: Computation

Formula used for calculation of elementary indices: The arithmetic average of the price ratios (Carli index) (Direct form)

Formula to aggregate elementary indices to higher-level indices: Elementary indexes are aggregated into subgroup and group indexes using Laspeyres formula.

Software used for calculating the CPI: A computer application called CALIPC was developed by the staff of the Office of Price to facilitate the calculation of average retail prices and the CPI.

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI is published monthly 20 days after the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation


Publications and websites where methodological information can be found: Publications on the CPI’s calculation methodology are produced and disseminated for each generation of indices on the www.ihsi.ht.

I: Other Information

Completed by ILO in 2013.

Honduras

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Banco Central de Honduras
Periodicity: Monthly

Index reference period: 1999 = 100

Weights reference period: January 1998 and March 1999 Household Income and Expenditure Survey (ENIGH)

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

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The consumer price index (CPI) is a statistical technique that allows to measure changes in prices of a set of goods and services representative of a family 'shopping basket', between two periods.

Classification: COICOP (Classification of individual consumption by purpose) in 12 groups and 35 subgroups.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

Price updating of weight reference period to the index reference period: The expenditure values reported in the ENIGH January 1998 and March 1999, on which the weights are based were price updated to December 1999 (i.e. were price updated to the index period).

D: Sample design

Sampling methods:

Outlets: Judgmental sampling

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

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Item selection: The goods and services included in the
basket are selected on the basis of their relative weight in total expenditure. All products that exceed 0.02 percent of total expenditure on consumption estimated in the household survey are included in the basket of the index.

Outlet selection: The sample of reporting units in the price survey include 1,295 establishments, selected based on the patterns of purchases from households and the availability of the products included. In addition, to estimate changes in rents paid for housing, a representative sample of approximately 660 housing units was chosen by random sampling, using the housing unit as the unit of observation. The selected houses were divided into 12 monthly panels and the monthly rent was surveyed.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: There are detailed specifications for each product and its varieties.

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 1,295, Price observations: 12,800

Frequency with which prices are collected: Municipal market prices are collected weekly, commercial enterprises and public utilities: monthly, services: quarterly or annually.

Methods of Price Collection

- Personal data collection

Treatment of:

Missing or faulty prices: Prices that are temporarily unavailable on the market are kept constant. The same is done for seasonal products, when they are not available on the market, until they resurface.

Quality differences: No adjustments are made for changes in quality.

Appearance of new items: New products are only incorporated into the index when it is updated.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: For seasonal products, prices that are temporarily unavailable on the market are kept constant until they resurface.

Treatment of housing

Treatment of owner-occupied housing: Monthly rent is surveyed and the market rents obtained are used to impute rents to owner-occupied housing.

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: The Laspeyres formula is used to estimate the index.

Seasonally adjusted indices: The index is not seasonally adjusted.

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI data is published during the 1st week of the month following the reference period.

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

Documentation


Publications and websites where methodological information can be found: CPI methodological information for CPI 1999 = 100 can be found at http://www.bch.hn/eng/indice_precios_pubeng.php

I: Other Information

Completed by ILO in 2013.

Hong Kong Special Administrative Region, People's Republic of China

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Census and Statistics Department, HKSAR, PRC
Periodicity: Monthly

Price reference period: October 2009 – September 2010 = 100

Index reference period: October 2009 – September 2010 = 100

Weights reference period: October 2009 – September 2010

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.

Population groups excluded: Institutional households, low income households, high income households and households with average monthly household expenditure lower than HK$4,500 and higher than HK$65,999 (approximately 10%).

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;
- Housing maintenance, minor repairs;
- Major repairs, conversions and extensions to owner occupied housing;
- Purchase of gifts of goods and services given to others outside the household;
- Second hand goods purchased (second hand cars 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);
- Occupational expenditures;
- Social transfers in-kind of goods and services from government and No-profit institutions serving households.

Consumption expenditure excludes:
In-kind goods received as gifts;
In-kind services received as gifts;
Purchase of owner-occupied housing;
Mortgage repayments;
Mortgage interest;
Interest payments (excluding mortgage interest payments);
Life insurance premiums;
Gambling expenditure, gross of winnings;
Investment-related expenditures (e.g. purchase of shares/stocks);
Other business-related expenditures;
Expenditures abroad

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The CPI measures the relative change over time in the total cost of a specified basket of consumer goods and services generally purchased by households in Hong Kong. They reflect only price movements as the basket is fixed in terms of quantity and quality of the items it contains.

Definition of consumption expenditures: The CPI covers the “expenditure” of all households in Hong Kong, excluding only (i) marine population, (ii) households receiving public assistance, (iii) collective households such as those living in hospitals, prisons and homes for the aged, and (iv) households in the highest or lowest expenditure brackets which together accounted for some 10% of households. In compiling the expenditure weights, only expenditures on commodities and services (including receipts in kind from employers) purchased by households for final consumption are covered. Betting, income tax, endowment policy premiums, mortgage payments, investments and savings are excluded. For owner-occupiers, the rental equivalence approach is adopted. The estimated amount of rent which they would have to pay if their accommodation had been rented instead of owned are taken as their expenditure on the consumption of housing services.

Classification: COICOP (Classification of individual consumption by purpose) with 9 commodity/service sections, 94 groups and 241 sub-groups.

Weights include value of consumption from own production: Yes

Sources of weights: Household expenditure surveys, national accounts, various sources such as trade statistics and administrative statistics.

Frequency of weight updates: Every 3-5 years

Price updating of weight reference period to the index reference period: The reference period for expenditure weights is the same as that for the index, i.e. October 2009 – September 2010 for the latest round, there is therefore no need to price update weights.

Weights for different population groups or regions: The Census and Statistics Department compiles separate CPI series relating to households in different expenditure ranges i.e. i) CPI(A) relates to about 50% of households in Hong Kong, which are in the relatively low expenditure range; ii) CPI(B) relates to the next 30% of households, which are the medium
expenditure range; iii) CPI(C) relates to the next 10% of households, which are in the relatively high expenditure range; and iv) Composite CPI relates to all of the above households taken together. It is compiled based on the aggregate expenditure pattern for reflecting overall consumer price inflation.

D: Sample design

Sampling methods:

Localities: Judgmental sampling

Outlets: Judgmental sampling

Products: Judgmental sampling

Frequency of sample updates:

Localities: Continuous (on a rotating basis)

Outlets: Continuous (on a rotating basis)

Products: Continuous (on a rotating basis)

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Optimal sample sizes are determined crudely according to their weights and degree of variability in price movements, except for items with limited number of retail outlets or service providers (e.g. public utilities and transport).

In general, a retail outlet or service provider has to fulfil the following criteria: i) Being a retail establishment; ii) Operating in a fixed location; iii) Being a large and well-known establishment with relatively high sales volume (retail sales figures as available from other surveys may be used as reference); iv) Being a representative outlet in a district or locating at the centre of that district (e.g. on main street or shopping arcades which are frequently patronized by households). For each item covered in the CPI basket, products are generally selected according to their weights and degree of variability in price movements. Price collectors are required to collect the prices of popular (in terms of sales) varieties/brands/models in each retail outlet or service providers and record descriptions for continuous pricing. Such market information can be obtained from respondents in the retail outlet or service providers. Products chosen will be replaced when they are No longer popular in an outlet.

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 4,000, Price observations: 47,000

Frequency with which prices are collected: Fresh food items – twice a week, supermarket items – weekly or monthly; meals bought away from home, clothing and footwear, durable and other goods, private housing rents, package tours, information and telecommunication
services – monthly; cigarettes, hair dressing – bimonthly; educational related expenses – semi–annually or annually; private doctor, insurance – quarterly; public utilities such as electricity, gas, water and sewage, public transport fares – occasionally, i.e. when there are adjustments.

**Reference period for data collection:** Reference period for data collection refers to the reference month during data collection. For commodities and services where prices may fluctuate (e.g. fresh food items), prices are collected more frequently for deriving monthly averages.

**Methods of Price Collection**

- Personal data collection for fresh food, clothing, private housing rents and majority of goods and services.

- Mailed questionnaires for school fees and textbooks.

- Telephone interviews for telecommunication services, package tours, medical services, etc.

- Internet for electricity, gas and water.

- Official tariffs for public housing rents, public transportations, educational and medical services provided by the government.

**Treatment of:**

**Discounts and sales prices:** In addition to the normal prices, discounted/selling prices are also collected for the derivation of price change. Respondents are consulted about the discounts and sales profile (e.g. 50% of customers enjoyed the 20% discounts) in order to compute a weighted average.

**Second hand purchases:** Included for second-hand motor cars only (prices collected from various second hand car dealers monthly).

Period for allowing imputed missing prices: Normally, unless it is a seasonal item (e.g. fresh food, winter/summer clothing), a selected variety will be considered as permanently unavailable when there is a missing price for two consecutive reference periods. The most popular item will be selected in the same or nearby retail outlet for replacement. If the newly selected item was already available in the preceding reference period, prices in both the current and preceding reference periods will be collected.

**Disappearance of a given type or quality from the market:** A new replacement will be sought in the same or nearby outlet. The most popular item will be selected in the same retail outlet for replacement. If the newly selected item was already available in the preceding reference period, prices in both the current and preceding reference periods will be collected.

**Quality differences:** Quality changes due to item replacements are mainly performed through splicing, i.e. collecting price information regarding the new item for both the current and preceding reference periods to facilitate the comparison of price in the current reference month.
**Appearance of new items:** Entirely new items will be included in each round of CPI rebasing exercise once every five years when the basket of commodities and service are reviewed by making reference to the results of the Household Expenditure Survey.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** Clothing, Seasonal food (e.g. Chinese New Year, Mid-Autumn festival and etc.). The missing prices during off-season period are imputed by carrying forward the last observation.

**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:** The method used to impute price development in out-of-season periods is carrying forward the last observed price.

**Treatment of housing**

**Treatment of owner-occupied housing:** Rental equivalence approach is adopted for owner occupied housing.

**Types of dwellings covered by the rent data:** Private housing: a sample survey is conducted monthly to collect rental information from households residing in private and subsidized housing. Public housing: data is obtained from administrative data and updated semi-annually.

**F: Computation**

**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index) (Direct form) and the ratio of geometric mean prices (Jevons index) (Direct form)

**Formula to aggregate elementary indices to higher-level indices:** Base-weighted Laspeyres type of CPI is used.

**Formula of aggregating regional/population group indices into national index:** The CPI(A), CPI(B) and CPI(C) at commodity/service item level (i.e. elementary indices) are weighted by respective share at the item level to form the corresponding Composite CPI at item level. Composite CPI at item level are then aggregated to sub-group, group, section and finally all-items levels by corresponding weights.

**Monthly and annual average prices:** To calculate the elementary aggregates for heterogeneous items (items such as clothing, furniture, electrical appliances, etc.), the geometric mean of price relatives (i.e. Jevons indices) of individual items is used because its
resulting indices / price relatives are less affected by the heterogeneity among the set of quotations used. As for homogenous items (items such as fresh food items (e.g. salt-water fish and fresh vegetables), non-fresh food items (e.g. frozen steak, frozen chicken, red beans) and certain non-food items (e.g. motor fuel)), price quotations for the same item as collected from different outlets are pooled together to derive an average price for that reference month, and the price relative for that item is computed by comparing the average prices between two consecutive reference months.

**Seasonally adjusted indices:** X-12 ARIMA

**Software used for calculating the CPI:** Microsoft Visual FoxPro, SAS

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** i) Household Expenditure Survey: Regarding the Household Expenditure Survey, after recruiting the sampled households to participate in a given bi-weekly cycle, the interviewers would contact each participating households several times during the reference two-week period by telephoning and paying follow-up visits to them. During the follow-up visits, they collected the completed expenditure record sheets and performed on-the-spot checks to ensure the information was recorded properly and there were no inconsistencies or omissions in reporting. The telephone contacts and follow-up visits also enabled the interviewers to establish good relations with the sampled households so that the latter were less likely to drop out from the survey and more willing to provide the required information. In order to standardise the operational procedures and to ensure good quality of the survey data, all interviewers and office staff were required to follow the procedures as stipulated in their work manuals closely. Before the survey commenced, intensive training in the form of classroom lectures was given to all interviewers and coders with an aim to acquainting them with the concepts and definitions employed in the survey, the purposes and requirements of the survey and the operational procedures. Throughout the entire survey period, regular meetings were held with interviewers to enable them to exchange experience and to continuously train them on the survey requirements and techniques so that a high standard of fieldwork performance could be maintained. Meetings among the coders were also held from time to time to discuss problems they encountered. ii) Consumer Price Index: An elaborate fieldwork quality control system is established to ensure the quality of data collected. Field supervisors sample check and verify the data collected by enumerators, and pay supervisory visits to ensure that the practices in data collection are correct. Key fieldwork control statistics are compiled and reviewed on a monthly basis. Moreover, detailed instructions and coding manual are available to ensure coherence in data collection and coding by the enumerators.

**Control procedures used to ensure the quality of data processed:** i) Household Expenditure Survey: A computer-aided coding system, which integrated data processing procedures including editing, coding, data input and validation checks into one system, was adopted. Using the system, coders performed data editing, coding and input simultaneously. Immediate checks were performed by the computer system to ensure data accuracy. This ensured the data quality and accuracy as well as operational efficiency. Relevant data available from other sources (such as trade statistics; estimates of Gross Domestic Product and its components; results of other surveys and administrative statistics compiled by other
government departments) were also used to check against the results of HES in order to assess the reliability of survey data. ii) Consumer Price Index: To further safeguard the quality of the collected data, data collected are subject to manual and computer editing processes through checking a set of self-defined validation rules. For example, price quotations and item indices with significant movements are flagged by the computer system for manual checking. Besides, price data which deviates largely from those of similar outlets are verified with respondents and relevant explanatory remarks are obtained during field visits for reference by indoor editing officers.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** CPI data is disseminated 23 days after the end of the reference month, at latest.

**Level of detailed CPI published**

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

**Separate indices published for specific population groups:** CPI (A), CPI (B) and CPI(C)

**Type of products for which average prices are calculated and disseminated:** 22 selected food items

**Documentation**


**Publications and websites where methodological information can be found:** Appendix 5 of Annual Report on the Consumer Price Index 2011 gives a brief methodological information on how the CPI is compiled. It is available at [http://www.censtatd.gov.hk/products_and_services/products/publications/statistical_report/prices_household_expenditure/index.jsp](http://www.censtatd.gov.hk/products_and_services/products/publications/statistical_report/prices_household_expenditure/index.jsp)

**I: Other Information**

Reported by the country in 2012.

**Hungary**

**A: Identification**

**Title of the CPI:** National Consumer Price Index
Organisation responsible: Hungarian Central Statistical Office (HCSO)

Periodicity: Monthly

Index reference period: December of the previous year = 100

Weights reference period: The weights refer to the household expenditure structure of the t-2 year.

Main uses of CPI: Main inflation indicator used for monetary policy.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals

Population groups excluded: Institutional households

Consumption expenditure includes:

- Gambling expenditures

Consumption expenditure excludes:

- Foods produces for own final consumption;
- Other goods produced for own final consumption;
- Income in-kind receipts of goods;
- Second hand goods purchased (except cars)
- Direct taxes,
- Charitable donations,

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: CPI is the average measure of change in prices of goods and services bought for the purpose of consumption by the households in Hungary.

Classification: The classification of expenditures on consumption products is defined by the Hungarian Central Statistical Office. Besides the Classification of Individual Consumption by Purpose (COICOP) is used.

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys and national accounts.
Frequency of weight updates: Annual

Price updating of weight reference period to the index reference period: Not needed

D: Sample design

Sampling methods:

Localities: Sampling with probability proportional to size (PPS)

Outlets: Sampling with probability proportional to size (PPS)

Products: Purposive sampling

Frequency of sample updates:

Outlets: Annual

Products: Annual

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:

Item selection: Approximately 1000 items representing the most important elements of the household consumption were selected by the Central Statistical Office, by concentrated selection. The selected items should represent the price movement of the basic class and should be available for a reasonable length of time.

Outlet selection: The prices are collected in each county's capital. In addition, they are collected in a number of other randomly selected towns. Within each selected locality shops, service places and markets with the biggest turnover and largest assortment of goods are selected. Small shops are also included in the sample. The price observation does not extend to such special forms of commerce as automatic vending, shopping by mail and tax-free shops.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: In general, specifications provide detailed descriptions of the characteristics (such as brand, size, fabric/material, and so on) of the surveyed product.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 103, Outlets: 9,000, Price observations: 75,000

Frequency with which prices are collected: Monthly.

Reference period for data collection: Prices for all representative items are observed between the 1st and 20th day of every month.
Methods of Price Collection

- Personal data collection
- Telephone interview
- Internet

Treatment of:

Discounts and sales prices: Discounts and rebates that may apply to the specific products purchased are included; the consumer credit charges are excluded.

Second hand purchases: Only second hand cars are included in the CPI.

Missing or faulty prices: When a price observation is temporarily unavailable in a given month, its price is imputed based upon the price movement of similar products in the same item category in the same geographical area. The estimated (imputed) price shall be used for two months.

Period for allowing imputed missing prices: 2 months

Disappearance of a given type or quality from the market: When a product disappears from the market, a replacement is sought. Price collectors select products with significant market share and where possible the same quality; quality defined in terms of characteristics listed in product description.

Quality differences: The representative items are revised in every year and quality adjustment methods are applied by HCSO.

Appearance of new items: The list of items is reviewed each December, and when new products have gained sufficient market share they are added to the pricing sample.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Fruits and vegetables have a seasonal character. HCSO uses fixed annual weights for these items. At individual product level constant annual weights replace the variable seasonal weights according to the implementation of the new Commission Regulation No 330/2009 on the treatment of seasonal products in the HICP. For clothing and footwear, fixed-weight approach in accordance with the Commission Regulation is used.

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

Treatment of owner-occupied housing: Not included in the CPI.

**F: Computation**

**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index) (Direct form)

**Formula to aggregate elementary indices to higher-level indices:** Laspeyres methodology with fixed weights is used to aggregate base headings indices to higher-levels. Over periods of more than one year, it is an annually chained Laspeyres-type index. The index formula used at is the following:

\[
I_p = \frac{\sum W_{(t-2)} \frac{p_1}{p_0(t-2)}}{\sum W_{(t-2)}}
\]

Where

\(W_{(t-2)}\) = percentage share of each representative item or each group of representative items of goods or services in consumption in year t-2;

\(\frac{p_1}{p_0}\) = the individual price index of each representative item (quotient of prices of the reference and the base month) or the price index of each group of goods or services;

\(I_p\) = the price index of each group of goods or services, or the aggregated group of these and the total of the groups.

The consumer price index is calculated on three bases every month, which are as follows: December of the previous year, the previous month and at last the corresponding month of the previous year.

**Seasonally adjusted indices:** Seasonally adjusted indices are computed and published monthly for core inflation.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** In 2000 the HCSO developed a price collection questionnaire introducing a list of codes to describe the reasons for different changes in prices, (e.g. 1-sales, 2-sale is over, 7-item change without outlet change, 8-item and outlet change, 9-outlet change without item change, etc.). The price collectors must insert the appropriate code beside every price. This development has increased the quality of price collected and is one of the most important parts of the validation procedure.

**Control procedures used to ensure the quality of data processed:** When the collected data (both prices and codes) are fed to the computer, special software automatically checks the
logical consistency between the previous month's price, the current price and the code. It is not possible to enter a code which indicates a contrary movement in prices than comes from the price quotation. The person in charge of prices for each local office examines the control list thoroughly. They correct the prices found to be inaccurate, indicating this correction on the list.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** CPI data is disseminated on 11th of the month following the reference month unless it falls on weekend or Monday. In these latter cases on the next Tuesday. In the months of January and February 3-4 working days after 11th, since in January not only the December, but also the annual data are published, while in February it is the production of the revised weight numbers used for January for the first time that requires extra time.

**Level of detailed CPI published**

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**

**Publications and websites where indices can be found:** New release on CPI is disseminated by HCSO and is available at [http://www.ksh.hu/consumer_prices_tn](http://www.ksh.hu/consumer_prices_tn)

**Publications and websites where methodological information can be found:** Methodological information is available in statistical methodology booklets, number 39 - The method of consumer price statistics, HCSO, 2000

**I: Other Information**

Reported by the ILO in 2013.

**India**

**A: Identification**

**Title of the CPI:** Combined (National) Consumer price index

**Organisation responsible:** Central Statistics Office Ministry of Statistics and Programme Implementation Government of India.

**Periodicity:** Monthly

**Index reference period:** 2010 = 100

**Weights reference period:** 2004 – 2005 NSS 61st round Consumer Expenditure Survey.
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.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: Consumer Price Indices (CPI) measure changes over time in the general level of prices of goods and services that households acquire for the purpose of consumption.

Classification: COICOP (Classification of individual consumption by purpose)

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Every 3-5 years

D: Sample design

Sampling methods:

Outlets: Judgmental sampling

Products: Judgmental sampling

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Item selection: Multiple norms are adopted for selecting the items depending on their importance, their popularity and suitability for pricing on a continuing basis and based on the following four criteria: (i) to include all PDS items; (ii) to include all items accounting for 1% or more of total expenditure at sub-group level; (iii) to include all items accounting for more than specified percentage of total expenditure of all consumption items; (iv) to include all items for which more than 75% households have reported consumption. All items satisfying any of the above four conditions are retained.

Outlet selection: A market survey is undertaken by NSSO (National Sample Survey Organization) (FOD) for (i) identification of popular markets (ii) selection of shops/outlets for different commodities in the selected markets and (iii) determination of specifications of commodities to be priced. Rented dwellings, from which house rent data are to be collected, are also identified in all the selected towns during the market survey.
Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Specifications of items are selected on the basis of popularity in the respective areas. These specifications are different in terms of units, quality etc. for different price schedules.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 310 (towns in urban areas) and 1,181 villages (rural areas), Price observations: 1,114 (in urban areas)

Frequency with which prices are collected: Prices are collected every month by NSSO (FOD) in urban areas and by Department of Posts in rural areas. Rent data is collected once in six months.

Methods of Price Collection

- Personal data collection

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Seasonal items are vegetables and fruits. Whenever prices of these items are not reported in a particular month, weights of such items are imputed on pro-rata basis to the items in the respective section (root vegetables, fresh vegetables, fresh fruits, and dry fruits).

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 using price development of in-season products.

Treatment of housing

Treatment of owner-occupied housing: The rental equivalence approach is adopted in respect of self-owned dwellings i.e. owner occupied housing.

Types of dwellings covered by the rent data: Rent data involves two categories of dwellings i.e. rented dwellings and self-owned dwellings.

F: Computation

Formula used for calculation of elementary indices: The arithmetic average of the price ratios (Carli index) (Direct form)
Formula to aggregate elementary indices to higher-level indices: Laspeyres formula is used for aggregation of indices.

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: Provisional indices based on the data available are first released with a time lag of 30 days. These provisional indices are subsequently revised and final numbers with complete data for all India are released with a time lag of two months.

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

Documentation

Publications and websites where indices can be found: Internet website: http://mospi.nic.in

Publications and websites where methodological information can be found: A brochure explaining methods of compilation and computation of CPI is available at http://mospi.nic.in/Mospi_New/upload/new_cpi_18feb11.htm

I: Other Information

Completed by ILO in 2013.

Indonesia

A: Identification

Title of the CPI: Indonesia Consumer Price Index

Organisation responsible: Statistics Indonesia

Periodicity: Monthly

Index reference period: 2007 = 100

Weights reference period: 2007 Cost of Living Survey (CLS).
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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Urban areas

Population coverage: Resident households of nationals.

Consumption expenditure excludes:

- Gambling expenditure, gross of winnings

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The CPI measures the pure price change in a selected basket of goods and services (of constant quantity and quality) typically purchased by Indonesian households. The index is compiled as a fixed, base-weighted price index of the Laspeyres form.

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, not needed.

D: Sample design

Sampling methods:

Outlets: Representative and purposive sampling

Products: Judgmental sampling

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Outlets: For the outlet selection, representative and purposive sampling for retail outlet and housing units is used.

Items: Commodities and varieties within outlets are generally selected by the judgmental method.

E: Data Collection
Frequency with which prices are collected: The frequencies of price data collection are different from one item to another depending on the characteristic of the items as follows: i) Rice price data collection in Jakarta is daily; ii) For several items popularly known as basic necessities, price data are collected weekly on Monday and Tuesday; iii) For some food items, price data are collected every two weeks on Wednesday and Thursday of the first week and the third week; iv) For other food items, prepared food, drinks, cigarettes and tobacco, price data are collected monthly on Tuesday close to day 15 during 3 days (Tuesday, Wednesday and Thursday); v) For durable goods price data are collected monthly on day 5 to day 15; vi) Services price data are collected monthly on day 1 to day 10; vii) House rents data are collected monthly on day 1 to 10. viii) Domestic servant and baby sitter salaries are observed monthly on day 1 to 10; ix) Data related to the education expenses are collected monthly on day 1 to 10.

Methods of Price Collection

- Personal data collection

- Price lists

Treatment of:

Discounts and sales prices: Sales prices are included in price collection.

Missing or faulty prices: If there are missing prices in calculating CPI, the missing data are excluded because matching of samples is used.

Disappearance of a given type or quality from the market: Once items become unavailable, replacement items with similar quality are selected. The current and previous period prices are collected for the replacement items.

Quality differences: No process of adjustment for quality differences is done.

Appearance of new items: New items are never considered.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Seasonal items are not considered.

Treatment of housing

Treatment of owner-occupied housing: Owner occupied housing is not considered in the calculation of CPI.

F: Computation

Formula used for calculation of elementary indices: The ratio of arithmetic mean prices (Dutot index) (Direct form) and the ratio of geometric mean prices (Jevons index) (Direct form)
Formula to aggregate elementary indices to higher-level indices: The indexes are computed by using modified Laspeyres method by the following formula:

\[ I_n = \frac{\sum_{i=1}^{k} \frac{P_{ni}}{P_{(n-1)i}} (P_{(n-1)i} \cdot Q_{0i})}{\sum_{i=1}^{k} P_{0i} \cdot Q_{0i}} \times 100 \]

where:

- \( I_n \) = Index in month \( n \) (current month)
- \( P_{ni} \) = Prices in month \( n \) (current month)
- \( P_{(n-1)i} \) = Prices in \( n-1 \) (previous month)
- \( P_{(n-1)i} \cdot Q_{0i} \) = Consumption value in \( n-1 \) (previous month)
- \( \sum_{i=1}^{k} P_{0i} \cdot Q_{0i} \) = Consumption value in \( n-1 \) (previous month)

Seasonally adjusted indices: No seasonal adjustment is done.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Verification of prices collected is done by comparing relative price of one item to the other and comparing prices from business and government regulations.

Control procedures used to ensure the quality of data processed: Verification of process is done by estimating country level index using the city weights based on the number of households in each city. If the differences are significance, field checking is applied.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI data is disseminated the 1st day after the end of the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation


Publications and websites where methodological information can be found: A brief description of the methodology is published in each issue of Monthly Statistical Bulletin: “Economic Indicators”. More detailed documentation is available upon request.

I: Other Information

Completed by ILO in 2013.

Iraq

A: Identification

Title of the CPI: All Iraq Consumer Price Index

Organisation responsible: Central Organization of Statistics and Information Technology (COSIT)

Periodicity: Monthly

Index reference period: 2007 = 100


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, 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.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index measures price changes for goods and services consumed by all households in the country, including the three governorates of Kurdistan region.
**Classification:** COICOP (Classification of individual consumption by purpose) with 12 major groups at 7 digit level of detail.

**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, not needed.

**D: Sample design**

**Sampling methods:**

*Outlets:* Judgmental sampling

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

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:** Item selection: To select the products basket for consumer price index, the cut-off sampling method is used. The sample includes all products with monthly individual average expenditure exceeding 25 ID on the Iraqi Household Social and Economical Survey (IHSES) on 2007.

**E: Data Collection**

**Frequency with which prices are collected:** For fruits, vegetables and oil products (except Gasoline): Prices are collected weekly. For non-food items and services: Prices are collected once a month.

**Reference period for data collection:** Foodstuff, beverages and tobacco and clothes – reference period is between 1st – 10th day of the month. Housing, health and education groups – prices are collected on 11th – 20th day of the month. Transportation, communication, recreation, restaurants, miscellaneous services and goods – prices are collected on 21st - 28th of the month.

**Methods of Price Collection**

- Personal data collection for most of the items.

**Treatment of:**

**Missing or faulty prices:** The treatment of temporarily missing items, even seasonal ones, depends on stratum imputation. The missing items being imputed in elementary aggregate and higher-level aggregates as well. For rent, index, if units become vacant and the rent is missing, an immediate replacement is made with a similar unit rather than imputing a rent for the vacant unit.

**Treatment of seasonal items and seasonality**
Treatment of housing

Treatment of owner-occupied housing: No imputation is made for the implicit rental expenditure of households owning the dwellings they occupy.

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: CPI of subgroups, main groups and divisions is calculated by the Laspeyres formula give as

\[ I_p = \frac{\sum P_i/P_0 \times W}{\sum W} \times 100 \]

where:

\( P_i/P_0 \) : represents product price relative of the product.
\( W \) : represents product weight from Household Social and Economic Survey.

Formula of aggregating regional/population group indices into national index: The national index is calculated as a weighted average of long term relatives of goods and services items, where the product long term relative is the ratio of the national average price of the item in the current month with the national average price in the base year in each governorate. Iraq CPI is calculated after getting the price relative of the product by Jevons Formula in each of the 18 governorates after getting an average for prices relatives of each product weighted with the relative importance of the monthly total expenditure of all products and services in the governorate in the following formula:

\[ P_i/P_0 \text{(weighted)} = \frac{\sum P_i/P_0 \text{(Gov)} \times \bar{W}}{\sum \bar{W}} \]

where:

\( P_i/P_0 \text{(weighted)} \) : Represents the weighted price relative of the product from all governorates.
\( P_i/P_0 \text{(Gov)} \) : Represents the calculated price relative of the governorate for the product.
\( \bar{W} \) : Represents product weight at the governorate (the relative importance of the monthly total expenditure of all products and services in the governorate)

After calculating weighted price relative above, Laspeyres formula is used to calculate CPI in Iraq in the same hierarchy way followed by the governorates. In the same way CPI of the three regions (Kurdistan, middle, south) is calculated by the above formula in calculating weighted price relative for each product in the region (depending on prices relatives of the governorates in the region) and then using Laspeyres formula to calculate CPI of other divisions and groups for each region.

Software used for calculating the CPI: Backend unit. This is an Oracle based CPI software.
G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Prices are checked in field where a certain price is refused if it exceeds a certain proportion 5% in the PDA. At the Backend, two validation rules are set, the first is comparing the price with the last available one and the second is filtering the prices which fall outside an expected range which is set every month.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI is released 15 days after the end of the reference month or 4 months after the concerned year for annual report.

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

Documentation


Publications and websites where methodological information can be found: The most recent issue of a detailed methodology report was in December 2009, after introduction of the 2007 weights in 2008, entitled “CPI Items Basket and Weights of the Base Year 2007.” The document was in very wide distribution; it is published in both English and Arabic languages. Brief methodological information can also be found in the monthly CPI reports available at http://cosit.gov.iq/english/indices.php

I: Other Information

Completed by ILO in 2013.

Ireland

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Central Statistics Office (CSO)

Periodicity: Monthly
Price reference period: December 2011 = 100

Index reference period: December 2011 = 100

Weights reference period:

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, resident households of foreigners in the country and temporary visitors.

Population groups excluded: Institutional households.

Consumption expenditure includes:

- Food consumed away from home;
- Mortgage interest;
- Housing maintenance, minor repairs;
- Second hand goods purchased (second hand cars 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)

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;
- 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;
• 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: The CPI is defined as an average measure of change in the prices of goods and services bought for the purpose of consumption by all private households in the country and by foreign tourists on holiday in Ireland. The CPI is the official measure of inflation in Ireland.

Definition of consumption expenditures: The CPI mostly measures the acquisition of goods and services, but there is one notable exception, namely mortgage interest where a payment approach is adopted.


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: The expenditure estimates were updated for price changes up to mid-December 2011 using the percentage changes between 2010 and mid-December 2011 in the prices of the individual item headings covered by the former index series.

Weights for different population groups or regions: The Household Budget Survey (HBS) provides average household expenditure by COICOP division (2-digit), group (3-digit), class (4-digit) and NUTS 3 region. The eight Nomenclature of Territorial Units for Statistics 3 (NUTS 3) regions were combined into five areas. Area weights, which are used in the compilation of the CPI, 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.

D: Sample design

Sampling methods:

Localities: Judgmental sampling
Outlets: Judgmental sampling

Products: Judgmental sampling

Frequency of sample updates:

Localities: Every five years

Outlets: Every five years

Products: Every five years

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Local price collection – Direct Pricing

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.

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 which are the most popular are chosen). As the CPI is intended to reflect only price change, the sample of retail outlets remains the same 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.

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, market research, trade magazines, media reports and discussions with retailers, service providers and trade organisations.

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 were priced in all pricing locations.

Centralised price collection – Special Inquiries (postal, telephone, e-mail and internet price collection)

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.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: The CSO supplies general specifications to price collectors. Price collectors are free initially to select a brand and, in certain cases, size. In each retail outlet, the price collectors choose one representative item variety from all item varieties matching the specification of each item heading to be priced in that retail outlet. To facilitate this, price collectors can seek assistance from staff in the retail outlet. Once selected the same item variety with the same specifications is priced each month.

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Localities: 84, Outlets: 3,500, Price observations: 53,000

**Frequency with which prices are collected:** 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 Inquiries” operations (i.e. by CPI headquarters staff from service providers). The general rule is that direct pricing operations are carried out on a monthly basis while “Special Inquiries” operation mainly collects prices on a quarterly basis, with prices for the remaining “Special Inquiries” collected monthly or annually as appropriate.

**Reference period for data collection:** The reference period for direct pricing operations is over a period of more than one week i.e. Monday prior to the second Tuesday of the reference month up to and including the third Tuesday of the reference month. The reference period for “Special Inquiries” is the second Tuesday of the reference month.

**Methods of Price Collection**

- Personal data collection for food and non-alcoholic beverages (bought in retail outlets and restaurants, cafes, fast food and take-away food outlets), alcoholic beverages (off-licence sales and alcohol consumed on licensed premises), tobacco, clothing, footwear, materials for the maintenance and repair of the dwelling, bottled gas, solid fuels, furniture and furnishings, carpets and other floor coverings, household textiles, household appliances, glassware, tableware and household utensils, tools and equipment for house and garden, non-durable household goods, medical products, motor cycles, bicycles, petrol, diesel, motor oil, telephone equipment, audio-visual, photographic and information processing equipment, major durables for indoor and outdoor recreation including musical instruments, other recreational items and equipment, gardens and pets, nightclubs, other cultural services, books, comics and magazines, miscellaneous printed matter and stationery and drawing materials, personal care products and services, personal effects n.e.c.
- Mailed questionnaires for rents, mortgage interest, other services relating to the dwelling n.e.c., repair of household appliances, prescribed drugs, therapeutic appliances and equipment, medical and paramedical services, dental services, hospital services, spare parts and accessories for personal transport equipment, maintenance and repair of personal transport equipment, other vehicle costs, rail fares, bus fares, combined passenger transport, other purchased transport services, repair of information processing equipment, veterinary and other services for pets, sports participation, club and society subscriptions, newspapers, education, canteens, social protection, insurance connected with the dwelling, health and transport, financial services, other services n.e.c.

- Scanner data for services, for the maintenance and repair of the dwelling, home heating oil, domestic services and household services.

- Internet for refuse collection, electricity, natural gas, motor tax, toll charges, driving test fees, driving licences, taxi fares, air fares, boat fares, postal services, telephone services, internet services, sports admittance, cinema, cultural admittance, television services and accommodation services.

Treatment of:

Discounts and sales prices: Discounts prices are recorded if the subsidies or discounts are available to all potential consumers (i.e. non-discriminatory). Sales prices are recorded if the sales price is a temporary reduction on goods likely to be available again at normal prices or end of season reductions.

Black market prices: Not collected.

Second hand purchases: Included for second-hand motor cars. Prices are obtained from the Car Sales Guide reproduced monthly by Motor Trade Publishers.

Missing or faulty prices: A matched basket approach is applied at all times. Recalculation of the elementary aggregate (i.e. area average price) for the previous month is done where necessary. If an item is missing in the current month, it is excluded from the elementary aggregate calculation for both the current and the previous month.

Disappearance of a given type or quality from the market: If an item variety becomes unavailable, then the price collector substitutes an alternative representative item variety in its place. The price collector may seek assistance from staff in the retail outlet, if necessary. If a new item (replacement) is introduced, it is excluded from the index calculations until prices are available for two consecutive months, at which stage it is included for both of these months to maintain the matched basket approach.

Quality differences: When the quality of a substitute item variety is not comparable with the old item variety and an overlap price or direct quality adjustment data are not available, a bridged overlap quality adjustment technique is applied. Using this technique, no price comparison is made between the two item varieties when the replacement is brought into the index. The price change between the two observations is imputed as the average change for the other matched price observations for the specific item. For a price observation to be brought into the index, it must be available for two consecutive periods.
Appearance of new items: Newly significant goods and services are introduced at the sub-item level, i.e. item descriptions are maintained for a five-year period. Within an item, a newly significant good or service can be introduced at any point. These are identified by central research (e.g. trade magazines, discussions with service providers) and local research (CSO staff conduct research in retail outlets). In some cases where a completely new service is introduced (e.g. the introduction of the plastic bag level in 2001, household charge in 2012), the effect of this in weighing terms in the CPI can be estimated and it can be introduced. A systematic larger-scale updating of the basket of goods and services takes place every five years.

Treatment of seasonal items and seasonality

Treatment of housing

Treatment of owner-occupied housing: The purchase of a house is an investment in a capital asset, purchased over a long period of time that usually appreciates in value. It does not form part of consumption. House prices are excluded from the CPI. The CPI does, however, include the current costs of housing, such as mortgage interest costs. These costs reflect not only changes in interest rates but also the size of the average mortgage. Measurements of the latter takes into account the trend in house prices and as a result these price trends are taken into account, indirectly, in the index.

Types of dwellings covered by the rent data: Private rents – rents for apartments and houses are collected each month from a sample of letting agents throughout the country. Local authority rents – rents for apartments and houses are collected each quarter from a sample of local authorities throughout the country.

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: The index at time t based on time 0 is a Laspeyres-type or fixed base weight index, being the price of the basket at a given time as a percentage of its price in the base reference period:

\[ I_{t,0} = \left( \frac{\sum Q_0 P_c}{\sum Q_0 P_0} \right) \times 100 \]

where:

- \( Q_0 \) and \( P_0 \) are the quantity (fixed) and average price respectively, of an index item heading in the base (0) month;
- \( P_c \) is the average price of the same index item heading in the current (c) month;
- \( \Sigma \) represents summation over all index item headings.

A modified version of this formula is used for calculation purposes, namely:
$I_{t,0} = \left( \frac{\sum(V_{c-1}) P_c}{\sum V_0} \right) \times 100$

where:

$V_0$ and $V_{c-1}$ are the expenditure value (weight) of an index item heading in the base (0) or previous (c-1) month;

$P_c$ and $P_{c-1}$ are the average price of the same index item heading in the current (c) and previous (c-1) month;

$\Sigma$ represents summation over all index item headings.

**Monthly and annual average prices:** Each month, area average prices (AAPs) are calculated for the 506 directly priced items. For CPI purposes, the eight NUTS 3 regions are combined into five CPI pricing areas ((1) Dublin, (2) South West, (3) Border, Midland and West, (4) Mid-West and Mid-East and (5) South East). An AAP is calculated as the geometric mean of the prices within the given area. Each month, an AAP is calculated both for the current month and the previous month based only on matched price observations between the two periods. The next step is the calculation of a national average price (NAP) for each of the 506 directly priced items. This is the weighted average of the AAPs with a different weight applied to each area. Again, each month, a NAP for both the current and previous month is calculated based on matched price observations only.

**Software used for calculating the CPI:** SAS Business Intelligence (SAS BI)

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** Prices are collected with detailed product descriptions and indicators of sales, multiple offers etc. 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. Multiple locations are visited each month and price collectors do not know in advance which locations will be chosen for the quality control checks.

**Control procedures used to ensure the quality of data processed:** The most important data check is price change. The price recorded 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 relevant price range are re-checked by CPI staff to determine inclusion or exclusion for the purpose of the CPI compilation for that month. Once the price data is correct and complete, preliminary item indices are calculated using the prices, which passed the data checks, plus those that have been manually accepted. These preliminary item indices are in turn checked to ensure price changes have been correctly reflected in the calculations. Both micro- and macro-edits are applied, checking price ratios for individual items, elementary aggregates and higher-levels of aggregation.
H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI data is published nationally four weeks and two days following the second Tuesday of the reference month. The exception is the December data, which is published nationally five weeks and two days following the second Tuesday 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), Basic Items

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

Type of products for which average prices are calculated and disseminated: National average prices (NAPs) are calculated for 74 items e.g. food and non-alcoholic beverages, alcoholic beverages (off-licence sales and alcohol consumed on licensed premises), tobacco, petrol, diesel, cinema admission, nightclub admission and hairdressing services.

Documentation


I: Other Information

Reported by the country in 2012.

Islamic Republic of Iran

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Statistical Centre of Iran (SCI)

Periodicity: Monthly

Price reference period: 2002 = 100
Index reference period: 2002 = 100

Weights reference period: 2002

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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Consumption expenditure includes:

- Food consumed away from home;
- Housing maintenance, minor repairs;
- Luxury goods;
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims

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;
- Second hand goods purchased;
- Financial services (including fees for financial advice, brokerage fees);
- Interest payments (excluding mortgage interest payments);
- Life insurance premiums;
- Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
- 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: A consumer price index (CPI) measures changes in the price of goods and services that households consume.

Definition of consumption expenditures: Consumption Expenditures is all the items of household expenditures and income survey of the SCI - “Payment approach is used”.

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: Above 5 years

Price updating of weight reference period to the index reference period: Yes

Weights for different population groups or regions: Urban areas and rural areas weights are compiled.

D: Sample design

Sampling methods:

Outlets: Two stage sampling is used for outlets.

Frequency of sample updates:

Outlets: Continuous (on a rotating basis)

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Stability, weights and ability to enumerate.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 293, Outlets: 55,000, Price observations: 220,000

Frequency with which prices are collected: It is seasonal for some services.

Reference period for data collection: A month

Methods of Price Collection
- Personal data collection for all items.

**Treatment of:**

**Discounts and sales prices:** They are not taken.

**Black market prices:** Not collected.

**Second hand purchases:** Not included.

**Missing or faulty prices:** Omission, carrying forward the previous observation and extrapolation by using the change of the other prices for the same item depending on the type of missing data.

Period for allowing imputed missing prices: 3 months after which a replacement item is selected.

**Disappearance of a given type or quality from the market:** Replacement of variety.

**Quality differences:** Last month price is collected for new item quality.

**Appearance of new items:** New items can be included when rebasing of the CPI.

**Treatment of seasonal items and seasonality**

**Method to impute the price of seasonal items:** Nominal price

**Treatment of housing**

**Treatment of owner-occupied housing:** Owner occupied housing is included in the CPI and price relative rental house.

**Types of dwellings covered by the rent data:** Rental houses / monthly

**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:** The consumer price index is calculated using the Laspeyres formula defined as

\[
I_{t,0} = \frac{\sum_{i=1}^{n} P_i^t Q_i^0}{\sum_{i=1}^{n} P_i^0 Q_i^0} \times 100 = \frac{\sum_{i=1}^{n} P_i^{t-1} Q_i^0 \times \left( \frac{P_i^t}{P_i^{t-1}} \right)}{\sum_{i=1}^{n} P_i^0 Q_i^0} \times 100
\]

where

\( I_{t,0} \): represents the index in period “t” relative to the base period.
$n$: represents the total number of goods and services comprising the CPI basket.

$P_t^i$: represents the price for item “$i$” at the period “$t$” (observation period).

$P_0^i$: represents the price for item “$i$” at the base period.

$Q_0^i$: represents the quantity for item “$i$” at the base period.

**Formula of aggregating regional/population group indices into national index:**
Plutocratic Approach

**Monthly and annual average prices:** Average prices are calculated as arithmetic averages.

**Software used for calculating the CPI:** Self developed programme.

**G: Editing and validation procedures**

Control procedures used to ensure the quality of data collected: Controlling of relative prices of all items in every month.

Control procedures used to ensure the quality of data processed: Controlling of relative prices of all items in every month.

**H: Documentation and dissemination**

**Level of detailed CPI published**

**Paper publication:** Division-level (12 Divisions)

**Restricted Access:** All items CPI

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

**Documentation**

**Publications and websites where indices can be found:** At the present time indices data are not accessible by the public.

**Publications and websites where methodological information can be found:** At the present time indices data are not accessible by the public.

**I: Other Information**

Reported by the country in 2012.

**Israel**
A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Central bureau of statistics / Consumer price index department

Periodicity: Monthly

Price reference period: 2010 = 100

Index reference period: December 2011 = 100

Weights reference period: 2011 – 2012

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.

Population groups excluded: Institutional households.

Consumption expenditure includes:

- Food consumed away from home;
- Income in-kind receipts of goods;
- In-kind goods received as gifts;
- Purchase of owner-occupied housing;
- Housing maintenance, minor repairs;
- Major repairs, conversions and extensions to owner occupied housing;
- Purchase of gifts of goods and services given to others outside the household;
- Second hand goods purchased (second hand cars 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);
- Investment-related expenditures (e.g. purchase of shares/stocks);
- Occupational expenditures;
- Other business-related expenditures;
• Expenditures abroad

**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 services;
• In-kind services received as gifts;
• Mortgage repayments;
• Mortgage interest;
• Interest payments (excluding mortgage interest payments);
• Life insurance premiums;
• Gambling expenditure, gross of winnings;
• 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 indices measure the percent of change over time in the cost of a “fixed basket” of goods and services, or the change in revenue obtained for a fixed basket of goods and services. Such a “basket” represents patterns of consumption or production as reflected over a certain period, which constitutes the base period of each index. The basket of each index includes goods and services of fixed or equivalent quality and quantity, so that the changes in index represent changes in prices only.

**Definition of consumption expenditures:** Total consumption expenditure: a household's total outlays for commodities and services and imputation of consumption expenditure for housing services and motor vehicle (since the purchase of these goods is defined as investment, not consumption).

**Classification:** COICOP

**Weights include value of consumption from own production:** No

**Sources of weights:** Household expenditure surveys.

**Frequency of weight updates:** Every two years

**Price updating of weight reference period to the index reference period:** The composition of household consumption expenses during the base period is obtained from household expenditure surveys. The goods and services basket of the consumer price index whose prices are measured from January 2011 until December 2012 is based on the findings of 2008–2009 household expenditure surveys. In order to compute the index, the survey data have been adjusted to the average level of prices in 2010, and the index is presented for that period according to the average base: 2010 = 100 points. As of January 2011, the index is presented in relation to the base period 2010 = 100 points. The index is based on the findings of household expenditure surveys conducted in 2008 and 2009, and has been adapted to the average level of prices in 2010.
**Weights for different population groups or regions:** Weights by income quintiles.

**D: Sample design**

**Sampling methods:**

*Localities:* Sampling with probability proportional to size (PPS)

*Outlets:* Sampling with probability proportional to size (PPS)

*Products:* Sampling with probability proportional to size (PPS)

**Frequency of sample updates:**

*Localities:* Continuous (on a rotating basis)

*Outlets:* Continuous (on a rotating basis)

*Products:* Continuous (on a rotating basis)

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:** Item selection: Items accounting for 0.1 percent or more in the household expenditure survey are selected. The specific varieties are selected by enumerators in outlets based on the variety with the largest sales volume.

Outlet selection is based on size of sales within locality and industrial branch using administrative records for VAT collections. Outlet sample comes from an area sample of 50 localities selected from all urban areas of Israel with 2,000 or more population using probability sampling based on size of total household expenditure.

**Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office:** General specifications are provided and enumerators complete details (e.g. brand, make, and quality) which are then entered on computerized collection forms at the first collection.

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Localities: 2,300, Outlets: 1,400, Price observations: 68,000

**Frequency with which prices are collected:** Most prices are collected monthly and are spread throughout the four weeks of the month. Prices for goods, like food, are collected on a weekly basis, while those for services like electricity, gas, water, medical care, transport, communication, rent information and household domestic service are collected on a monthly basis.

**Reference period for data collection:** For most items, the outlets are staggered into 4 groups with one group collected during enumerators’ visit each week. Fresh fruits and vegetables prices are collected for a specific reference day during the week.
Methods of Price Collection

- Personal data collection for goods.
- Mailed questionnaires for special services like communication.
- Telephone interviews for services.
- Internet for goods and services.

Treatment of:

Black market prices: Not collected.

Second hand purchases: Included for second-hand motor cars only (from official tariff).

Missing or faulty prices: When no item is available, the price movement is imputed using the price change for the same item in other outlets or, if not available in any outlets, the price movement in similar items.

Period for allowing imputed missing prices: Missing price is allowed for 3 months.

Disappearance of a given type or quality from the market: When a variety is permanently unavailable, enumerators select a replacement with as many of the same quality characteristics as possible. New items are introduced when the market basket is updated.

Quality differences: When large quality changes occur, the varieties are linked into the index so that their introduction does not affect the price level. Small quality changes are considered as a change in price. Direct quality adjustments are made only in some special cases, when there are enough characteristics to estimate the price effects.

Appearance of new items: The list of items is reviewed each January and new products added.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Fresh fruits and vegetables, clothing and footwear have a seasonal character.

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: The method used to impute price development in out-of-season periods is carrying forward the last observed price.
Treatment of housing

Treatment of owner-occupied housing: Two data sources are used for owner-occupied housing i.e. i) a monthly rental survey that includes all 8,000 observations for the rental component; and about 1,500 for owner occupied housing (a two month moving average in order to reduce variance), ii) an additional outside data source of rental houses for owner occupied housing (about 2,000 renters annually) and integrate the outside data with the main database for reinforcing of "weak" cells. The method for imputation of owner occupied housing is based on stratified average prices of contracts that are subject to renewal. In order to reduce variance in the monthly series, two month moving averages are compared, each month.

Types of dwellings covered by the rent data: The rental component of the index uses all of the observations from the rental survey as these have information on the linking mechanism for adjusting rental prices during the months in which the contract is not renewed. The price index for the rent component is similar to the services collected in the CATI program (monthly prices of identical services i.e. rental units).

F: Computation

Formula used for calculation of elementary indices: Laspeyres index formula.

Formula to aggregate elementary indices to higher-level indices: Laspeyres index formula.

\[ I_i = \frac{\sum_{j \in L} p_{ij} \cdot \frac{1}{p_{ij}} \cdot \frac{P_{i-1,ij}}{p_{ij}}}{\sum_{j \in L} p_{ij} \cdot \frac{Q_{ij}}{p_{ij}}} \cdot 100 \]

Monthly and annual average prices: For a variety of materials, commodities and services, average prices are published. These prices are based on the actual amount collected in every transaction, and are obtained from a sample of reports, according to the type of index (shops, businesses, establishments, etc.). Average prices include taxes, discounts, and various duties and may or may not include VAT, depending on the type of index. In contrast to the indices, average prices do not include changes in terms of payment and accompanying credit, and they reflect potential changes in the composition of the reporting parties. Average prices are intended only as an indicator of the amounts of prices during a given period.

Seasonally adjusted indices: Yes.

Software used for calculating the CPI: Self developed software written in C++.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Methods for ensuring quality collected data are online checks while data is collected and automatic validation procedures which detect "suspicious" cases and send them to manual editing.
Control procedures used to ensure the quality of data processed: Using GUI which presents data in different views and aspects using wide set of reports and queries (about 500 pre-defined queries).

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The price data is collected throughout the month and processed in time for the dissemination on the 15th of each month.

Level of detailed CPI published

Paper publication: Division-level (12 Divisions), Group-level app. 40 groups, Class-level (100 classes) and Average prices

Online: Division-level (12 Divisions), Group-level app. 40 groups, Class-level (100 classes), Average prices

Restricted Access: All items CPI, Basic items

Separate indices published for specific population groups: There are separate indices for quintiles income.

Type of products for which average prices are calculated and disseminated: Food products and energy.

Documentation

Publications and websites where indices can be found: Indices can be found on the website: www.cbs.gov.il under the title “Price Indices”.

Publications and websites where methodological information can be found: Website: www.cbs.gov.il for Price Indices and Price Statistics and Monthly Consumer Prices Index.

I: Other Information

Reported by the country in 2012.

Italy

A: Identification

Title of the CPI: Consumer Price Index for the whole nation (NIC)

Organisation responsible: ISTAT. At territorial level, ISTAT coordinates and supervises data collection carried out by Municipal Statistics Offices (MOSs).
Periodicity: Monthly

Price reference period: December 2011 = 100

Index reference period: 2010 = 100

Weights reference period: 2011

Main uses of CPI: Main inflation indicator used for monetary policy, deflates household expenditures in national accounts, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Urban areas

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

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;
- 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 repayments;
- Mortgage interest;
- Major repairs, conversions and extensions to owner occupied housing;
- Second hand goods purchased;
- 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 Consumer Price Index for the whole nation (NIC) is based on the entire present population’s consumption and is used to measure the change of prices of goods and services for household consumption.

Definition of consumption expenditures: Household final consumption (gross prices)

Classification: COICOP

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys, national accounts, Bank of Italy; market research centres such as ISMEA and A.C. Nielsen-Italia for food and grocery, Sita-Ricerca for clothing and footwear; professional associations like ANIA for insurance services, FIEG for newspapers and magazines, ANIE for household appliances, FEDERLEGNo for furniture, Unione Petrolifera for fuels, AIFA for pharmaceutical products, etc.

Frequency of weight updates: Annual

Price updating of weight reference period to the index reference period: At the first stage, the weight computation foresees the estimation at national level of expenditure corresponding to single consumption segment which define consumer price index observation field. For this goal, household final monetary consumption expenditure (for 56 functions), referred to the year t – 2 and provided by national accounts, are used. The 56 expenditure functions are disaggregated and linked to lower levels of COICOP classification, using, in a selective manner, additional information derived from household budget survey (referred to year t – 2), other ISTAT surveys and external sources. In the source hierarchy, national accounts data have a basic part, while the information derived from other sources have an auxiliary function that is to permit the sharing of aggregate data among each strata of consumption universe. In the next stage, the expenditure data of each consumption segment are shared among basket products (“representative items”), included according to representativeness criteria. The expenditure data of each “representative items” (referred to year t – 2) are price up-dated to December t – 1 (the computation index base), using the price change data, registered by corresponding elementary consumer price indices. The price updated expenditure values are used to estimate weighting coefficients of basket goods and services, as the ratio between expenditure for acquisition of each “representative item” and the total amount of household final monetary consumption expenditures.
Weights for different population groups or regions: Weights for regions and provincial capitals are compiled.

**D: Sample design**

**Sampling methods:**

*Localities*: Law No 26 November 1975, n. 621 (Changes to Royal Decree – Law No 222, 20 February 1927, converted in the Law No 2421, 18 December 1927) which establishes the municipalities where consumer price survey has to be carried out (province chief town or municipalities with more than 30,000 inhabitants and with a suitable statistics office).

*Outlets*: 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 outlet selection is carried out directly by MOSs, according to rules established by ISTAT. It takes into account: i) the relative weight of products in the basket; ii) variability of prices; iii) availability of products included in the basket; iv) territory and demographic size of the municipality; v) type and distribution of outlets on municipal territory; vi) turnover shares of large, small scale and traditional distribution; and vii) popularity with consumers.

For dwelling selection, a rental survey is carried out directly by MOSs taking into account the dwelling size, location, and ownership type (private or public).

The item selection, in the first stage, is carried out by ISTAT using several sources: National accounts and household budget survey data; several outside sources and information from MOSs. In the second stage, the product-offers selection is made by price collectors in the field, in accordance with the ‘the most sold’ principle. Price collection covers both tightly and loosely specified products. Loose specifications are used if the prices within a product group are considered sufficiently homogenous.

**Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office:** The selection is made by price collectors in the field, in accordance with the ‘the most sold’ principle.

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Localities: 84, Outlets: 42,000, Price observations: 591,000
Frequency with which prices are collected: Prices are bimonthly collected for fresh fish, fresh fruits, fresh vegetables, gas in cylinders, heating oil, fuel for personal transport, passenger transport by railway, passenger transport by air, passenger transport by sea and inland waterway, magazines and periodicals; for the others goods and services, the price collection is monthly.

Reference period for data collection: For fresh fish, fresh fruits, fresh vegetables, gas in cylinders, heating oil, fuel for personal transport, prices are collected the 1st and the 10th working day of the month (to calculate the average price). For each product whose prices are collected monthly, the collection is evenly shared in the full period which starts from the 1st and the 21st day of the reference month. For some services, such as water supply, gas for domestic use and urban transports or contributions for NHS related to medical and paramedical services, prices are collected on the 15th of the reference month; and for the local daily newspaper, prices are collected on the 9th and the 15th working day (to calculate the week average price).

Methods of Price Collection

- Personal data collection for the products whose prices are collected locally by MOSs and monthly sent to ISTAT (food, clothing and footwear, actual rental for housing, furnishing and household equipment; medical services; education; insurance, etc.). Local price collection operations are carried out entirely using ultra mobile PCs or tablet PCs.

- Scanner data in some large cities, principally for food and grocery.

- Internet for the majority of products observed directly by ISTAT (tobacco; pharmaceutical products; vehicles; some transport services; postal services; telephone equipment and services; audio-visual, photographic and information processing equipment; newspapers, books; package holidays and some accommodation services, etc.)

- Official tariffs for water supply, refuse collection, sewerage collection, electricity and gas.

Treatment of:

Discounts and sales prices: They are not taken.

Black market prices: Not collected.

Second hand purchases: Not included.

Missing or faulty prices: Carrying forward the previous price is used for missing observation (but not for seasonal products/items). For fuel, personal transport and heating oil, missing prices are imputed using changes of week average prices provided by Ministry of Economic Development. For “in season” seasonal products of fresh fruits and fresh vegetables, missing prices are imputed using observed price changes of only “in season” seasonal products. For “not in season” products of fresh fruits and fresh vegetables, missing prices are imputed using observed price changes of “not in season” products. For “in season” seasonal products of clothing and footwear, missing prices are imputed using observed price changes of only “in season” seasonal products. For “not in season” products of clothing and footwear, missing prices are imputed by carrying forward previous prices. For most of the
centrally collected prices, usually, in case of missing observations, the procedure used for estimation consists of applying the month to month rate change of observed prices in their particular stratum.

Period for allowing imputed missing prices: ISTAT carries forward the previous price normally for only 2 months. Replacement prices are used within the third month. Responsible of item replacement is the price collector who, inside the same outlet, selects the new item in accordance with the ‘the most sold’ principle. If a missing price is caused by closing outlet, the new outlet (with similar characteristics of the previous one) is replaced and the selection is made by MOSs.

**Quality differences:** A case-by-case approach is adopted. Quality adjustment methods adopted are: i) direct comparison (in some cases for clothing and footwear; fresh food; products for which best seller approach is adopted – electronic games, DVD movies; most of the products whose price are centrally collect – direct comparison inside their particular stratum); ii) bridge overlap and combination of bridge overlap and class mean imputation (for clothing and footwear); iii) overlap (for the other products whose prices are collected locally). Explicit quality adjustments are made where possible.

**Appearance of new items:** Newly significant goods and services are usually identified using information provided by the MOS and a variety of ISTAT sources and ad-hoc sources. In principle, the introduction of new items is carried out on the occasion of the annual re-basement of the index.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** Fresh fruits, fresh vegetables, clothing and footwear. Seasonal items are treated according to minimum standards established by the Commission Regulation No 330/2009: as required, for non-available prices in out-of-season months, counter-seasonal estimation is adopted; only if information for these estimation methods is not available, all-seasonal estimation is used.

**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:** Types of dwellings covered: i) dwellings representative of different kinds shared between centre and suburbs; ii) new and existing dwellings; iii) all cadastral categories; iv) dwelling representative of different kinds of
ownership (private and public). Method: survey carried out by MOSs. Frequency for data collection of rents is monthly.

**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:** For the aggregation of elementary indices into higher-level indices Laspeyres formula is used.

**Formula of aggregating regional/population group indices into national index:** Starting from elementary index of representative item h at provincial capital level, the regional index of the representative item h, in the month m of year a, is calculated as follows:

\[ R I_{h}^{m,a} = \sum_{i \in R} \left( \frac{\pi}{\sum_{i \in R} \pi} \right) I_{h}^{m,a} \]

where \( \sum_{i \in R} \pi \) is equal to the share of resident population in the provincial capital \( i \) of region R on the total resident population of the region; then the regional indices of the representative item h are aggregated to compile the national index, in the following way:

\[ I_{h}^{m,a} = \sum_{R=1}^{20} \left( \frac{R \pi_{h}}{\sum_{R=1}^{20} R \pi_{h}} \right) R I_{h}^{m,a} \]

\[ I_{h}^{m,a} = \frac{\sum_{R=1}^{20} R \pi_{h}}{\sum_{R=1}^{20} R \pi_{h}} \]

Where \( \sum_{R=1}^{20} R \pi_{h} \) is equal to the share of household consumption expenditure for the representative item h in the region R on the national household consumption expenditure for the same representative item.

The national overall index is calculated as weighting average of national representative item indices:

\[ I_{h}^{m,a} = \frac{\sum_{h=1}^{H} \frac{\pi_{h}}{\sum_{h=1}^{H} \pi_{h}}}{\sum_{h=1}^{H} \pi_{h}} \]
where \( \frac{\pi_h}{\sum_{h=1}^{H} \pi_h} \) corresponds to the share of household consumption for the representative item \( h \) on the overall household consumption expenditure.

**Monthly and annual average prices:** Monthly average prices are calculated using the same aggregation and weighting procedures used for the national indices. For the average price calculation, only collected data are used (imputed prices are excluded).

**Seasonally adjusted indices:** No

**Software used for calculating the CPI:** PL\SQL procedures on DB Oracle

### G: Editing and validation procedures

**Control procedures used to ensure the quality of data collected:** Price collection is completely computerised i.e. conducted entirely using ultra-mobile PCs (UMPCs) or tablet PCs with UMTS cards, which are distributed to all data collectors of MOS involved in the survey. Data collectors load data directly, every day just after collection, into the centralized database. They perform checks and editing of micro data directly in the database, with no confusing data redundancy. A continuous, on-line, real-time system for monitoring price collection activities and the quality of the data collected has been implemented. Monitoring activity is carried out using different indicators regarding outlet selection, price collection schedule and quality of collected data (temporary non-collection rate by different reasons – outlet closing, missing items etc.; replacement item rate, temporary price reduction rate taken into account for the HICP index). At first stage, data quality is monitored by MOSs. At a second stage, ISTAT carries out a complete check on the entire data-set collected both by MOSs and at central level. For some group of goods and services, such as energy, outside sources are used to monitor data.

**Control procedures used to ensure the quality of data processed:** Also in this case, the monitoring and validation activity is carried out both at territorial level by MOSs and by ISTAT. As required by law, in every municipality, index data, before to being published, are examined and validated by Municipal Commissions constituted by experts of economical bodies (Trade Unions, Trade Associations etc.). ISTAT carries out data validation, analyzing different indicators and using outside sources for some group of goods and services.

### H: Documentation and dissemination

**Timeliness of dissemination of the CPI data:** Provisional CPI data are usually published on the last working day of the reference month. The final data are published monthly according to the pre-announced release calendar (http://www.istat.it/en/files/2011/03/calendario2012-en.pdf), in general between 13 and 15 days after the end of the reference month.

**Level of detailed CPI published**

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

Restricted Access: Basic items

Separate indices published for specific population groups: Consumer Price Index for Blue- and White-collar Worker households (FOI)

Type of products for which average prices are calculated and disseminated: Monthly average prices at provincial capital level are calculated for food products, household maintenance products, products for personal care, some services (medical, catering, for personal care, in respect of personal transport equipment, transport). These data are produced by ISTAT and disseminated in “Prices and Tariffs Observatory” of the Ministry of Economic Development. National average prices are calculated for a list of products defined by Eurostat. They are provided to Eurostat which disseminates them.

Documentation

Publications and websites where indices can be found: Press release “Consumer Prices” by ISTAT is available at http:///www.dati.istat.it

Publications and websites where methodological information can be found: CPI: general aspect and survey methodology, December 2011 (only in Italian), is available on ISTAT web site http://www.istat.it/it/files/2011/07/come_si_rilevano_i_prezzi_al_consumo_2011_b2.pdf

I: Other Information

Reported by the country in 2012.

Jamaica

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Statistical Institute of Jamaica (STATIN)

Periodicity: Monthly

Price reference period: December 2006 = 100

Index reference period: December 2006 = 100
Weights reference period: 01/12/2006

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.

Population groups excluded: High income households (15%).

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;
- Mortgage repayments;
- Housing maintenance, minor repairs;
- Purchase of gifts of goods and services given to others outside the household;
- Luxury goods;
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- Life insurance premiums;
- Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
- Expenditures abroad

Consumption expenditure excludes:

- Purchase of owner-occupied housing;
- Mortgage interest;
- Major repairs, conversions and extensions to owner occupied housing;
- Financial services (including fees for financial advice, brokerage fees);
- Interest payments (excluding mortgage interest payments);
- Gambling expenditure, gross of winnings;
- Investment-related expenditures (e.g. purchase of shares/stocks);
- Occupational expenditures;
C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index measures changes in the general level of prices of consumer goods and services purchased by private households.

Definition of consumption expenditures: Payment

Classification: Each item is given a 12 digit code. The first four digits are COICOP – to the four digit level and the last eight digits are an extended CPC code.

Weights include value of consumption from own production: Yes

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

Price updating of weight reference period to the index reference period: Weights are based on an expenditure survey carried out in 2004-2005 and the reference period used for the index is 2006. The weights are adjusted to take account of the time lag between two periods.

Weights for different population groups or regions: Weights are computed for the Greater Kingston Metropolitan Area (GKMA), Other Urban Centres (OUC) and Rural Areas (RA) and from this all Jamaica weights are derived. The Statistical Institute of Jamaica (STATIN) publishes the CPI for the low to middle income groups of the population. Weights are computed for the upper income group of the population however, computation of the index number series for this income group is not completed.

D: Sample design

Sampling methods:

Localities: Judgmental sampling

Outlets: Judgmental sampling

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: Continuous (on a rotating basis)

Outlets: Continuous (on a rotating basis)
Products: At the time of conducting HES.

If sample updates are irregular indicate when last updates were introduced: Samples are updated as soon as an outlet is reported as closed or out of business. STATIN tries to maintain the localities from which prices are collected for the CPI. However, products are selected only following the conduct of a household expenditure survey.

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: The basket includes only items contributing 0.5 percent or more to the total value of expenditure. Groups and sub-groups with a percentage of less than 0.5% are eliminated and the weight redistributed to the remaining groups; and secondly, items with a percentage of less than 0.5% of a sub-group or group are also eliminated and the weight redistributed to the remaining items. The method of redistribution employs the following procedure: Sum of the weight of the item multiplied by the new sum divide by old sum

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: The specifications are tight.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 68, Outlets: 830, Price observations: 49,700

Frequency with which prices are collected: All prices are collected monthly.

Reference period for data collection: The first full week of each month

Methods of Price Collection

- Personal data collection for majority of the items.

- Telephone interviews for motor vehicles and air fares.

- Internet for utilities, telephone rates, and air fares.

- Official tariffs for utilities, fees related to motor vehicles and services related to dwellings.

Treatment of:

Discounts and sales prices: They are not taken.

Black market prices: Not collected.

Second hand purchases: Not included.

Missing or faulty prices: Missing prices are treated by carrying forward the previous month’s price observations or extrapolation by using the change of the other prices for the same item.
Period for allowing imputed missing prices: Imputation for a missing price is allowed for a period not exceeding three months.

**Disappearance of a given type or quality from the market:** In the event of the disappearance of a given type or quality from the market there is a replacement of the item or variety. The price of the new item or variety is worked into the index using the overlapping price technique or matched modelling.

**Quality differences:** The price of the new item or variety is worked into the index using the overlapping price technique or matched modelling.

**Appearance of new items:** New items are included at the time of updating the basket of goods and services, when new HBS is conducted.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** The price data are not seasonally adjusted despite the fact that fresh fruits and vegetables have a seasonal characteristic. Jamaica is a tropical island and as such there are no marked distinctions in the seasons.

**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:** There are no extreme weather conditions and as such there are no marked distinctions in the seasons. Weights are fixed.

**Method to impute the price of seasonal items:** The method used to impute price development in out-of-season periods is carrying forward the last observed price.

**Treatment of housing**

**Treatment of owner-occupied housing:** The geometric mean of the average price for the Studio, 1, 2, 3 and 4 bedroom units is used as a proxy for owner-occupied housing.

**Types of dwellings covered by the rent data:** For the rent data, the Statistical Institute of Jamaica uses a household survey and covers the rental of Studio, 1, 2, 3 and 4 bedroom units. The cost of rental for these units is collected on a monthly basis island wide. The geometric mean is used to compute the average price for each of these units.

**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:** Price indices for higher-level indices such as groups, divisions, and all items are computed by aggregating the
elementary item indices and weighting them by their relative importance in the CPI basket. The mathematical formula for calculating an aggregate index is:

\[ I_A = \frac{\sum_{i=1}^{n} I_i \times W_i}{\sum_{i=1}^{n} W_i} \]

where

- \( I_A \) is the aggregate price index for the \( n \) elementary item indices included in the aggregate,
- \( I_i \) is the price index for elementary item \( i \) in period \( t \) and
- \( W_i \) is the relative importance (expenditure share) of the elementary item index \( i \) in the CPI basket.

**Formula of aggregating regional/population group indices into national index:**
Laspeyres index formula.

**Seasonally adjusted indices:** No seasonal adjustment.

**Software used for calculating the CPI:** Microsoft Excel, RPG, Command Language and Microsoft Access

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** A detailed specification manual has been developed so as to ensure that the same item is priced every month in order to establish a true picture of price changes.

**Control procedures used to ensure the quality of data processed:** The price entered is compared with the price for the same product in the same shop in the previous month, and triggers a query where the price difference is outside pre-set percentage limits. A query is raised if the price entered exceeds a maximum or is below a minimum price for the item of which the particular product is representative. Price statisticians keep abreast of what is happening in the country so that announced price movements are adequately captured.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** The CPI is published on the 15th day after the end of the reference month. In instances where the 15th falls on a weekend the CPI is published on the following Monday.

**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), Group-level app. 40 groups, Class-level (100 classes)

**Separate indices published for specific population groups:** The low-middle income group.
Type of products for which average prices are calculated and disseminated: Average prices are not disseminated since December 2006.

Documentation

Publications and websites where indices can be found: CPI Monthly Bulletin, CPI Annual Review, Pocketbook of Statistics, Statistical Yearbook, Statistical Digest – This is published by the Bank of Jamaica (the Central Bank)


I: Other Information

Reported by the country in 2012.

Japan

A: Identification

Title of the CPI: Consumer price index

Organisation responsible: Statistics Bureau of Japan

Periodicity: Monthly

Index reference period: 2010 = 100

Weights reference period: 2010

Main uses of CPI: Indexation of wages, pensions and /or social security payment, indexation of rents, contacts and /or other payments, main inflation indicator used for monetary policy, deflate household expenditures in national accounts and macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals
Population groups excluded: One-person households, "households which manage restaurants, hotels, boarding houses or dormitories, sharing their dwellings", "households which serve meals to the boarders even though not managing boarding houses as an occupation", "households with 4 or more living-in employees", "households whose heads are absent for a long time (three months or more)” and "foreigner households".

Consumption expenditure excludes:

- Purchase of owner-occupied housing
- Social insurance premiums

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer price index (CPI) is calculated to comprehensively measure the price fluctuation of goods and services purchased by households nationwide in the time series. It reflects changes of the cost of purchasing goods and services in a fixed “market basket”, but is not designed to measure changes of the cost of living.

Classification: The Classification of Individual Consumption by Purpose (COICOP) is broadly followed. Classification systems used in Japan follows to the ILO Manual's classification of the CPI. The Ten Major CPI Groups approximate the Eight Major Groups of the 1993 SNA (Food, Housing, Fuel, Light & water charges, Furniture and household utensils, Clothes & footwear, Medical care, Transportation and communication, Education, Reading & recreation, Miscellaneous and General).

Sources of weights: Household expenditure surveys

Frequency of weight updates: Every 3-5 years

D: Sample design

Sampling methods:

Localities: Random multi stage sampling

Outlets: Judgmental sampling

Products: Judgemental sampling

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:

Item selection: The enumerator is responsible for the selection of the particular variety and monitoring the same variety over time. The specifications selected are reviewed as needed on the basis of ad hoc surveys. The items are appropriately selected on the basis of the importance of each item in relation to total consumption expenditures, how representative they are of price movements of the product class, and the feasibility of price data collection. In principle, items are selected only from those accounting for more than 1/10000 of household consumption expenditures - such items account for an estimated 85 to 90 percent
of total household expenditure (2010 FIES, to date). In principle, 588 items are to be priced in each of 167 selected municipalities.

Outlet selection: The selection of shopping district is with probability proportionate to (population) size while the selection of outlets is judgmental, by the enumerators, on the basis of the highest-volume seller, irrespective of outlet type. No sampling frame of outlets is available. No stratification is done by outlet type.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 167 municipalities, Outlets: 27,000, Price observations: 244,000

Frequency with which prices are collected: Prices are collected monthly.

Reference period for data collection: Prices are, for the large part, surveyed on the Wednesday, Thursday, and Friday of the week that includes the 12th of each month. Prices for perishable items, including fresh fruit, vegetables, and fish, are surveyed over three successive days, three times a month - that is, during the week including the 5th, 12th, or 22nd of each month, in each case on the Wednesday, Thursday, and Friday.

Methods of Price Collection

– Personal data collection
– Scanner data for personal computers, digital cameras and prices on all products sold in major electronic appliance shops.
– Central price collection for railway fares, electricity and tobacco

Treatment of:

Discounts and sales prices: Temporary bargain (within a week) prices, prices for instalment sales and abnormal prices due to disasters are excluded for the CPI.

Second hand purchases: Prices of second hand goods are excluded from the Index.

Missing or faulty prices: For temporarily unavailable, seasonal, perishable items, such as fresh fruit and fish, the overall weight is held fixed at the annual level. The missing items are excluded from long-run price comparisons between the 2010 mean reference price and the price in the current period. However, there is an implicit imputation of the price change of the missing items - one based on the long-run price change of existing items.

Disappearance of a given type or quality from the market: For a permanently missing, or "old" item, a replacement "new" item is found that matches the old item's specification. The replacement item is usually found in the same outlet, but exceptionally a replacement at the same level of specifications in another outlet may be used (except in the case of services). If the price of the new item in the previous period is similar to that of the old one in the previous period, the replacement is considered to be comparable and a direct comparison made. If the new item is not similar to the old one, the new item's price is compared with the old item's price using the overlap method. The outlet manager is asked for the price of the
new item in the previous overlap period, and the price change of the new item is linked to the price of the old item in the overlap period.

**Quality differences:** Overlap and explicit quality adjustment methods are used for quality differences. The option cost method is applied to automobiles, quantity adjustments as applicable, and hedonic indices for digital cameras and personal computers.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** For fresh fish and shellfish, fresh vegetables and fresh fruits, monthly variable weights are used for compiling the index. For seasonal goods excluding fresh foods, the average prices of the month when the survey is conducted are substituted for the prices of the month when the survey is not conducted.

**Seasonal food items:** Seasonal food items are included in the CPI using variable weights approach: the weights vary over the year.

**Treatment of housing**

**Treatment of owner-occupied housing:** Owner occupied housing is incorporated in the index through the imputed rent approach. Data on owner-occupied housing from the 2004 NSFIE are used to impute owner-occupied rents.

**Types of dwellings covered by the rent data:** A House Rents Survey forms part of the "RPS system" and surveys approximately 26,000 private and public rents per month and their floor space. Sampling of the cities, towns, and villages surveyed is with probability proportional to size based on the 2005 population census data. An estimated regression equation relates rent to dwelling characteristics. Deductions for the cost of repairs and maintenance and land rent are made to avoid double-counting such costs, which are included in rents but excluded from the cost of owner-occupied housing. Approximately 1,000 prices are collected each month from 530 (public and private) hotels by the Hotel Charges Survey, which is also part of the RPS system. The PSO conducts ad hoc surveys, when necessary, for collecting information to support the main compilation (for example, to identify new products and provide source data for weights and prices).

**F: Computation**

**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index)

**Formula to aggregate elementary indices to higher-level indices:** A Laspeyres index using relative expenditure shares as weights is used at the higher-level of aggregation. The formula is given as follows:

\[ I_t = \frac{\sum_{i=1}^{n} p_{t,i} q_{0,i}}{p_{0,i} q_{0,i}} \times 100 = \frac{\sum_{i=1}^{n} \frac{p_{t,i}}{p_{0,i}} w_{0,i}}{\sum_{i=1}^{n} w_{0,i}} \times 100 \]
Where \( I \): index, \( p \): price, \( q \): quantity, \( w \): weight (=pq), \( i \): item 0: base period, \( t \): observation period

**Seasonally adjusted indices:** Seasonally adjusted indexes are computed to see price trends in the economy. The series include "all items", "all items less fresh food", "all items less imputed rent", "all items less imputed rent and fresh food", "all items less food (less alcoholic beverages) and energy", "goods", "semi-durable goods", and "goods, less fresh food". The indices are calculated by using the US Census method (X-12-ARIMA (X-11 default)).

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** Tight specifications are given to price collectors. Price collectors enter data into tablet PCs, which automatically displays the previous month's price and the price change. If the change falls outside specified price bands, the price collector has to give a reason. Excessive price changes and their reasons are checked at the SBJ and referred back to an official of the prefecture government for further checking to resolve the query. If a specification is found to be generally unavailable, a change is made to the specification used, to the benefit of the index.

**Control procedures used to ensure the quality of data processed:** The collected prices are reviewed using computer edits to identify suspicious data. The field supervisors periodically review the work of price collectors to ensure that collection procedures are understood and followed. Specified ranges are set for "acceptable" prices, and these appropriately differ by product group. When prices are outside specified ranges, the cause is investigated. Reasons are given by price collectors, and their veracity has to be considered by prefecture government officials, and if deemed necessary by the PSO. The PSO staff are specialists in particular product areas and check trade magazines, telephone associations, and manufacturers for contextual information.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** In principle, the CPI is released at 8:30 A.M. on Friday of the week including the 26th of each month. The index figures of the preceding month for the whole country and the preliminary figures of the current month for the Ku-area of Tokyo are released. The average index figures for the calendar year and fiscal year are released when the monthly figures for December and March.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions*)

**Online:** All items CPI, Division-level (12 Divisions*)

*The number of divisions/groups/classes are provided as an example and are based on the COCIOP classification.*

**Documentation**

**Publications and websites where indices can be found:** After release the CPI data are available from a hardcopy summary report (in Japanese only) and on the Internet website
Publications and websites where methodological information can be found:

I: Other Information

Reported by the ILO in 2013

Jordan

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Division of Prices and Cost of Living, Statistics Office

Periodicity: Monthly

Price reference period: 2006 = 100

Index reference period: 2006 = 100

Weights reference period: 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.

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;
- Purchase of owner-occupied housing;
- Mortgage repayments;
- Mortgage interest;
- Housing maintenance, minor repairs;
- 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);
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- Life insurance premiums;
- Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
- 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

Consumption expenditure excludes:

- Gambling expenditure, gross of winnings;
- Second hand goods purchased

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The main objective the CPI is to measure the change in prices.

Definition of consumption expenditures: The weights are based on consumption expenditures.

Classification: National classification (broadly comparable to COICOP)

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 reference year is the same as the index reference period, there is therefore no need to price update weights.

Weights for different population groups or regions: Weights for each governorate are compiled.

D: Sample design

Sampling methods:

Localities: Sampling with probability proportional to size (PPS)

Outlets: Sampling with probability proportional to size (PPS)

Products: All goods available in the store and sample products listed

Frequency of sample updates:

Localities: Continuous (on a rotating basis)

Outlets: Continuous (on a rotating basis)

Products: Continuous (on a rotating basis)

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Sampling of the localities is based on the population size, and the same basket is used for all governorates.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: In consultation with the central office.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 12, Outlets: 3,786.

Frequency with which prices are collected: Fruits, vegetables, fish, meats, poultry, gold, eggs – weekly; rents – biannual and other goods – monthly.

Methods of Price Collection

- Personal data collection for all items.

Treatment of:
Discounts and sales prices: They are used in the calculation of the index.

Black market prices: Not collected.

Second hand purchases: Not included.

Missing or faulty prices: Prices are reviewed, and if there is a missing price, price collectors are contacted to resolve the problem.

Period for allowing imputed missing prices: The missing prices are replaced as soon as possible

Disappearance of a given type or quality from the market: If an item becomes permanently unavailable, it is replaced by another commodity.

Quality differences: If there are quality changes, the base period price is also changed.

Appearance of new items: New items are included in the basket at the time of weights updates.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Fresh fruits and vegetables are the only seasonal items, and are re-weighted.

Seasonal food items: Seasonal food items are included in the CPI using variable weights approach: the weights vary over the year.

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: The method used to impute price development in out-of-season periods is carrying forward the last observed price.

Treatment of housing

Treatment of owner-occupied housing: Owner occupiers are asked about the rental value of their home in the expenditure survey, this kind and rented units carry the same weight.

Types of dwellings covered by the rent data: Rents on houses and apartments are observed every six month (June and December).

F: Computation

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

Formula to aggregate elementary indices to higher-level indices:
\[ R.L.I.N = \sum \frac{P_{1i}}{P_{0i}} \times W_{0i} \]

**Monthly and annual average prices:** Simple average is used for calculating the regional average prices, but weighted average is used for calculating the national prices (geographical weights are used).

**Seasonally adjusted indices:** Weights of seasonal goods, especially vegetables and fruits are re-distributed within the group and then calculate the index number for the group.

**Software used for calculating the CPI:** Microsoft Excel

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** Field follow-ups are made to validate the data. In addition prices are compared between all governorates.

**Control procedures used to ensure the quality of data processed:** Published data is reviewed and compared with the previous month data.

**H: Documentation and dissemination**

**Level of detailed CPI published**

**Paper publication:** All items CPI

**Online:** All items CPI

**Type of products for which average prices are calculated and disseminated:** Average prices are calculated and used for the calculation of the index but not disseminated.

**Documentation**

**Publications and websites where indices can be found:** [www.dos.gov.jo](http://www.dos.gov.jo)

**I: Other Information**

Reported by the country in 2012.

**Kazakhstan**

**A: Identification**

**Title of the CPI:** Consumer Price Index

**Organisation responsible:** Republic of Kazakhstan Statistics Agency
**Peri**odici**ty**: Monthly

**Index reference period**: December of previous year = 100

**Weights reference period**: Previous year (12 months)

**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, macroeconomic modelling and other analytic uses.

**B: CPI Coverage**

**Geographical Coverage**

*Weights*: Nation-wide

*Price collection*: Nation-wide

*Population coverage*: Resident households of nationals.

**Consumption expenditure excludes:**

- Foods produced for own final consumption;
- Other goods produced for own final consumption;
- Services produced for own final consumption

**C: Concepts, definitions, classifications and weights**

**Definition of the CPI and its objectives**: The indicator measures changes in a fixed-market basket of goods and services of constant quantity and quality acquired by the population for individual consumption.

**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**: No, not needed.

**Weights for different population groups or regions**: Weights are determined by the region and the aggregation is done over the regions.

**D: Sample design**

**Sampling methods**: 
Localities: Judgmental sampling

Outlets: Judgmental sampling

Products: Judgmental sampling

Frequency of sample updates:

Outlets: Continuous (on a rotating basis)

Products: Continuous (on a rotating basis)

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Outlet selection: The sample must represent enterprises with different business conditions and include outlets that regularly produce sample items (services).

Item selection: The process for selecting representative items in the basket consists of a targeted (typical) choice aimed at achieving the best representation by including the most characteristic varieties representing a product group and having the largest share in the consumption.

Sample sizes: The number of base outlets is selected in such a way that for each item of goods and services, prices are observed in no less than eight outlets.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Specifications are detailed and include: type of material, composition of raw material, enterprise (country) of origin, firm, sort, brand, quantity, name, article and other characteristics that enable it to be distinguished from other varieties.

E: Data Collection

Frequency with which prices are collected: The frequency of data collection is weekly – for goods and services acquired on a daily basis (e.g. food staples, household chemicals, services requiring mandatory payment, etc.) and monthly – for goods acquired occasionally.

Methods of Price Collection

- Personal data collection for most of the retail prices and services.

- Official tariffs

Treatment of:

Missing or faulty prices: Missing prices are imputed by adjusting the last recorded prices for the changes in prices of items in the same group. The last recorded price is also used.
Disappearance of a given type or quality from the market: The replacement item should be very similar to initially selected outlet. The replacement outlet should be similar in form of ownership, location and sales conditions to the initially selected outlet.

Quality differences: When a product (or service) is no longer available, a similar type of product (service) with similar quality characteristics is selected and the prices are adjusted. When the quality of an item (service) has changed, a coefficient for recalculation of the new price is determined.

Appearance of new items: New products and services are introduced at the same time with the weights updates.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: When seasonal items (services) are temporarily unavailable, the last recorded price is carried forward or a price is imputed based on the level of change in prices of items in the same group.

Treatment of housing

Treatment of owner-occupied housing: Included are rents and maintenance of the residence.

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: CPI is obtained by using the modified Laspeyres formula.

Seasonally adjusted indices: There is a special procedure for recording seasonal items when they are temporarily missing from the market.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Recorded prices are verified for completeness of coverage, reliability and comparability over time and prices that significantly deviate from the general trend of change are checked.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI data is released two to three days after the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)
Online: All items CPI, Division-level (12 Divisions)

Documentation

Publications and websites where indices can be found: The news release (“On the Inflation Rate in the Republic of Kazakhstan”) is available on request in Kazakhstani and Russian and free of charge; The report (“Socioeconomic Position of the Republic of Kazakhstan”) (in Kazakhstani and Russian), is also available for a fee; The annual analytical report (“On Inflation and Prices in the Republic of Kazakhstan’s Consumer Market”) is available in Russian upon request; Internet website: www.stat.kz

Publications and websites where methodological information can be found: Methodological explanations can be found at http://www.eng.stat.kz/digital/Prices%20and%20tariffs/Pages/default.aspx

I: Other Information

Completed by ILO in 2013.

Kenya

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Kenya National Bureau of Statistics (KNBS)

Periodicity: Monthly

Index reference period: February 2009 = 100


Main uses of CPI: Indexation of wages, pensions and/or social security payment, main inflation used for monetary policy, deflate household expenditure in national accounts, macroeconomic modelling and other analytics uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident household of nationals
Consumption expenditure excludes:
- Foods produced from own final consumption
- Other goods produced for own final consumption
- Second hand goods purchased
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross claims
- Life insurance premiums
- Gambling expenditure, gross winnings
- Others: Loans, indirect taxes

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index (CPI) is a key macroeconomic indicator used to monitor price movements and how they affect policy decisions. It is estimated as the weighted aggregate change in retail prices paid by consumers for a given basket of goods and services. Price changes are measured by re-pricing the same basket of goods and services at regular intervals, and comparing aggregate costs with the costs of the same basket in a selected base period.

Classification: Classification of Individual Consumption by purpose (COICOP)

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys

Frequency of weight updates: Above 5 years

Weights for different population groups or regions: Regional weights based on proportion of households in the urban centres of the province are computed. In addition, weights for the lower income group, middle income group and upper income groups are computed in Nairobi province.

D: Sample design

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 25 price collection zones in 13 urban centres,

Frequency with which prices are collected: Monthly

Methods of Price Collection:
- Personal data collection
- Central price collection for consumer items like electricity tariffs, post and telecommunication services.

Treatment of:
Second hand purchases: Prices of second hand purchases are excluded from the CPI.

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: Aggregation of elementary indices to higher indices is done by the modified Laspeyres index formula defined and computed as

\[ I_t = \sum_{i=1}^{n} W_{0 i} \cdot \left[ \frac{p_{t i}}{p_{t0}} \right] = \sum_{i=1}^{n} W_{t-1,i} \cdot \frac{p_{t,i}}{p_{t-1,i}} \]

where \( I_t \) is the index at time \( t \), \( p_{t i} \) is the price of the \( i^{th} \) commodity at time \( t \), \( p_{t0} \) is its price at the base period and \( W_{0 i} \) is its weight.

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI are compiled and disseminated within a week after the end of each month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions*)

Online: All items CPI, Division-level (12 Divisions*)

Documentation

Publications and websites where indices can be found: Information on monthly CPI can be found at [http://www.knbs.or.ke/consumerpriceindex.php](http://www.knbs.or.ke/consumerpriceindex.php)

Publications and websites where methodological information can be found: Methodological information can be found in the publication “The New Consumer Price Index (CPI) Users’ Guide” available at [http://www.knbs.or.ke/consumerpriceindex.php](http://www.knbs.or.ke/consumerpriceindex.php)

I: Other Information

Reported by the ILO in 2013.

Korea
A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Statistics Korea

Periodicity: Monthly

Index reference period: 2010 = 100

Weights reference period: 2010

Main uses of CPI: Main inflation indicator used for monetary policy, deflate household expenditures in national accounts and computation of purchasing power of households.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Urban areas

Population coverage: Resident households of nationals.

Population groups excluded: Excludes farming and fishery households.

Consumption expenditure excludes:

- Interest payments (excluding mortgage interest payments);
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: CPI is a measure of the average change in prices for a fixed-market basket of goods and services of constant quantity and quality purchased by consumers.

Classification: COICOP (Classification of individual consumption by purpose) with 12 major groups

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, not needed.
D: Sample design

Sampling methods:

*Outlets*: Judgmental sampling

*Products*: Judgmental sampling

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Outlet selection: From the market composition in each city representative outlets are identified and samples of 25,000 outlets where consumers normally shop are selected.

Item selection is based on the item relative importance in the HIES; items should account for more than 1/10,000 of total expenditures in order to be included in the basket.

Sample sizes: About 100,000 prices are collected from 25,000 outlets each month.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Generally, specifications provide detailed descriptions of the characteristics of the item surveyed.

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 25,000, Price observations: 100,000

Frequency with which prices are collected: Agricultural, fishery, livestock – 3 times a month; Industrial products – 2 times per month; Services and other items: 2 times per month; Oils and gold rings: 3 times a month.

Reference period for data collection: For livestock, agricultural and fisheries products - Prices are collected (any one weekday of the week including the 5th, 14th, 23rd of the month); Services and other commodities: Two weekdays including the 23rd of the month; Oils and gold rings – One weekday of the week including the 5th, 14th and 23rd of the month.

Methods of Price Collection

- Personal data collection

- Official tariffs

- Labor force surveys for rent.

Treatment of:

Discounts and sales prices: Excluded in price collection
Second hand purchases: Excluded in price collection

Missing or faulty prices: When a price observation is temporarily unavailable in a given month, its price is imputed by the price movements of similar products of the same item in the same geographic area.

Disappearance of a given type or quality from the market: When a specific variety is permanently unavailable in an outlet, another product in the same outlet that most closely meets the specifications of the previous variety is selected as a replacement.

Quality differences: The KOSTAT utilizes an appropriate method among a variety of quality adjustment methods according to items' characteristics. For minor quality differences such as changes in packaging, style, or superficial features, a quantity adjustment or direct adjustment for the price difference is applied. When the quality difference is significant, the splicing (overlap) method is used. Expert judgment, production cost/option cost, hedonic method are applied in quality adjustment.

Appearance of new items: New items are introduced at the time weights are updated once every five years.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: For items such as fresh fish, fruit, and vegetables that are not available on the market during the off-season, the last available prices (monthly prices) are used to calculate the index until new prices are available.

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.

Method to impute the price of seasonal items: The method used to impute price development in out-of-season periods is carrying forward the last observed price.

Treatment of housing

Treatment of owner-occupied housing: Not included in the CPI main index but provided as a complementary index.

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: Standard Laspeyres aggregation is used; each index is multiplied by its relative importance in the 2010 base reference period and aggregated to higher-levels.
Seasonally adjusted indices: Indices for all-items, agricultural and marine products aggregates are seasonally adjusted and they are available from January 2006.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Interviewers verify all price changes and are required to provide explanations for unusual movements. Prices are edited for reasonableness using detailed computer edits at the KOSTAT's head office. Compilers check every item index to ensure that its movement is consistent with information about retail markets.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI data is released no later than the 5th day of the month following the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation

Publications and websites where indices can be found: The press release “Consumer Price Index Trends” publishes summary tables of the CPI for the reference month. It’s available in Korean, KOSTAT, the “Consumer Price Index” Monthly (Korean (with English table headings)), published approximately one week after the press release. This is available for a fee, “Annual Report on the Consumer Price Index” (Korean (with English table headings)), also available for a fee. KOSTAT; Internet website: http://kosis.kr for detailed data on the CPI.

Publications and websites where methodological information can be found: A detailed methodological documentation is published in the “Annual Report on the Consumer Price Index”.

I: Other Information

Completed by ILO in 2013.

Kuwait

A: Identification

Title of the CPI: Consumer Price Index
Organisation responsible: Ministry of Planning (Central Statistical Office)

Periodicity: Monthly

Index reference period: 2007 = 100


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

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Classification: COICOP (Classification of individual consumption by purpose)

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

Price updating of weight reference period to the index reference period: No, not needed.

D: Sample design

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 455

Frequency with which prices are collected: Data for most items are collected monthly, except for services, which are collected every 3 months, and rents, which are collected annually. The annual rent data are interpolated into the monthly data at a constant rate of increase.

Methods of Price Collection

- Personal data collection

- Official tariffs
Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The consumer price index is disseminated in the “Consumer Price Index Numbers” about 1 month following the end of the reference period.

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

Documentation

Publications and websites where indices can be found: There is a monthly news release about CPI; CSB publishes a monthly bulletin of "Consumer Price Index Numbers", in Arabic and English; CSB "Annual Consumer Price Index", is also available in Arabic and English; Internet website: http://cso.gov.kw

Publications and websites where methodological information can be found: Brief methodology in Arabic can be found at http://cso.gov.kw

I: Other Information

Completed by ILO in 2013.

Kyrgyz Republic

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: National Statistical Committee of the Kyrgyz Republic

Periodicity: Monthly

Index reference period: 2010 = 100

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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Population groups excluded: Institutional households.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The CPI is a measure of the change in the overall level of prices for goods and services in a fixed consumer basket purchased by population for non-product consumption.

Classification: COICOP (Classification of individual consumption by purpose) with 12 main groups.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Annual

Price updating of weight reference period to the index reference period: Weights are price updated.

D: Sample design

Sampling methods:

Localities: Judgmental sampling

Outlets: Judgmental sampling

Products: Judgmental sampling

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Item selection is based on the volume of purchase.

Sample size: Monthly collection is up to 45,000 quotes.
**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Outlets: 1,496, Price observations: 45,000

**Frequency with which prices are collected:** The frequency of price collection is weekly.

**Reference period for data collection:** Prices are collected weekly before the 25th of each month.

**Methods of Price Collection**

- Personal data collection for most of the items.

**Treatment of:**

**Missing or faulty prices:** Missing prices are imputed using the price movement of an equivalent good or group.

**Disappearance of a given type or quality from the market:** Goods and services that become permanently unavailable are subject to substitution. Substitution items are usually chosen at the end of the year.

**Quality differences:** The coverage method is used in the adjustment for quality differences.

**Appearance of new items:** New items are normally presented at the time of weights updates.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** For seasonal items, if the good is temporality absent (out of season), the last observed price is applied or the price movement of an equivalent good is used.

**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.

**Method to impute the price of seasonal items:** The method used to impute price development in out-of-season periods is carrying forward the last observed price.

**Treatment of housing**

**F: Computation**

**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index) (Chained form)

**Formula to aggregate elementary indices to higher-level indices:** The Laspeyres formula is used to combine elementary indices. When constructing an index the average value for the
previous year is equal to 100 and the current prices are taken as a ratio of the prices for that year.

Seasonally adjusted indices: No adjustments are made for seasonal fluctuations.

**G: Editing and validation procedures**

Control procedures used to ensure the quality of data collected: Supervisors periodically perform an inspection of price collection.

Control procedures used to ensure the quality of data processed: Automated and manual inspections are performed in various structures and periods as the index is compiled. Specialists inspect individual indices of goods and groups.

**H: Documentation and dissemination**

Timeliness of dissemination of the CPI data: CPI data is disseminated 2 weeks after the reference period.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation


Publications and websites where methodological information can be found: A brief description of sources and methods is provided in the regular NSC publications “Socioeconomic Development of the Kyrgyz Republic”, “Kyrgyzstan in Numbers”, “Methodological Guidelines for Statistics”, and the topical publication “Price Indices of the Kyrgyz Republic” and also in Methodological Provisions of the order on Supervision over Consumer Prices and CPI Calculation (2007).

**I: Other Information**

Completed by ILO in 2013.
Latvia

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Central Statistical Bureau of Latvia

Periodicity: Monthly

Price reference period: December 2011 = 100

Index reference period: 2005 = 100

Weights reference period: 2012 CPI calculations are based on household consumption expenditure in the period from the 4th quarter of 2010 to the 3rd quarter of 2011 inclusive. The weights are price–updated to December 2011.

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: Urban areas

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

Consumption expenditure includes:

- Food consumed away from home;
- Housing maintenance, minor repairs;
- Second hand goods purchased (second hand motor cars 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;
- Expenditures abroad

Consumption expenditure excludes:
C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The consumer price index reflects changes in the prices of consumer goods and services in a specified period of time. The CPI measures changes of the average price level for goods and services that households consume (the fixed consumer basket). This indicator is used as a principal measure of inflation in Latvia.

Definition of consumption expenditures: Weight derivation is based on the final monetary consumption expenditure of the whole household sector of the corresponding geographical entity. Consumption is defined in the terms of ‘net acquisition’.

Classification: COICOP (Classification of individual consumption by purpose)

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys, consumer surveys, information from organizations, shops and enterprises.

Frequency of weight updates: Annual

Price updating of weight reference period to the index reference period: The weights are price updated to December of previous year annually.

Weights for different population groups or regions: Population weights are compiled and used for calculation of the national average prices.

D: Sample design

Sampling methods:
Localities: Sampling with probability proportional to size (PPS)

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: The sample of localities remains the same.

Outlets: Annual, Continuous (on a rotating basis)

Products: Annual

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: The sample size is based on the importance, price variations and homogeneity of specific items. The outlets, from which prices are collected, are chosen to represent the existing trade and services network and they are based on three main criteria: i) popularity among consumers, ii) significant turnover from consumer sales and iii) availability of goods and services included in the CPI basket.

The variety is selected by the price collector with-in the framework of pre-defined product specification and following the guidelines, provided by the central office. The selected variety is then checked and confirmed by the central staff.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 12, Outlets: 2,000, Price observations: 19,000

Frequency with which prices are collected: Prices for all goods and services are collected monthly.

Reference period for data collection: Prices of all goods and services, except fuel, are recorded once every month from the 4th – 20th. Fuel prices are recorded weekly from 1st – 23rd of the reference month.

Methods of Price Collection

- Personal data collection for food, alcoholic beverages and tobacco, clothing and footwear, housing, furnishing, recreation, culture and restaurants.

- Telephone interviews for health, transport, recreation, culture, hotels and restaurants

- Internet for housing, transport, communication, recreation, culture, education and hotels.

- Official tariffs for housing.
Treatment of:

Discounts and sales prices: Included if not discriminatory.

Black market prices: Partly taken into account for certain services, e.g. minor repairs and maintenance, babysitting etc.

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

Missing or faulty prices: Extrapolation by using the change of other prices for the same item.

Period for allowing imputed missing prices: Imputation for a missing price is allowed for a period of 2 months after which a replacement is selected.

Disappearance of a given type or quality from the market: A product is replaced with another similar product or service which is representative and can satisfy the same needs.

Quality differences: Direct price comparison, Option pricing (Supported) judgmental quality adjustment, Bridged overlap quantity adjustment are the methods used to quality adjustment.

Appearance of new items: New items are introduced during the annual CPI sample update.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Items with seasonal character: fresh fruits and vegetables, clothes and footwear, some sports and recreational goods and services.

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: According to rules stated in the HICP Regulation No 330/2009.

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: Rent data is collected monthly and includes municipal (social) and free market rents; new and continuous contracts. Social rents are obtained from administrative data sources, while free market new contracts are from advertisements and free market old contracts from the labour market survey.
F: Computation

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

Formula to aggregate elementary indices to higher-level indices: Laspeyres-type formula.

Monthly and annual average prices: National average prices are calculated using weighted arithmetic mean.

Seasonally adjusted indices: No

Software used for calculating the CPI: Microsoft Access 2000

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Data validation is first done at the time the data are entered into database by price collectors. A number of logical and arithmetical validation rules allow avoiding misspelling errors. Later on spatial and historical dimensions of the prices and price movements have been examined in validation process in order to detect any unusual price development, which then is subject of further investigation. Central unit staff members constantly review the indices at elementary and aggregate level to check whether the price movements are in line with market information. The data processing system routinely identifies those sub-indices with a significant contribution to the total index, which allows these to be crosschecked for possible errors. It also quickly identifies large individual price changes.

Control procedures used to ensure the quality of data processed: CPI is internally coherent. Higher-level aggregations are derived from detailed indices according to well-defined procedures.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI data is disseminated on the 6th working day of the month following 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) and Average prices

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

Separate indices published for specific population groups: No

Type of products for which average prices are calculated and disseminated: Food products, alcoholic beverages, tobacco, fuels and some services.
Lesotho

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Ministry of Finance and Bureau of Statistics.

Periodicity: Monthly

Index reference period: March 2010 = 100


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 and computation of purchasing power of households.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Consumption expenditure includes:

- Housing maintenance, minor repairs;
- Financial services (including fees for financial advice, brokerage fees);
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The consumer price index is a measure of the change in the cost of a fixed basket of goods and services purchased by the private consumer, and it is the official measure of inflation in the country.

Classification: COICOP (Classification of individual consumption by purpose) with 12 divisions.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Every 3-5 years

D: Sample design

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 780, Price observations: 15,000

Frequency with which prices are collected: Food and non-food items – monthly; Prices for water, electricity and telephone charges are collected on annual basis; Government health centers are visited once when there is a change in hospital fees; Schools are also visited once at the beginning of the year.

Reference period for data collection: The reference period for data collection on food and non-food items is the first week of every month while for water, electricity and telephone charges is January every year.

Methods of Price Collection

- Personal data collection

- Official tariffs

Treatment of:

Missing or faulty prices: The temporarily missing observation is imputed using the growth rate of the same item obtained from those outlets where the item is available.

Disappearance of a given type or quality from the market: Replacement is done for items which are permanently unavailable from the market. Replacement is made considering the item brands where possible, if not available; the weights are reallocated among the existing items.

Treatment of seasonal items and seasonality
Treatment of housing

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: The modified Laspeyres index formula is used to aggregate the elementary indices into higher-level indices.

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The monthly CPI is released on the 20th day of the month following 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

Documentation

Publications and websites where indices can be found: BOS CPI Monthly Report available at http://www.bos.gov.ls/

Publications and websites where methodological information can be found: http://www.bos.gov.ls/

I: Other Information

Completed by ILO in 2013.

Liberia

A: Identification

Title of the CPI: Monrovia Consumer Price Index

Organisation responsible: Department of Statistics

Periodicity: Monthly

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

**B: CPI Coverage**

**Geographical Coverage**

_Weights:_ Main city (can include surrounding areas)

_Price collection:_ Main city (can include surrounding areas)

**Population coverage:** Resident households of nationals.

**C: Concepts, definitions, classifications and weights**

**Definition of the CPI and its objectives:** The Monrovia Consumer Price Index (MCPI) measures the changing cost of a fixed basket of goods and services purchased by households composed of two or more persons.

**Classification:** COICOP (Classification of individual consumption by purpose)

**Sources of weights:** Household expenditure surveys.

**Frequency of weight updates:** Above 5 years

**D: Sample design**

**E: Data Collection**

**Frequency with which prices are collected:** Prices of food items and non-food items are collected monthly.

**Reference period for data collection:** Prices for food items are collected three consecutive days during the first and second week of the month.

**Methods of Price Collection**

- Personal data collection

**Treatment of seasonal items and seasonality**

**Treatment of housing**

**Treatment of owner-occupied housing:** The index does not incorporate the imputed rents of owner-occupied dwellings.

**F: Computation**
**G: Editing and validation procedures**

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** The monthly MCPI is released 2 weeks after the reference period.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**

**Publications and websites where indices can be found:** Monrovia Consumer Price Index (English) from LISGIS; Statistical Bulletin and Economic Survey (English) from LISGIS.

**Publications and websites where methodological information can be found:** Monrovia Consumer Price Index Survey: Methods and Procedures”, December 1982.

**I: Other Information**

Completed by ILO in 2013.

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**Lithuania**

**A: Identification**

**Title of the CPI:** Consumer Price Index

**Organisation responsible:** Lithuanian Department of Statistics (Statistics Lithuania)

**Periodicity:** Monthly

**Price reference period:** 2005 = 100

**Index reference period:** 2005 = 100

**Weights reference period:** 2008 Household Budget Survey (HBS)

**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, macroeconomic modelling and other analytic uses.
B: CPI Coverage

Geographical Coverage

*Weights*: Nation-wide

*Price collection*: Nation-wide

*Population coverage*: Resident households of nationals.

*Population groups excluded*: Institutional households other than persons living in care institutions for the elderly and disabled adults (0.3%).

**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 cars only);
- Financial services (including fees for financial advice, brokerage fees);
- Interest payments (excluding mortgage interest payments);
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- 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;
- Luxury goods;
- Life insurance premiums;
- Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
- 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:** CPI is a relative indicator reflecting the overall change in prices for consumer goods and services purchased by households to satisfy their consumption needs over a certain period of time. Its objective is to measure the inflation rate in the country and estimate the country’s macroeconomic indicators at constant prices.

**Definition of consumption expenditures:** Consumption expenditure is defined as the value of goods and services acquired by households during a year to satisfy consumption needs. Goods and services purchased for production, profit and capital formation are not included. The acquisition approach is used.

**Classification:** COICOP (Classification of individual consumption by purpose) at 4-digit level

**Weights include value of consumption from own production:** No

**Sources of weights:** Household expenditure surveys, domestic trade, transport and services, energy statistics and information from other enterprises.

**Frequency of weight updates:** Annual

**Price updating of weight reference period to the index reference period:** The weights from the weight reference period are not adjusted to the index reference period but they are price updated to the price reference period (December of the previous year) using respective price indices. Annual chain linking method is used for the CPI. The critical weights are reviewed and adjusted using most recent statistical data (domestic trade, transport and services, energy statistics) as well as the information from other enterprises. Data for the weights reference period are updated to December of the previous year.

**Weights for different population groups or regions:** Each territorial unit in which prices are surveyed is attributed a certain zone of the country. A specific weight of the population of each zone in the total population of the country is determined. A long-term price ratio at the national level is calculated as a weighted arithmetic mean of long-term price ratios of territorial units, using population weights.

**D: Sample design**

**Sampling methods:**

*Localities:* Judgmental sampling

*Outlets:* Judgmental sampling

*Products:* Judgmental sampling

**Frequency of sample updates:**

*Localities:* The sample of localities remains the same and updated when needed.

*Outlets:* Annual
If sample updates are irregular indicate when last updates were introduced: 2006

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Localities (territorial units) are selected based on the number of population, administrative division of the country, geographical location, transport, communication, the number and turnover of trade and service enterprises. Selected territorial units (10 counties and 8 regional centres out of 60 municipalities) represent the whole country. There is no strict stratification but prices are collected in small and medium towns and 5 big cities containing a population from about 6000 (in small towns) to 540000 (in big cities) inhabitants.

Outlets are selected based on the retail turnover, revenues from the provision of services to the population, geographical location, specialisation, and popularity. Outlets of all forms of ownership, types, sizes, different specialization are selected. 8–10 outlets are selected in major cities, 6–8 in medium-sized towns, 4–6 in small towns. In rural areas, 10 outlets (one per county) are selected to collect prices for food, non-alcoholic and alcoholic beverages and tobacco.

Representative products are selected based on their popularity. The main criteria to determine the list of representative products is as follows: i) share of a product in the total monetary consumption expenditure, the relative share of expenditure for the product in total household monetary consumption expenditure makes up not less than 0.01 per cent; ii) continuous availability in the market, the products have to be available on the market for a relatively long time; and iii) high demand among consumers. In each outlet, for each representative product, one specific variety is selected on the basis of stable and significant sales.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Specific varieties of the products are selected by price collectors in collaboration with the retailers following the descriptions given in the list of representative products and on the basis of stable and significant sales.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 18, Outlets: 3,900, Price observations: 68,000

Frequency with which prices are collected: Monthly

Reference period for data collection: The main part of prices for all products is collected on 1–14 working days of the month. Every 5 days (4 days in the case of the third period) about one-third of all price quotations are collected. Every price collection period covers products belonging to all divisions of the COICOP. Additionally, prices for seasonal food products and fuel are collected on 15–19 working days.

Methods of Price Collection

- Personal data collection for most of the items.
- Mailed questionnaires for insurance services.

- Telephone interviews for selected services.

- Internet for cars, data processing equipment; package holidays, air transport, telephone services; some health, education, financial and other services.

- Official tariffs for electricity, gas, heat energy, water; rent of social dwelling, refuse and sewerage collection, postal, notary, social protection services; some transport, financial services; some other goods and services (e.g. some pharmaceuticals).

**Treatment of:**

**Discounts and sales prices:** Sales prices and other reductions available to all potential consumers are included in CPI. Special sales stock (which will normally be of lower quality or quantity) is not included.

**Black market prices:** Not collected.

**Second hand purchases:** Included for second-hand motor cars only. Net weights are used.

**Missing or faulty prices:** Missing prices are estimated by either: i) a short-term price ratio of the same product computed on the basis of the prices recorded in other outlets or territorial units, i.e. the price of the previous month is multiplied by the short-term price ratio of the reporting month; or ii) a short-term price ratio of a similar product or product group, i.e. the price of the previous month is multiplied by a short-term price ratio of the reporting month of a similar product or the short-term price ratio of a higher-level. When prices are quite stable, the previous observed price might be carried-forward. Faulty prices are corrected or estimated.

Period for allowing imputed missing prices: The price is estimated for two months only; after which, a new variety of the product is selected to replace the product variety that is no longer available. The replacement product must have similar consumption characteristics.

**Disappearance of a given type or quality from the market:** When a product disappears from the outlet shelves the price collector replaces it with the most similar product available. The price of the replaced product in the previous month is adjusted by eliminating the impact of the change in quality.

**Quality differences:** Quality adjustment methods used are: explicit (i.e. quantity adjustment, option pricing, expert judgment, hedonic) and implicit (bridged overlap). Small changes in characteristics which are not believed to influence prices are ignored and prices for the replaced products and their replacements are compared directly.

**Appearance of new items:** A list of products is updated each year. New products are added to the list, unpopular and disappearing products are deleted from the list. Prices of new products are recorded during the year aiming to have price indices for price updating and the reference price of the new product in December.

**Treatment of seasonal items and seasonality**
**Items that have a seasonal character and their treatment:** Seasonal items: fresh fruit and vegetables, clothing, footwear, tires, washer fluid for car. In the out-of-season period, prices of seasonal products are estimated by applying the minimum standards for the treatment of seasonal products in the harmonised indices of consumer prices (HICP), set in Commission Regulation (EC) No 330/2009 of 22 April 2009. Prices of seasonal products that are out-of-season are estimated using two methods i.e. counter-seasonal estimation and all-seasonal estimation. Estimation is carried out in the following ways: i) In the first month of the out-of-season period, the monthly typical price index for each seasonal product in each territorial unit is calculated. For this purpose, the long-term price index as an arithmetic mean of price indices of all months in the in-season period is obtained taking the price reference period December t–1 as an index reference period. Then, the short-term price index for the first month of the out-of-season period is calculated. ii) From the second month of the out-of-season period, the estimated monthly price index is used for each product in each territorial unit. The weighted arithmetic mean sub-index for each more detailed level than the subdivision of COICOP is calculated using long-term price indices (with December t–1) and expenditure weights of products. The expenditure weights of products used for the sub-index calculation in each territorial unit are the same as those used for the calculation of the total CPI. Depending on the method – counter-seasonal estimation or all-seasonal estimation – the price sub-index is calculated on the basis of prices for all available seasonal products that are in-season in the same sub-index or for all available products in the same sub-index. To obtain the price index for estimation, only prices for products available in the current and previous months are used; iii) In the first month of the new in-season period, available prices are observed by price collectors and the reporting month price for a product-offer in each outlet is compared with the estimated price of the previous month. The same price index is used for the estimation of prices for product-offers in the territorial unit’s outlets. However, the price indices for each territorial unit vary.

**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 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:** Rent data includes two types of dwellings i.e. social housing and private housing. Private housing is separated into: one-room flat, two-room flat and three-room flat in apartment buildings. Houses are not covered. Prices are collected monthly. Data sources for rents in social housing are the official records of local authorities while rents in the private sector are collected from websites of real estate agencies, advertisements in the internet and newspapers and through interviews with private persons.
**F: Computation**

**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index) (Chained form)

**Formula to aggregate elementary indices to higher-level indices:** Individual price indices of representative products at the national level are aggregated into higher-level price indices and the country’s CPI according to the modified Laspeyres formula.

**Formula of aggregating regional/population group indices into national index:** A long-term price ratio, i.e. an elementary price index of each representative product at the national level, is calculated as a weighted arithmetic mean of long-term price ratios of 18 territorial units, using population weights (relative shares of the number of inhabitants). Each territorial unit in which prices are surveyed is attributed a certain zone of the country’s territory. A relative share of the population of each zone in the total population of the country is determined. The long-term price ratio of the i-th representative product of a certain territorial unit in the reporting month m is calculated by multiplying a short-term price ratio of the i-th representative product in the reporting month m by a long-term price ratio of the previous month m–1. A short-term price ratio of the i-th consumer representative product of the previous month m is calculated as a ratio of the arithmetic means of retail prices for each i-th representative product in each territorial unit, i.e. by comparing the arithmetic mean of prices of the reporting month m with the arithmetic mean of the prices of the previous month m–1.

**Monthly and annual average prices:** Average retail price of a product in a certain territorial unit is calculated as the arithmetic mean of retail prices for representative products in a particular territorial unit. Estimated prices are also taken into calculation of average price. A price of representative product at the national level is calculated as the weighted arithmetic mean of average retail prices of product in 18 territorial units, using the specific population weights. Annual average price of a product is the arithmetic mean of twelve months average prices.

**Seasonally adjusted indices:** No seasonal adjustment.

**Software used for calculating the CPI:** Microsoft Excel 2010.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** Checking functions have been installed in the hand-held computer software. When ‘errors’ (e.g. change in price from the previous month is more than 10%) are detected during the collection, the price collector either corrects the data or accepts it providing some explanation. The software also enables sorting of the selected goods and services; protection from missing or duplication of the product or outlet; display history of price quotes for each product; and transmits the entered price data to the central database. Price collectors have access to the central database and can check the transmitted data. A price is identified for checking if the change in price from the previous month is more than 10%. Price collectors provide explanations and reasons for unusual price changes. The copies of the documents passed by local authorities on fixing the prices and tariffs for goods and services falling within their regulatory powers are faxed or
sent by e-mail. The staffs from the Price Statistics Division periodically visit the territorial units to carry out follow-up checks in outlets to confirm reported prices.

**Control procedures used to ensure the quality of data processed:** Received price data are checked by the staff of the Price Statistics Division. Verification of the data received is conducted using the data control program designed for monthly checks against error and mistakes. Computerized and manual checks are undertaken at various stages of index compilation. The verification sheets contain information on the price data and information related to the reporting and previous months; ratios of prices and reasons of price changes, indicated by price collectors, for all price quotations in each trade and service outlet, covering all goods and services and territorial units; the period of the last change of the price observed; the smallest and the biggest prices; the coefficient of variation. Errors and suspicious entries are marked by certain symbols. A price is identified for checking if the change in price from the previous month is more than 10%. Particular attention is paid to quality changes, to prices that do not change for a very long time, to the lowest and the highest prices. In some cases, the suspicious price changes are checked by reference back to the outlet. Price changes may also be checked with domestic producers and suppliers of goods and services where suspicions remain. The staffs of the Price Statistics Division clarify all uncertainties with the price collectors via telephone and e-mail.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** CPI is disseminated on the 6th working day after the end of the reference month, (or the 10th working day for January).

**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, Class-level (100 classes), Average prices

**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:** Some homogenous food products, petrol, diesel, liquefied automobile gas (monthly), some alcoholic beverages, cold and hot water, heat energy, liquefied gas for cooking, cigarettes (prices for December). Prices for other products are provided on request.

**Documentation**

**Publications and websites where indices can be found:** Press release: [http://www.stat.gov.lt/en/pages/view/?id=1586](http://www.stat.gov.lt/en/pages/view/?id=1586); The Database of Indicators of Statistics Lithuania: [http://db1.stat.gov.lt/statbank/SelectTable/omrade0.asp?SubjectCode=S2&PLanguage=1&ShowNews=OFF](http://db1.stat.gov.lt/statbank/SelectTable/omrade0.asp?SubjectCode=S2&PLanguage=1&ShowNews=OFF); The monthly bulletin Economic and Social Development in Lithuania:


I: Other Information

Reported by the country in 2012.

Luxembourg

A: Identification

Title of the CPI: Indice des prix à la consommation national (IPCN).

Organisation responsible: STATEC

Periodicity: Monthly

Price reference period: December year t-1 = 100

Index reference period: 2005 = 100

Weights reference period: 2010

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, 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.

Consumption expenditure includes:
• Services produced for own final consumption;
• Food consumed away from home;
• Housing maintenance, minor repairs;
• Purchase of gifts of goods and services given to others outside the household;
• 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

Consumption expenditure excludes:

• Foods produced for own final consumption;
• Other goods 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;
• Second hand goods purchased;
• Interest payments (excluding mortgage interest payments);
• Life insurance premiums;
• Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
• 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: L’IPC est la mesure officielle de l’inflation au Luxembourg. Cet indice mesure les variations des prix des biens et services consommés par les ménages résidents sur le territoire national. L’IPC est également utilisé pour déclencher le mécanisme automatique d’adaptation des salaires, traitements et pensions.

Definition of consumption expenditures: L’IPC est la mesure officielle de l’inflation au Luxembourg. Cet indice mesure les variations des prix des biens et services consommés par les ménages résidents sur le territoire national. L’IPC est également utilisé pour déclencher le mécanisme automatique d’adaptation des salaires, traitements et pensions.

Classification: COICOP-LUX à 6 chiffres qui rafine la COICOP 4 chiffres harmonisés au niveau Européen.

Weights include value of consumption from own production: No
Sources of weights: Household expenditure surveys and national accounts.

Frequency of weight updates: Annual

Price updating of weight reference period to the index reference period: Les données de la comptabilité nationale de y-2 sont ajustés aux prix de décembre de y-1.

Weights for different population groups or regions: No.

D: Sample design

Sampling methods:

Localities: Judgmental sampling

Outlets: Judgmental sampling

Products: Judgmental sampling

Frequency of sample updates:

Localities: Continuous (on a rotating basis)

Outlets: Continuous (on a rotating basis)

Products: Continuous (on a rotating basis)

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Des prix sont relevés dans la totalité du pays. En raison de la petite taille du pays, il n’existe pas de découpage régional. L’ensemble des grands magasins et enseignes sont couverts par l’échantillon. Le nombre de variétés couvertes par position dépend du poids de la position.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: En général, l’enquêteur sélectionne un produit qui est simple et qui semble être bien vendu dans le point de vente. Si nécessaire, la collaboration d’un responsable du point de vente est sollicitée.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 1, Outlets: 700, Price observations: 8,000

Frequency with which prices are collected: En générale, la fréquence de collecte est mensuelle. Pour les produits pétroliers, elle est journalière. Pour les fruits et légumes, elle est deux fois par mois. Pour les vêtements et chaussure, elle est trimestrielle. Pour les loyers, les locataires sont contactés tous les six mois (échantillon rotatif).

Reference period for data collection: Période de référence - un mois entier.
En pratique, les prix sont relevés lors de la période du 1er au 15 du mois.

Pour les produits ayant une forte volatilité, une moyenne arithmétique non-pondérée des prix journaliers est effectuée.

**Methods of Price Collection**

- Personal data collection for : majorité des produits
- Mailed questionnaires : for loyer; auto-école
- Telephone interviews for : produits vendus dans de petits points de vente (fleurs, restaurants, etc)
- Internet for produits : ayant une large part dans le commerce électronique (livres, voyages, etc) ; certains services (électricité, télécommunications, etc)
- Official tariffs for : prix administrés (santé, transport public, etc); voitures.

**Treatment of:**

**Discounts and sales prices:** Sale prices and other reductions available to all potential consumers are included in the CPI.

**Black market prices:** Not collected.

**Second hand purchases:** Not included.

**Missing or faulty prices:** Carrying forward the previous observation.

Period for allowing imputed missing prices: 2 mois, remplacement dans le 3e mois. Un produit similaire est sélectionné.

**Disappearance of a given type or quality from the market:** Lorsqu’une variété n’est plus disponible, elle est remplacée par une variété du même segment de consommation. Afin de ne pas introduire un biais vers le bas, un prix avec une forte remise avant la disparition définitive du produit n’est pas prise en compte.

**Quality differences:** La plupart du temps, la méthode du « Bridged Overlap » est utilisée. Cette méthode consiste à estimer la variation pour une variété qui a été remplacée par la variation moyenne des autres variétés de la même position. Pour certains produits, une autre méthode d’ajustement de la qualité est appliquée : i) Loyers : amortissement des rénovations et réparations majeures ; ii) Livres, CD, DVD, jeux électroniques : méthode des meilleures ventes, iii) Voitures d’occasion : ajustement de l’âge et du nombre de km de la voiture

**Appearance of new items:** De nouveaux produits sont introduits dans l’échantillon de manière continue.

**Treatment of seasonal items and seasonality**
**Items that have a seasonal character and their treatment:** Fruits et légumes frais, vêtements et chaussures. Méthode dite “All-seasonal estimation”

**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 on out-of-season products are estimated or imputed and variable weights approach: where the weights vary over the year.

**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:** The method used to impute price development of in out-of season periods is carrying forward the last observed price and impute the price by using price development of in-season products.

**Treatment of housing**

**Treatment of owner-occupied housing:** Les logements occupés par les propriétaires ne sont pas couverts.

**Types of dwellings covered by the rent data:** Des loyers sont relevés pour des appartements, des maisons unifamiliales et des garages. Un questionnaire est envoyé aux locataires tous les six mois. Il s’agit d’un échantillon rotatif, c’est-à-dire chaque mois, 1/6 de l’échantillon est enquêté.

**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:** Formule de Laspeyres

**Formula of aggregating regional/population group indices into national index:**

\[ I = \sum_i w_i I_i, \]  
ou \( I_i \) sont les indices élémentaires et \( w_i \) sont les pondérations.

**Monthly and annual average prices:** Des prix moyens ne sont pas calculés de manière systématique.

**Seasonally adjusted indices:** Les résultats ne sont pas corrigés des variations saisonnières par les producteurs de l’IPC.

**Software used for calculating the CPI:** Logiciel développé au sein de l’institut de statistique. Programme développé en « Powerbuilder ».

**G: Editing and validation procedures**
Control procedures used to ensure the quality of data collected: - Lors de l’encodage des prix : contrôle automatique si la variation de prix est trop grande i) L’encodage est vérifié une 2e fois par une personne différente de celle qui a encodé les prix ; ii) Contrôle aléatoire des prix relevés

Control procedures used to ensure the quality of data processed: Détection des variations minimales et maximales au sein d’une position i) Analyse des impacts des positions sur le résultat ; ii) Analyse des variations mensuelles et annuelles par position

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: L’indice est publié en général le premier mercredi du mois qui suit le mois de référence.

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, Class-level (100 classes), Basic items

Separate indices published for specific population groups: Inflation sous-jacente, Produits pétroliers, Autres biens et service, Biens non durables, Biens semi-durables, Biens durables, Services.

Type of products for which average prices are calculated and disseminated: Aucuns prix moyens ne sont publiés.

Documentation

Publications and websites where indices can be found: Indicateur rapide série A1 (Fichier Excel, également disponible en version papier)


Publications and websites where methodological information can be found: Page méthodologique sur le site internet du STATEC :

http://www.statistiques.public.lu/fr/methodologie/methodes/economie-finances/Prix/ipc/index.html

I: Other Information

Reported by the country in 2012.
Macao, China

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Statistics and Census Service

Periodicity: Monthly


Weights reference period: 2007-2008

Main uses of CPI: Main inflation indicator used for monetary policy, and deflate household expenditures in national accounts.

B: CPI Coverage

Geographical Coverage

Weights: Urban areas

Price collection: Urban areas

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;
• Luxury goods;
• 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;
• Second hand goods purchased;
• 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: The Consumer Price Index is an economic indicator that measures the changes in the price level of consumer goods and services purchased by households. The CPI aims to reflect the impact of price changes on the general population.

Definition of consumption expenditures: Consumption expenditures are defined as the total expenditures of goods and services acquired by the household for final consumption, regardless of the payment method.

Classification: COICOP (Classification of individual consumption by purpose) with minor modifications adapted to the local situation.

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 compiled for: 1) general population; 2) households with an average monthly expenditure of MOP6,000 to MOP18,999; and 3) households with an average monthly expenditure of MOP19,000 to MOP34,999.

D: Sample design

Sampling methods:
Localities: Judgmental sampling

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

Frequency of sample updates:

Localities: At the time of updating the basket of goods and services and the weights, every 3-5 years.

Outlets: At the time of updating the basket of goods and services and the weights, every 3-5 years.

Products: At the time of updating the basket of goods and services and the weights, every 3-5 years.

If sample updates are irregular indicate when last updates were introduced: Apr/2008–Mar/2009

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples
i) The number of outlets selected in each Parish of the territory is determined by the density of outlets in that Parish; ii) More outlets are selected for goods and services with higher significance of relative importance; iii) More outlets are also selected to monitor the price changes of those goods and services with frequent price fluctuations to enhance the objective of price movements; iv) In addition, more outlets are selected for the goods and services with unstable supply. In practice, at least 9 outlets are selected for each item whenever possible.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: A product that matches loose specifications is observed and the most popular brand of that product is selected.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 7, Outlets: 490, Price observations: 6,600

Frequency with which prices are collected: Prices on fresh food items are collected twice a week; other food items, beverages, alcoholic beverages, clothing & footwear, transport, communication, recreation, gold prices, rents are collected on a monthly basis. Prices on medical treatment, hospital services and education are collected half yearly; household goods and furnishings, as well as miscellaneous goods and services are collected quarterly, while payment on insurance premium; bus, taxi & ferry fares are collected annually. In addition, when the price changes of public services such as water, electricity charges, gasoline, LP-gas, etc. are officially announced, the new prices will be immediately included in the CPI calculation.
**Reference period for data collection:** Fresh food prices are collected on every Monday and Wednesday; gold prices on 15th of each month; package tours in the third week of each month; others items throughout the month.

**Methods of Price Collection**

- Personal data collection for all items except part of the samples of rent.
- Telephone interviews for part of the samples of rent.
- Official tariffs for items of public services.

**Treatment of:**

**Discounts and sales prices:** They are used in the calculation of the index.

**Black market prices:** Not collected.

**Second hand purchases:** Not included.

**Missing or faulty prices:** Carrying forward the previous observation is adopted for faulty prices. Missing prices are treated with the following methods: i) Temporary stock shortage – the missing price is imputed with the last observed price, assuming zero price change during the two periods; ii) Temporary suspension of business – price movement of the items sold in this outlet is imputed by that of the other outlets selling similar goods.

Period for allowing imputed missing prices: 2 months after which the substitution process of the respective item is carried out using the following criteria: i) The replacement item belongs to the same kind of goods and services being substituted; ii) Having similar quality and characteristics of the substituted item; iii) The replacement brand has to be a more popular brand than the one being substituted. The relative importance of the substituted item is then attributed to the new item, assuming that the price movement of the new item, prior to its selection, is going in the same direction as the substituted item.

**Disappearance of a given type or quality from the market:** Replacement with the most similar product is carried out. If there is no suitable replacement item, the last observed price is adopted.

**Quality differences:** If the selected replacement product is regarded as comparable, then direct comparison is carried out; if not, a base price is imputed with the observed price assuming zero price change during the two periods.

**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:** Prices for seasonal food products and clothing are collected in respective seasons only.
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: The method used to impute price development in out-of-season periods is carrying forward the last observed price.

Treatment of housing

Treatment of owner-occupied housing: Rent information on owner-occupied units is measured by the “Rental Equivalence Approach”, assuming that the rent movement is identical to that of the actual rents paid by the tenants in the same Parish and usable floor area. Rent Index of owner-occupied units is the weighted average of these units.

Types of dwellings covered by the rent data: Rent data covers private housing and social housing units in the territory. Rent data on private housing are collected from about 400 housing units every quarter. The samples are divided into three groups and enumerators collect rent information from each of these groups per month, either by direct face-to-face interview or using the Computer Aided Telephone Interviewing (CATI). For the non-contact, owner-occupied and vacant units, they will be substituted according to the location and usable floor area. Rent information collected for the current month (monthly) is combined with that of the past two groups and compared with the data of the previous month compiled using the same method. Identical units with rent information are chosen to calculate the average rent and index of each Parish and usable floor area. The overall Rent Index is the weighted average of all the Parishes and usable floor areas. Rent for social housing is provided quarterly by the Housing Bureau. Based on the information obtained, the average rent and rent index of social housing are compiled by comparing the total value of rents and total floor area of the identical social housing units leased in the past two quarters. Lastly, individual index of private housing, owner-occupied housing and social housing units are incorporated to the CPI according to their relative importance.

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: Aggregation of product indices into item indices is by the formula below:

\[
I_i(t) = \frac{\sum_{j=1}^{n} W_j(t_0) \cdot I_j(t)}{\sum_{j=1}^{n} W_j(t_0)}
\]
\[ I_{i(t)} \] - Item Index \( i \) at current period \( t \)
\[ I_{j(t)} \] - Index of product \( j \) at current period \( t \)
\[ W_{j(i,t)} \] - Weight of each product \( j \) of item \( i \) at base period \( t_0 \)
\( n \) - Number of products of item \( i \)

**Monthly and annual average prices:** The average price for fresh food is the simple arithmetic mean of prices collected. For other goods and services, the average price is derived from the geometric mean to minimize the effect of significant price variations on a particular item.

**Software used for calculating the CPI:** Self developed programme.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** Field checks are carried out when significant differences are observed in the collected prices, for example, prices collected in the same outlets vary obviously between the current month and the previous month.

**Control procedures used to ensure the quality of data processed:** Data entry checklists and validation reports are employed.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** The lapsed time of the monthly CPI between the end of the field operation and the first publication is 3 weeks while the CPI annual report is published in March of the following year.

**Level of detailed CPI published**

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

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

**Separate indices published for specific population groups:** The CPI-A relates to households which have an average monthly expenditure of MOP6,000 to MOP18,999 and the CPI-B relates to households with an average monthly expenditure of MOP19,000 to MOP34,999.

**Type of products for which average prices are calculated and disseminated:** Prices of selected fresh food products, LP gas and gasoline are calculated and disseminated.

**Documentation**
Publications and websites where indices can be found: Brief Report (monthly); Annual Report; Monthly Bulletin of Statistics; Yearbook of Statistics; and Macao in Figures. Website: [http://www.dsec.gov.mo](http://www.dsec.gov.mo)


I: Other Information

Reported by the country in 2012.

Madagascar

A: Identification

Title of the CPI: National Consumer Price Index

Organisation responsible: National Statistics Institute (INSTAT)

Periodicity: Monthly

Index reference period: 2000 = 100

Weights reference period: 1999 National survey conducted on health, education, and household expenditure.

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

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Classification: COICOP (Classification of individual consumption by purpose) with 10 functions, 33 groups, and 104 items.
Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

D: Sample design

E: Data Collection

Methods of Price Collection

- Personal data collection

- Official tariffs

Treatment of:

Missing or faulty prices: When a product is temporarily unavailable (particularly where seasonal goods are concerned), the latest observed price is repeated as required.

Disappearance of a given type or quality from the market: If a product disappears, it is replaced with a similar product.

Appearance of new items: To date, no new products have been introduced in the CPI.

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

Formula to aggregate elementary indices to higher-level indices: Aggregation is by Laspeyres formula.

Seasonally adjusted indices: The index is not subject to any seasonal adjustment.

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: Index results are published between the 10th and 20th of the month following the reference month (depending on data availability).

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation
Publications and websites where indices can be found: New consumer price indices (Nouveaux indices des prix à la consommation), in French; Internet website: www.instat.mgn

Publications and websites where methodological information can be found: In March 2003, INSTAT published a practical guide for the collection, processing, and calculation of consumer price indices (Guide pratique pour la collecte, le traitement et le calcul des indices des prix à la consommation), primarily for staff involved in the process of preparing the consumer price index (CPI), but also available to the public on request. A methodological note on price indices (Note Méthodologique sur les indices des prix) is also available.

I: Other Information

Completed by ILO in 2013.

Malawi

A: Identification

Title of the CPI: Malawi Consumer Price Index

Organisation responsible: Malawi National Statistical Office

Periodicity: Monthly

Price reference period: 2000 = 100

Index reference period: 2000 = 100

Weights reference period: 1998 Integrated Household Survey (IHS1)

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.

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;
• Housing maintenance, minor repairs;
• Second hand goods purchased;
• Luxury goods;
• 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);
• Occupational expenditures

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: Consumer price indices measure changes over time in the general level of prices of goods and services that households acquire, (use or pay for) for the purpose of consumption.

Definition of consumption expenditures: Consumption is defined by use or payment.

Classification: Central Product Classification

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 weight-reference-period values (November 1997-October 1998) were updated for price change to the index reference period (the year 2000) using an appropriate price index.

Weights for different population groups or regions: Yes

D: Sample design

Sampling methods:

Localities: Judgmental sampling

Outlets: Judgmental sampling

Products: Judgmental sampling

Frequency of sample updates:

Outlets: Continuous (on a rotating basis)

Products: Continuous (on a rotating basis)
Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Close similarities in item specifications.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 36, Price observations: 6,396

Frequency with which prices are collected: Prices for all goods and services are collected monthly.

Reference period for data collection: The first two weeks of each month.

Methods of Price Collection

- Personal data collection for all items.

Treatment of:

Missing or faulty prices: Carrying forward the previous observation.

Period for allowing imputed missing prices: 3 months

Disappearance of a given type or quality from the market: If the product has missed on the market for 3 consecutive months, it is replaced with another product with close similarities in specifications.

Treatment of seasonal items and seasonality

Treatment of housing

Treatment of owner-occupied housing: Les logements occupés par les propriétaires ne sont pas couverts.

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: Standard Laspyres-weighted averages.

Formula of aggregating regional/population group indices into national index: Weighted average.

Software used for calculating the CPI: Microsoft Excel

G: Editing and validation procedures
**H: Documentation and dissemination**

**Level of detailed CPI published**

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

**Online:** All items CPI, Group-level app. 40 groups

**Separate indices published for specific population groups:** High, medium and low income groups.

**Documentation**

**Publications and websites where indices can be found:** Monthly Stats Flash, Monthly and Quarterly Bulletins, Statistical Year Book, Website: [www.nso.malawi.net](http://www.nso.malawi.net)

**I: Other Information**

Reported by the country in 2012.

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**Malaysia**

**A: Identification**

**Title of the CPI:** Consumer Price Index

**Organisation responsible:** Department of Statistics

**Periodicity:** Monthly

**Index reference period:** 2010 = 100

**Weights reference period:** 2009/2010 Household Expenditure Survey.

**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, macroeconomic modelling and other analytic uses.

**B: CPI Coverage**

**Geographical Coverage**

**Weights:** Nation-wide

**Price collection:** Nation-wide
Population coverage: Resident households of nationals.

Consumption expenditure excludes:

- Investment-related expenditures (e.g. purchase of shares/stocks)

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: A price index is a measure of the proportionate, or percentage, changes in a set of prices over time. A consumer price index (CPI) measures changes in the prices of goods and services that households consume.

Classification: COICOP (Classification of individual consumption by purpose) covering 12 groups.

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, not needed.

D: Sample design

Sampling methods:

Outlets: Judgmental sampling

Products: Sampling with probability proportional to size (PPS)

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Item selection is done by probability proportionate to size (PPS).

Outlet selection for rents is by quota sampling. The judgmental method is used for outlet selection of other items taking into account the types of stores, sales volumes, number of items and locations within cities.

Sample sizes: Approximately 8,200 rent quotes and 210,000 other quotes are collected each month at approximately 24,600 outlets.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Generally, specifications provide detailed descriptions on the characteristics of the product surveyed. A fairly narrow quality range may be specified, yet in some cases specific models are identified. The item specifications in the price schedule forms are revised and updated every six months.

E: Data Collection
Approximate number of localities, outlets and price observations: Outlets: 24,600, Price observations: 220,000

Frequency with which prices are collected: Items are priced monthly except perishable items which are priced on a weekly basis in urban centers. Rental prices are collected on a quarterly basis.

Reference period for data collection: Price collection is spread over the week in which the 15th of the month falls.

Methods of Price Collection

- Personal data collection for most items.
- Telephone interviews for services items.

Treatment of:

Discounts and sales prices: Discounts and sales prices are included in price collection.

Missing or faulty prices: For missing prices, either the previous price is carried forward or the price is not used in the calculation of the current month's price change or a price is imputed based on the price movement of similar products in the same item category for the same collection center.

Disappearance of a given type or quality from the market: Items are divided into 2 categories i.e. specific and son-specific. The replacements for specific items are done by CSO whereas price collectors are given authority over replacements of nonspecific items. Replacements are made when possible; price collectors select products with significant market share and where possible the same quality; quality is defined in terms of characteristics listed in product description.

Appearance of new items: Whenever a new product gains a sufficient market share, a specification for the product is added to the pricing sample.

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

Formula to aggregate elementary indices to higher-level indices: Fixed base Laspeyres formula.

Seasonally adjusted indices: Data are not seasonally adjusted

G: Editing and validation procedures
Control procedures used to ensure the quality of data collected: Quality checks by the supervisors are carried out on a monthly basis for non-perishable items, weekly for perishable items in urban areas and quarterly for rent survey. Internal auditors monitor the quality of data collected and interviewers verify all price changes and are required to provide explanations for unusual movements. Prices are scanned at head office for reasonableness.

Control procedures used to ensure the quality of data processed: Calculations are reviewed by statisticians in the Prices, Income and Expenditure Division for reasonableness and consistency with external information including statistical analysis.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The dissemination of CPI data is done 2 – 4 weeks 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

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

Documentation


Publications and websites where methodological information can be found: The metadata for CPI is available from the department’s web-site: http://www.statistics.gov.my

I: Other Information

Completed by ILO in 2013.

Maldives

A: Identification

Title of the CPI: Maldives Consumer Price Index

Organisation responsible: Department of National Planning

Periodicity: Monthly

Price reference period: June 2004
Index reference period: June 2004

Weights reference period: June 2004

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.

Consumption expenditure includes:

- Food consumed away from home;
- Housing maintenance, minor repairs;
- Luxury goods;
- 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;
- Purchase of gifts of goods and services given to others outside the household;
- Second hand goods purchased;
- Financial services (including fees for financial advice, brokerage fees);
- Interest payments (excluding mortgage interest payments);
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- 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: A consumer price index (CPI) measures changes in the price level of consumer goods and services purchased by households. Its objective is to measure the rate of price inflation as perceived by households and changes in their cost of living.

Definition of consumption expenditures: Household consumption expenditure used for derivation of the weights is the value of consumer goods and services purchased (cash expenditure) by a household for the satisfaction of the needs and wants of its members.

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: The base period for the CPI is June 2004 and the expenditure values obtained from HIES 2002/03 were updated to 2004 June price levels by taking into account the price changes between these periods.

Weights for different population groups or regions: Weights are compiled for urban and rural areas and at the national level.

D: Sample design

Sampling methods:

Localities: Judgmental sampling

Outlets: Judgmental sampling

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: Every five years, based on expenditures by locality. However, outlets and products are replaced if required.

Outlets: Every five years, based on expenditures by locality. However, outlets and products are replaced if required.
*Products*: Every five years, based on expenditures by locality. However, outlets and products are replaced if required.

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples**: Cut off sampling method is used to select items to be included in the CPI basket.

### E: Data Collection

**Approximate number of localities, outlets and price observations**: Localities: 5, Outlets: 342, Price observations: 7,894

**Frequency with which prices are collected**: Prices are collected on a monthly basis except for fish which are collected on a daily basis and averaged.

**Methods of Price Collection**

- Personal data collection for food items.
- Telephone interviews for non-food items.

**Treatment of:**

**Discounts and sales prices**: They are used in the calculation of the index.

**Missing or faulty prices**: Extrapolation by using the change of the other prices for the same item.

Period for allowing imputed missing prices: 6 months.

**Disappearance of a given type or quality from the market**: Products/varieties that disappear are not replaced.

**Quality differences**: No quality adjustments are done.

**Appearance of new items**: No new items are introduced in the CPI.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment**: Fresh fruits and vegetables. If the item is not available at the time of price collection, its last observed price is carry forward. There are no many seasonal products in the basket.

**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:** The method used to impute price development in out-of-season periods is carrying forward the last observed price.

**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:** Rent data includes 1, 2 and 3 room’s apartments; rent quotes are collected on a monthly basis.

**F: Computation**

**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index) (Direct form)

**Formula to aggregate elementary indices to higher-level indices:**

\[
I_p = \frac{\sum p_1 q_0}{\sum p_0 q_0} = \left[ \frac{\sum \frac{p_1}{p_0} p_0 q_0}{\sum p_0 q_0} \right] \times 100
\]

where:
- \( I_p \) is the index for period 1 compared with base period
- \( p_1 \) is the price of item \( j \) in period 1
- \( p_0 \) is the price of item \( j \) in base period 0
- \( q_0 \) is the quantity of item \( j \) in base period 0
- \( p_1/p_0 \) is the price relative of item \( j \) between period 1 and base period 0
- \( p_0 q_0 \) is the expenditure on item \( j \) in the base period
- \( p_1 q_0 \) is the expenditure on the same quantity of item \( j \) in period 1
- \( \Sigma \) means the summation over all selected items in the basket

**Monthly and annual average prices:** Average prices are computed only for matched cases.

**Seasonally adjusted indices:** No

**Software used for calculating the CPI:** PRIMA system (Price Index Management system)

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** Random checks by visiting or calling outlets are done by the price unit staff to verify the collected price data.
Control procedures used to ensure the quality of data processed: PRIMA program does consistency checks and filters those products whose prices increase more than 25% for rechecking.

**H: Documentation and dissemination**

Timeliness of dissemination of the CPI data: Male’ and national CPI are published on the 15th and 31st of the month following the reference month respectively.

Level of detailed CPI published

Paper publication: All items CPI

Online: All items CPI

Separate indices published for specific population groups: No

Type of products for which average prices are calculated and disseminated: Major categories and those products which show a significant price change.

Documentation

Publications and websites where indices can be found: Consumer Price Index –National, available at [www.planning.gov.mv](http://www.planning.gov.mv)

Publications and websites where methodological information can be found: Rebasings the consumer price index (CPI), June 2004, Male’, available at [www.planning.gov.mv](http://www.planning.gov.mv)

**I: Other Information**

Reported by the country in 2012.

**Mali**

**A: Identification**

Title of the CPI: Indice Harmonisé des Prix à la Consommation (IHPC)

Organisation responsible: Institut National de la Statistique (INSTAT) Département des statistiques démographiques et sociales Division des statistiques des revenus et de la consommation.

Periodicity: Mensuelle

Price reference period: 2008
Index reference period: 2008

Weights reference period: 2008

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: Main city (can include surrounding areas)

Price collection: Main city (can include surrounding areas)

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

Population groups excluded: Institutional households; Les ménages non africains; les ménages africains expatriés dont un des membres occupe un emploi dans un organisme international.

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;
- Purchase of gifts of goods and services given to others outside the household;
- Luxury goods;
- Second hand goods purchased (second hand cars only);
- Gambling expenditure, gross of winnings

Consumption expenditure excludes:

- Purchase of owner-occupied housing;
- Mortgage repayments;
- Mortgage interest;
- Major repairs, conversions and extensions to owner occupied housing;
- Financial services (including fees for financial advice, brokerage fees);
- Interest payments (excluding mortgage interest payments);
• Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
• Life insurance premiums;
• Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
• 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: Un indice des prix à la consommation des ménages est un instrument de mesure, qui permet d'estimer, entre deux périodes données, la variation moyenne des prix des biens et services consommés par les ménages sur un territoire donné.

Definition of consumption expenditures: Le champ théorique de l'indice des prix est constitué de dépenses monéteres de consommation finale. Ce champ couvre les dépenses effectuées par les ménages résidents, indépendamment de la nationalité, dans les opérations monétaires, sur le territoire économique de l’Etat et pour l'acquisition des biens et services servant à satisfaire directement les besoins individuels au cours de la période étudiée.

Classification: Les biens et services retenus pour l'élaboration des indices harmonisés des prix à la consommation des pays de l'UEMOA sont classés à l'aide de la nomenclature NCOA, dérivée directement de la nomenclature internationale COICOP, qui est structurée de façon enboitée en fonction, groupes et sous-groupes.

Weights include value of consumption from own production: Yes

Sources of weights: Household expenditure surveys, national accounts, consumer surveys, les statistiques du commerces extérieures.

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: No.

D: Sample design

Sampling methods:

Localities: Judgmental sampling

Outlets: Judgmental sampling

Products: Judgmental sampling
Frequency of sample updates:

Localities: Continuous (on a rotating basis)

Outlets: Continuous (on a rotating basis)

Products: Continuous (on a rotating basis)

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Les produits ont été choisis en tenant compte de leur importance dans la dépense des ménages. Le choix des points de vente est raisonné.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Nous avons utilisé la notion de produits élémentaires et de series qui lie le type de point de vente à la variété. Pour un produit donné nous devons faire au plus six relevés dans six points de ventes différents. Il est à noter que dans le choix des produits dans les points de vente nous avons pris en compte l'auto-pondération. Autrement dit nous ne devons pas avoir le même nombre de relevés dans une boulangerie que dans une boutique de proximité

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 1, Outlets: 1,511, Price observations: 6,428

Frequency with which prices are collected: Les relevés des prix sont l'inéairement repartis dans le mois. L'indice est publié le 10 chaque mois. Les produits sont classés en deux grands groupes qui sont: les homogères environ 30 relevés et les hétérogènes 6 relevés au plus dans le mois. Quant au logement 150 relevés sont faites par trimestre soit une cinquantaine par mois.

Methods of Price Collection

- Personal data collection for: tous les produits.

Treatment of:

Discounts and sales prices: Les réductions de prix qui ne dure pas ou non habituelles ne sont pas prises en compte.

Black market prices: Not collected.

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

Missing or faulty prices: Pour estimer les prix manquants les méthodes suivantes sont utilisées : la méthode par imputation du prix du mois précédent, la méthode d'estimation automatique est utilisée. La méthode exogène.
Period for allowing imputed missing prices: Les imputations sont autorisées au plus trois mois et au-delà la série est mise en instance de remplacement.

**Disappearance of a given type or quality from the market:** Un produit est considéré comme "manquant" dans un point de vente donné, dans les deux cas suivants : S'il y abandon définitif de la vente du produit. S'il y a une rupture temporaire du stock du produit le produit élementaire peut être remplacé par un produit suffisamment proche. Dans ce cas, le prix de base du nouveau produit est considéré comme le prix de base de l'ancien produit. Si le produit de remplacement n'est pas jugé suffisamment proche de l’ancien, un prix de base doit être déterminé pour le nouveau produit.

**Quality differences:** Dans le cadre du changement de qualité plusieurs: La méthode hédonique ou économétrique peuvent être utilisées pour opérer les ajustements.

**Appearance of new items:** Les apparitions de nouveaux produits dans le panier interviennent surtout au moment de la rénovation de l'indice.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** Les produits saisonniers sont des produits qui apparaissent et qui disparaissent au cours de l'année. Mais aussi les produits qui fluctuent fréquemment au cours de l’année.

**Seasonal food items:** Seasonal food items are included in the CPI using variable weights approach: the weights vary over the year.

**Seasonal Clothing:** Nous n'avons pas de vêtements saisonniers.

**Treatment of housing**

**Treatment of owner-occupied housing:** Seuls les loyers réels des locataires sont pris en compte. Les loyers fictifs des propriétaires occupants et les loyers fictifs des ménages logés gratuitement ou ne payant qu'un loyer réduit ne font pas partie du champ des indices harmonisés. Un échantillon de 150 logements au minimum est réparti sur les différentes variétés retenues en fonction de leurs poids en évitant d'avoir moins de 10 logements par variété. Les logements sont suivis auprès des ménages occupants, mais sont enquêtés, par rotation, une fois tous les 3 mois. La collecte est effectuée au niveau des ménages et des agents immobiliers. Au niveau des agents immobiliers l'observation est complétée par l'étude des variations de loyers lors de changement d'occupants auprès d'agents immobiliers.

**Types of dwellings covered by the rent data:** Les types de logements couverts sont les plus fréquemment utilisés par la population de Bamako.

**F: Computation**

**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index) (Direct form) and the ratio of geometric mean prices (Jevons index) (Direct form)
Formula to aggregate elementary indices to higher-level indices: La formule de Laspeyre est utilisée.

Formula of aggregating regional/population group indices into national index: Pas calculée pour le moment.

Monthly and annual average prices: Des prix moyens ne sont pas calculés.

Software used for calculating the CPI: CHAPO (Calcul Harmonisé des Prix par Ordinateur) et présentement on migre vers le logiciel PHOENIX-UEMOA

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Les types de contrôle après la collecte et saisie sont : Le contrôle d'exhaustivité des prix, le contrôle d'exhaustivité des quantités, le contrôle de cohérence des prix, et le contrôle informatique de la qualité de la collecte.

Control procedures used to ensure the quality of data processed: Les données aberrantes ou mauvaise collecte ou mauvaise saisie sont repérées puis traitées spécifiquement.

H: Documentation and dissemination

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

Separate indices published for specific population groups: No

Type of products for which average prices are calculated and disseminated: Les prix moyens sont calculés et publiés dans le cadre des produits de premières nécessités.

Documentation

Publications and websites where indices can be found: IHPC est publié chaque mois sur le site de l'INSTAT : www.instat.gov.ml

Publications and websites where methodological information can be found: Sur le site internet: www.uemoa.int//www.izf.net

I: Other Information

Reported by the country in 2012.
**Malta**

**A: Identification**

**Title of the CPI:** Retail Price Index

**Organisation responsible:** National Statistics Office (NSO)

**Periodicity:** Monthly

**Index reference period:** 2009 = 100

**Weights reference period:** 2008/2009 Household Budgetary Survey.

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

**B: CPI Coverage**

**Geographical Coverage**

*Weights:* Nation-wide

*Price collection:* Nation-wide

**Population coverage:** Resident households of nationals.

**C: Concepts, definitions, classifications and weights**

**Definition of the CPI and its objectives:** The Retail Price Index is the main measure of inflation in Malta. It measures the average change from month to month in the prices of goods and services purchased by most households in Malta.

**Classification:** COICOP (Classification of individual consumption by purpose)

**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, not needed.

**D: Sample design**

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:** Item selection: Price collectors are free to choose a specific product for regular pricing. No further specifications and instructions are given and individual price collectors are free to select any item in the initial stage. The only restriction
imposed on their choice is that the particular item has to be sought after by consumers, suitable for regular pricing and likely to be available in the long run. Once the item has been selected, price collectors are required to stick to those specifications for price readings.

Outlet selection: The outlets for price collection are derived from the Business Register according to the market share of each outlet. This ensures that the outlets covered are representative of the entire population.

E: Data Collection

**Approximate number of localities, outlets and price observations:** Price observations: 9,000

**Frequency with which prices are collected:** Prices are collected monthly. Seasonal product’s prices are collected twice a month in two alternative weeks. Financial services charges are monitored on a quarterly basis and rent quotes are revised once a year.

**Reference period for data collection:** Prices are collected around the middle of each month. Prices for doctors, dentists, consultants and veterinary services are followed in June every year. Education fees are obtained every March and October of each year and school fees for private schools are obtained at the beginning of the academic year (October).

Methods of Price Collection

- Personal data collection
- Telephone interviews for education fees.
- Postal sample survey for house rent and garage rent, surveys for doctors, dentists, consultants and veterinary services.

**Treatment of:**

**Discounts and sales prices:** Sales prices are included provided that the item will continue to be available after the sales period. Discount prices that are not available to all potential consumers are excluded.

**Quality differences:** Quality adjustments are done with three methods: i) Direct price comparison where the price of a new item, which differs slightly from the base item, is accepted. The underlying assumption is that the observed difference in price between the new and old product is entirely due to price change, not quality difference. This method is applied to the clothing items and non-food products; ii) Computers option cost index. This was introduced for the purpose of monitoring computers. It refers to a situation where a feature which was previously optional in a model becomes standard. Where the price of the option is known, it can be used as a measure of the change in quality of the model; iii) New cars hedonic index: The hedonic approach is a basic technique whereby the price (usually the log of the price) of a particular item is regressed on a set of statistically significant variables measuring its quality in every time period.
Treatment of seasonal items and seasonality

**Items that have a seasonal character and their treatment:** The seasonal items are fresh vegetables, fresh fruits and fresh or chilled fish. Item monitoring of seasonal items varies from month to month according to market and weather conditions. The seasonal food items are included in the CPI using the Rothwell-type method whereby the overall weights of fish, fruits and vegetables are constant throughout the year but the weights of the individual items pertaining to these three groups are variable.

**Seasonal food items:** Seasonal food items are included in the RPI 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

**F: Computation**

**Formula to aggregate elementary indices to higher-level indices:** Elementary index aggregation is according to the fixed Laspeyres formula. The RPI is a fixed quantity price index. The index \( I_t \) at time \( t \) is a Laspeyres-type or fixed base weight index, being the price of the basket at a given time expressed as a percentage of its price on the base date:

\[
I_t = \frac{\sum P_{it}Q_{ib}}{\sum P_{ib}Q_{ib}} \times 100
\]

Where:
- \( P_{it} \) = price for the \( i^{th} \) item at time \( t \);
- \( P_{ib} \) = price for the \( i^{th} \) item in the base year;
- \( Q_{ib} \) = quantity of \( i^{th} \) item purchased in the base year.

Alternatively the above equation can be written as follows:

\[
I_t = \frac{\sum (P_{it}Q_{ib})w_i}{\sum w_i} \times 100
\]

where \( w_i = P_{ib}Q_{ib} \).

This is a weighted average of price relative, the weight being the expenditure on item \( i \) in the base period.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** It is the responsibility of the consumer prices unit staff members to validate manually all price quotations and query any significant discrepancies. Price collectors indicate any changes for the benefit of the consumer prices officials.
H: Documentation and dissemination

Level of detailed CPI published

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

Documentation


**Publications and websites where methodological information can be found:** A methodological document explaining the compilation and computation RPI is available at [http://www.nso.gov.mt/site/page.aspx?pageid=402](http://www.nso.gov.mt/site/page.aspx?pageid=402)

I: Other Information

Completed by ILO in 2013.

Maroc

A: Identification

**Title of the CPI:** Indice des prix à la consommation

**Organisation responsible:** Division des indices statistiques -Direction de la Statistique

**Periodicity:** Monthly

**Price reference period:** 2006

**Index reference period:** 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, macroeconomic modelling and other analytic uses.

B: CPI Coverage
Geographical Coverage

Weights: Urban areas

Price collection: Urban areas

Population coverage: Resident households of nationals.

Consumption expenditure includes:

- Food consumed away from home;
- Mortgage interest;
- Housing maintenance, minor repairs;
- 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);
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- Life insurance premiums;
- Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
- Expenditures abroad

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;
- Second hand goods purchased;
- Gambling expenditure, gross of winnings;
- 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: Indice des prix à la consommation mesure le niveau et l'évolution des prix de détail des biens et services dans le temps et dans l'espace. Les principaux objectifs de l'IPC sont : i) Outil de mesure de l'inflation; ii) Déflation des agrégats de la comptabilité nationale; iii) Outil d'analyse de la conjoncture.

Definition of consumption expenditures: Les dépenses de consommation: toutes les dépenses engagées par les ménages pour l'acquisition des biens et services en vue de la
consommation, les produits auto-consommés, la valeur locative des logements occupés par leurs propriétaires, les biens et services reçus en nature et la valeur des avantages en nature reçus par certains employés (logement, eau, électricité, etc)

**Classification:** Nomenclature marocaine des produits

**Weights include value of consumption from own production:** No

**Sources of weights:** Household expenditure surveys, enquête sur les niveaux de vie pour l'actualisation des grands groupes.

**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:** No. Le Simulateur de l'IPC est mis à la disposition des utilisateurs via le Site Web du Haut Commissariat au Plan. Cet outil interactif permet aux utilisateurs de tenir compte de leurs habitudes de consommation personnelles en jouant sur la pondération de l'indice des prix à la consommation. Rappelons que le simulateur n'est pas destiné à compléter ou à remplacer le chiffre officiel de l'inflation publié mensuellement.

**D: Sample design**

**Sampling methods:**

*Localities:* Judgmental sampling

*Outlets:* Judgmental sampling

*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:* Selon la disponibilité des données sur les structures de consommation et de population.

*Outlets:* Continuous (on a rotating basis)

*Products:* Selon la disponibilité des données sur les structures de consommation et de population.

**If sample updates are irregular indicate when last updates were introduced:** Localités et produits: en 2006.

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:** les critères utilisés pour la détermination de la taille optimale de l'échantillon sont: i) les localités : les villes les plus importantes du pays chef lieu...
Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: chaque produit est représenté par un certain nombre de variétés représentatifs, qui sont soigneusement décrites en concertation avec les points de vente selon les critères d'importance et de représentativité.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 17, Outlets: 6,500, Price observations: 45,000

Frequency with which prices are collected: La fréquence hebdomadaire de relevé des prix pour les produits frais. La fréquence mensuelle ou trimestrielle de relevé des autres produits.

Reference period for data collection: Les observations hebdomadaires sont composées de 20 prix relatives aux 4 semaines du mois et aux 5 zones d’enquête; i) les observations mensuelles peuvent atteindre jusqu’à 5 relevés pour chaque variété; ii) la méthode utilisée pour l’agrégation des prix.

Methods of Price Collection

- Personal data collection for environ tous les produits.
- Internet for communications.
- Official tariffs for médicaments.

Treatment of:

Discounts and sales prices: Les soldes et les réductions sont pris en compte dans le cas où leur durée est jugé importante et leur impact est significatif sur le consommateur

Black market prices: Not collected.

Second hand purchases: Not included.

Missing or faulty prices: Report proportionnel selon la formule utilisée de Laspeyres Chaîne

Period for allowing imputed missing prices: La durée des imputations de prix manquants est de 3 mois. Les enquêteurs procèdent à la recherche et la sélection des produits similaires pour le remplacement.
Disappearance of a given type or quality from the market: Remplacement par un produit représentatif et similaire.

Quality differences: le traitement de la qualité dépend de la nature des biens et services et de la disponibilité de l'information; plusieurs méthodes sont utilisées : i) Méthode d'ajustement raisonnée les prix de base sont ajustés de telle sorte que l'indice de produit représentatif reste inchangé, en supposant que la différence de prix est due à la qualité quand il est relativement importante (méthode d'ajustement raisonnée) ; ii) la substitution essentiellement équivalente ; iii) la méthode d'ajustement pour tenir compte du changement de la quantité pour certains produits.

Appearance of new items: Les nouveaux produits sont introduits lors de la réforme totale de l'indice ou suite à la disponibilité de nouvelles structures sur la consommation des ménages.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Le problème des produits saisonniers est résolu en utilisant la formule de Laspeyres en chaîne.

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

Treatment of housing

Treatment of owner-occupied housing: Les logements occupés par les propriétaires ne sont pas couverts.

Types of dwellings covered by the rent data: Les types de logements couverts par l'IPC sont : les appartements, la maison marocaine traditionnelle, la maison marocaine moderne et les villas. 2004 : l'adoption d'une nouvelle stratification (12 strates) ; le choix de 6 lots pour Casablanca et Rabat et 4 lots pour les autres villes ; la répartition proportionnelle de la taille de l’échantillon entre les villes; - la taille de l’échantillon principal s’élève à 4,777 locataires.

F: Computation

Formula used for calculation of elementary indices: The ratio of arithmetic mean prices (Dutot index) (Direct form)
Formula to aggregate elementary indices to higher-level indices: Les indices de produits (premier niveau) sont calculées en utilisant la formule de « Laspeyres en chaîne », basée sur une simple moyenne des indices élémentaires (rapports de prix) des produits représentatifs.

Formula of aggregating regional/population group indices into national index: Le processus d'agrégation des indices par ville pour former l'indice général est basé sur le système de pondération de l'indice à tous les niveaux de la nomenclature : produits, section, classes, groupes, divisions, ensemble. - Les différents types de pondérations nécessaires pour le calcul des différents indices sont : - Pondérations pour chaque niveau de la nomenclature à l'intérieur des villes ; - Pondérations des villes pour chaque niveau de la nomenclature.

Monthly and annual average prices: Pour chaque ville, la moyenne arithmétique simple est utilisée pour le calcul des prix moyens par ville. Pour les variétés homogènes, la moyenne arithmétique pondérée est utilisée pour le calcul des prix moyens nationaux.

Seasonally adjusted indices: aucun ajustement pour les variations saisonnières.

Software used for calculating the CPI: Une application informatique est développée au niveau du HCP permettant de calculer et de valider mensuellement l'IPC.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: - les prix sont contrôlés par des tests de cohérence et les comparaisons des variations spatiales et temporaires - un dispositif régional est mis en place pour suivre et superviser le déroulement de l'enquête.

Control procedures used to ensure the quality of data processed: Des tests de contrôle et de validation de la cohérence est intégrée au niveau de l'application informatique. Des contrôles de vérification sont opérés sur les données traitées. Ces contrôles sont basés sur la comparaison de l'évolution des indices au niveau de chaque ville et au niveau national et à tous les niveaux de la nomenclature.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: L'indice est publié vers le 20 du mois suivant le mois de référence selon un calendrier préétabli à l’avance (NSDD).

Level of detailed CPI published

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

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

Restricted Access: Basic items

Separate indices published for specific population groups: Le simulateur des IPC par groupe de population est disponible sur le site du HCP.
Type of products for which average prices are calculated and disseminated: Les prix moyens sont calculés par ville et des prix moyens de détail observés pour certains produits dans la ville de Casablanca sont diffusés.

Documentation

Publications and websites where indices can be found: - Publication mensuelle de l'IPC : Annuaire statistique, bulletin statistique, Maroc en chiffre, Publication annuelle de l'IPC : Annuaire statistique, bulletin statistique

Publications and websites where methodological information can be found: www.hcp.ma

I: Other Information

Reported by the country in 2012.

México

A: Identification

Title of the CPI: Índice Nacional de Precios al Consumidor

Organisation responsible: Instituto Nacional de Estadística y Geografía (INEGI)

Periodicity: Mensual

Price reference period: Quincena de diciembre de 2010

Index reference period: Quincena de diciembre de 2010.

Weights reference period: 2008

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: Urban areas

Price collection: Urban areas
Population coverage: Resident households of nationals and resident households of foreigners in the country.

Population groups excluded: Institutional households.

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;
- 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);
- Occupational expenditures;
- Social transfers in-kind of goods and services from government and Non-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;
- Second hand goods purchased;
- 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);
- Other business-related expenditures

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: El INPC mide el cambio promedio de los precios de una canasta fija de bienes y servicios, representativa del consumo de los hogares urbanos del país a lo largo del tiempo.

Definition of consumption expenditures: El gasto de consumo se mide tomando en cuenta el valor de compra de los bienes y servicios; así, el gasto reportado corresponde en la mayoría de los casos al valor de los bienes "adquiridos", independientemente de que éstos hayan sido
pagados o no en el periodo de referencia. La encuesta reporta el gasto de consumo adquirido cuando la forma de pago es en efectivo o con tarjeta de crédito bancaria o comercial. Sin embargo, cuando los bienes fueron adquiridos bajo esquemas de crédito otorgados por los proveedores, sean éstos informales “fiados” o créditos formales, el gasto de consumo reportado corresponde al concepto de consumo pagado.

**Classification:** Clasificador de Consumo Individual por Finalidad (CCIF), Clasificador por objeto del Gasto, Clasificación Mexicana de Actividades Económicas (CMAE), Sistema de Clasificación Industrial de América del Norte 2007 (SCIAN-2007), Clasificador de parentesco del INEGI, Clasificador de lengua indígena INEGI, Clasificador de gasto de los hogares del INEGI.

**Weights include value of consumption from own production:** Yes

**Sources of weights:** Household expenditure surveys, national accounts, la encuesta de ingreso gasto de los hogares, no cubre el alcance requerido para todos los conceptos, por ello se recurrió a otras fuentes como Cuentas Nacionales, otras encuestas y la aplicación de técnicas estadísticas.

**Frequency of weight updates:** Above 5 years

**Price updating of weight reference period to the index reference period:** En la elaboración actual del INPC los periodos de referencia de las ponderaciones (2008 promedio mensual) y de los precios base (2a. quincena de diciembre de 2010) son diferentes y en consecuencia las ponderaciones se actualizaron vía precios relativos. La ponderación actualizada del genérico “j” a la 2a. quincena de diciembre de 2010 se obtiene multiplicando la ponderación inicial (obtenida de la ENIGH-2008) por el cociente del índice del genérico “j” entre el INPC (ambos a la 2a. quincena de diciembre de 2010).

**Weights for different population groups or regions:** Se obtiene ponderaciones para los siguientes grupos: a) Objeto del gasto; b) Clasificación del consumo individual por finalidades (CCIF); c) Origen de los bienes (SCIAN); d) Tamaño de localidad (grandes, medianas, chicas); e) Estrato de ingreso (4 Estratos); f) Durabilidad de los bienes (duraderos, no duraderos, servicios); g) Ciudad (46 ciudades); h) Región (7 regiones); i) Subíndices especiales: Subyacentes (mercancías y servicios) y No Subyacentes (agropecuarios y energéticos y tarifas autorizadas por el gobierno).

**D: Sample design**

**Sampling methods:**

**Localities:** Quota sampling (a priori fixing of the number of elements), Para el proceso de selección de productos se utiliza el muestreo de juicio tomando en cuenta la participación de cada concepto respecto al gasto total de los hogares, en una primera selección se encontraron, que de los 717 conceptos de gasto de la ENIGH-2008, 172 conceptos absorbían el 95% del referido gasto; por lo que para el 5% restante se siguió el criterio de que ningún rubro tuviera una participación inferior a 0.01%, y en su caso ir agrupando conceptos similares, cuya dinámica de precios sea parecida, llegando a un total de 283 productos genéricos. En cuanto al interior de éstos, también se utilizó el muestreo de juicio preguntando
a los establecimientos las variedades de los productos que mayor volumen de ventas tienen o cuáles son los preferidos por los consumidores. Para los establecimientos se realizó con base en el marco muestral elaborado por los Investigadores de Precios y con datos proporcionados por la ENIGH 2008. Las cadenas de comercios fueron seleccionadas a partir de listados directos obtenidos de la Asociación Nacional de Tiendas de Autoservicio y Departamentales (ANTAD) y Cámaras de Comercio; el resto de las tiendas denominadas especializadas ubicadas en centros comerciales o en colonias de las ciudades fueron seleccionadas mediante un muestreo de juicio.

_outlets_: Judgmental sampling, para el proceso de selección de productos se utiliza el muestreo de juicio tomando en cuenta la participación de cada concepto respecto al gasto total de los hogares, en una primera selección se encontraron, que de los 717 conceptos de gasto de la ENIGH-2008, 172 conceptos absorbían el 95% del referido gasto; por lo que para el 5% restante se siguió el criterio de que ningún rubro tuviera una participación inferior a 0.01%, y en su caso ir agrupando conceptos similares, cuya dinámica de precios sea parecida, llegando a un total de 283 productos genéricos. En cuanto al interior de éstos, también se utilizó el muestreo de juicio preguntando a los establecimientos las variedades de los productos que mayor volumen de ventas tienen o cuáles son los preferidos por los consumidores. Para los establecimientos se realizó con base en el marco muestral elaborado por los Investigadores de Precios y con datos proporcionados por la ENIGH 2008. Las cadenas de comercios fueron seleccionadas a partir de listados directos obtenidos de la Asociación Nacional de Tiendas de Autoservicio y Departamentales (ANTAD) y Cámaras de Comercio; el resto de las tiendas denominadas especializadas ubicadas en centros comerciales o en colonias de las ciudades fueron seleccionadas mediante un muestreo de juicio.

_products_: Judgmental sampling, para el proceso de selección de productos se utiliza el muestreo de juicio tomando en cuenta la participación de cada concepto respecto al gasto total de los hogares, en una primera selección se encontraron, que de los 717 conceptos de gasto de la ENIGH-2008, 172 conceptos absorbían el 95% del referido gasto; por lo que para el 5% restante se siguió el criterio de que ningún rubro tuviera una participación inferior a 0.01%, y en su caso ir agrupando conceptos similares, cuya dinámica de precios sea parecida, llegando a un total de 283 productos genéricos. En cuanto al interior de éstos, también se utilizó el muestreo de juicio preguntando a los establecimientos las variedades de los productos que mayor volumen de ventas tienen o cuáles son los preferidos por los consumidores. Para los establecimientos se realizó con base en el marco muestral elaborado por los Investigadores de Precios y con datos proporcionados por la ENIGH 2008. Las cadenas de comercios fueron seleccionadas a partir de listados directos obtenidos de la Asociación Nacional de Tiendas de Autoservicio y Departamentales (ANTAD) y Cámaras de Comercio; el resto de las tiendas denominadas especializadas ubicadas en centros comerciales o en colonias de las ciudades fueron seleccionadas mediante un muestreo de juicio.

_frequency of sample updates:_

_outlets_: Continuous (on a rotating basis)

_products_: La muestra se actualiza cuando se realiza un cambio de año base.
If sample updates are irregular indicate when last updates were introduced: La muestra de productos genéricos se actualizó para la 2a. quincena de diciembre de 2010, fecha en que se realizó el último cambio de año base.

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Se utiliza primordialmente muestreo dirigido para seleccionar, tanto las fuentes de información, como los productos específicos. Esto se realiza con base en marcos muestrales de fuentes y productos, información de la Encuesta en Hogares, estudios de mercado, contacto con asociaciones de productores y tiendas de autoservicio, etc. El proceso se valida por investigadores de precios y supervisores. En cuanto a las fuentes de información, se seleccionan los mercados, las tiendas de autoservicio, las tiendas departamentales, los comercios y los prestadores de servicios que son ampliamente preferidos por los consumidores de la localidad. La selección de productos específicos que deben formar parte de cada genérico, considera la oferta disponible en el mercado de cada uno de ellos.

Los componentes de la muestra de fuentes de información (cadenas, centros comerciales o tiendas especializadas) son independientes entre sí por lo cual puede haber superposición de zonas e inclusión de rubros característicos de una zona en otra.

La concentración de cotizaciones en pocos puntos de venta podría afectar las estimaciones. A fin de evitar esto y controlar el efecto de reemplazo de locales se buscó cierto equilibrio en la cantidad de observaciones de precios a realizar en cada uno, evitando las cotizaciones excesivas en pocos puntos de venta.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Para cada genérico se tienen criterios establecidos y documentados, para sustituir los productos específicos: esto es tanto por la desaparición del producto o de la fuente. Los investigadores de precios disponen de un catálogo de genéricos electrónico para consulta y medio de apoyo en la sustitución. El cual contiene las características generales, las diversas presentaciones, las marcas y las empresas que producen las variedades de los distintos productos o servicios.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 46, Outlets: 21,000, Price observations: 235,000

Frequency with which prices are collected: Alimentos, bebidas y tabaco se cotizan semanalmente; educación y seguros son mensualmente; las rentas de vivienda son semestrales; la tenencia (impuesto al uso del vehículo) es anual, y; el resto de los grupos (ropa, calzado y accesorios; etc.)

Reference period for data collection: 14 days (La Quincena de Estudio)

Methods of Price Collection

- Personal data collection for: casi la totalidad los productos son cotizados mediante visita al punto de venta.
- Telephone interviews for: hoteles, agencias de viajes y aerolíneas.
- Internet for: servicios turísticos en paquete y transporte foráneo.

Treatment of:

Discounts and sales prices: En el caso de descuentos y precios de rebaja, se consideran todas aquellas dirigidas al público general que no tienen ninguna condicionante en la cantidad mínima de compra o en la forma de pago. Así, se excluyen ofertas condicionadas como puede ser la entrega de una unidad de producto gratis en la compra de dos o más, en la adquisición de un producto distinto o la obtención de puntos en tarjetas de exclusividad.

Missing or faulty prices: Para Precios faltantes se extrapola utilizando la variación de los otros precios para el mismo artículo: de cotización semanal hasta por cuatro ocasiones consecutivas; de cotización quincenal hasta por tres ocasiones consecutivas; de cotización mensual hasta por tres ocasiones consecutivas; de cotización semestral hasta por tres meses consecutivas.

Period for allowing imputed missing prices: El tiempo máximo que se permite imputar un precio faltante es de dos quincenas. Para cada producto genérico se tienen criterios establecidos y documentados, para sustituir los productos específicos: esto es tanto por la desaparición del producto o de la fuente. Los investigadores de precios disponen de un catálogo de genéricos electrónico para consulta y medio de apoyo en la sustitución. El cual contiene desde las características generales, las diversas presentaciones, las diferentes marcas y las empresas que producen el artículo de remplazo.

Disappearance of a given type or quality from the market: Para cada producto genérico se tienen criterios establecidos y documentados, para sustituir los productos específicos: esto es tanto por la desaparición del producto o de la fuente. Los investigadores de precios disponen de un catálogo de genéricos electrónico para consulta y medio de apoyo en la sustitución.

Quality differences: Al presentarse un cambio en las características de los productos se llevan a cabo dos métodos de ajuste de calidad: El primero es un ajuste explícito, conocido como de costeo directo, que se aplica cuando se pueden valuar las características cambiantes, y es posible ajustar el precio del producto descontando o agregando a dicho precio el valor de los cambios. Este tipo de ajuste se aplica a los genéricos de computadoras, automóviles, servicios de educación y servicios turísticos en paquete. El segundo método se trata de un ajuste implícito, y es el de la imputación de la media global, el cual se aplica cuando no es posible valuar las características cambiantes del producto, y sólo durante el periodo en que se sustituye el producto anterior por el que presenta nuevas características.

Appearance of new items: En cualquier momento se pueden incorporar nuevos productos a nivel de específico, ya que para hacerlo no requiere la actualización de la estructura de ponderación. Durante el proceso de actualización de la estructura de ponderación, se aprovecha para introducir nuevos productos a nivel de genérico con su respectiva ponderación (en el periodo de introducción del nuevo producto se imputa con la media global del genérico al que fue asignado).

Treatment of seasonal items and seasonality
**Items that have a seasonal character and their treatment:** De acuerdo al producto que se trate se adoptan los siguientes procedimientos: i) Artículos alimenticios: Se captan los precios de aquellos alimentos estacionales solamente en los periodos de producción, y cuando desaparecen, se registra escasez y, en oficinas centrales, se imputa el precio en ese periodo; ii) Prendas de vestir y calzado: Se mantienen grupos de artículos propios para cada estación del año. De tal manera que en invierno, se consideran artículos apropiados de esa estación y en verano, se toman los correspondientes a dicha época. iii) Y para los genéricos de hoteles; colegios; renta de vivienda; vivienda propia; electricidad; cuotas de autopista; y seguro de automóvil se calcula mediante un precio promedio ponderado.

**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:** Imputación del precio, utilizando la variación de los precios de los artículos de temporada en la localidad o en su caso de la región.

**Treatment of housing**

**Treatment of owner-occupied housing:** Para el tratamiento de vivienda propia se adoptó un enfoque puro de renta equivalente. Lo anterior, consiste en construir el Índice de vivienda propia, utilizando los relativos de los tres estratos de las familias con ingresos de hasta 3 salarios mínimos, de 3 a 6 y más de 6, pero con ponderadores por estrato específicos para vivienda propia. Finalmente, se aplican las variaciones a los específicos de vivienda propia y entran como precios al cálculo del índice.

**Types of dwellings covered by the rent data:** Se calcula al menos cotizando 4 rentas del genérico “renta de vivienda” por quincena de los tres estratos de las familias con ingresos de hasta 3 salarios mínimos, de 3 a 6 y más de 6, con ponderadores por estrato específicos para vivienda propia. El tipo de vivienda cubierto es habitacional y su cotización se programa y distribuye la muestra de rentas equitativamente durante seis meses; esto quiere decir que el Investigador de Precios (IP) debe cotizar y reportar al menos 8 rentas por mes, completando un mínimo de 50 en el semestre.

**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:**

\[
I^{b:t} = \sum w_i^b I_i^{b:t}, \quad \text{with} \quad \sum w_i^b = 1
\]
En donde, \(w_i^b\) es la ponderación del genérico o agregado \(i\) obtenida con información de gasto levantada en el periodo \(b\).

**Formula of aggregating regional/population group indices into national index:** La fórmula que se utiliza para agregar los índices en categorías o grupos superiores es de tipo Laspeyres. La agregación a partir de los índices de genéricos se lleva a cabo mediante una media aritmética ponderada. Una vez calculados los índices elementales o de productos genéricos, se agregan en niveles superiores por subíndices y después los subíndices se agrupan para formar el INPC.

**Seasonally adjusted indices:** Los resultados son definitivos cuando se publican y no son ajustados por variaciones estacionales.

**Software used for calculating the CPI:** El software utilizado para el cálculo del Índice de Precios al Consumidor, es un sistema creado ex profeso para el IPC, está desarrollado en Delphi y la base de datos que se utiliza está en Sybase ASE.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** Para recopilación, captura, análisis, validación y generación de resultados se emplea un Sistema de Gestión de Calidad, con base en la norma ISO: 9001 2008, con lo que se asegura la calidad y mejora continua de los procesos. Durante la captura de las cotizaciones realizadas por los investigadores de precios el sistema informático detecta y señala los precios que no cumplen con los rangos de variación establecidos, lo que permite al mismo investigador realizar las correcciones necesarias. Una segunda verificación se realiza en oficinas centrales por los supervisores mediante el sistema informático. Las cotizaciones con algún posible error son revisadas cuidadosamente por los supervisores y ratificadas, vía telefónica, con los investigadores de precios.

**Control procedures used to ensure the quality of data processed:** Para recopilación, captura, análisis, validación y generación de resultados se emplea un Sistema de Gestión de Calidad, con base en la norma ISO: 9001 2008, con lo que se asegura la calidad y mejora continua de los procesos. Todas las etapas del proceso se validan y se controlan mediante herramientas sistematizadas y homogéneas que consisten en revisar la consistencia de las variaciones del periodo en estudio a todos los niveles de agregación, por producto, grupos de productos, ciudad, región hasta el Índice Nacional. Adicionalmente se dispone de un sistema en paralelo que calcula los índices de todos los niveles de agregación. Realizándose una confronta de resultados entre ambos.

**H: Documentation and dissemination**

**Level of detailed CPI published**

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

**Type of products for which average prices are calculated and disseminated:** El tipo de productos para los que se calculan y publican precios promedio es para 282 de los 283
genéricos (excepto el alquiler de vivienda) a nivel de variedad y Ciudad; y son aproximadamente 85000 productos y servicios mensualmente.

**Documentation**

**Publications and websites where indices can be found:** El INPC se publica los días 10 y 25 de cada mes en el Diario Oficial de la Federación, o el día hábil anterior en caso de que estas fechas sean sábado, domingo o día festivo. El día 25 del mes se publica el cálculo de la primera quincena del mes, el día 10 se difunde el que corresponde al dato mensual y a la segunda quincena del mes anterior

**Publications and websites where methodological information can be found:** Índice Nacional de Precios al Consumidor de la primer quincena de mayo de 2012

**I: Other Information**

Reported by the country in 2012.

**Moçambique**

**A: Identification**

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

**Organisation responsible:** Instituto Nacional de Estatística

**Periodicity:** Monthly

**Index reference period:** Dec.2010=100

**Weights reference period:** 2008/2009

**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, macroeconomic modelling and other analytic uses.

**B: CPI Coverage**

**Geographical Coverage**

**Weights:** Nation-wide

**Price collection:** Urban areas
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;
- Second hand goods purchased;
- 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: The CPI measures changes over time in general level of prices of goods and services that households acquire, (use or pay for) for the purpose of consumption. It is used as a general measure of inflation; indexation by government; indexation of wages and contracts; national accounts deflation; determining bank interest rates, exchange rates; economic policy & research.

Definition of consumption expenditures: Acquisition approach is used.
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: Weights are price updated every year.

Weights for different population groups or regions: No

D: Sample design

Frequency of sample updates:

Outlets: Annual

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Prices are collected locally from both official and unofficial markets. Luxury shops and small mobile shops (ambulates) which sell various products on streets are excluded from the sample of retail outlets. The number of representative items in the CPI basket varies between cities due to regional variation in consumption.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Product specifications are fully described in the price collection forms.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 3

Frequency with which prices are collected: Weekly for fresh items and monthly for other goods and services.

Methods of Price Collection

- Personal data collection for all items.

Treatment of:

Discounts and sales prices: Included, if not discriminatory.

Second hand purchases: Included (selling prices in the outlets are used).

Missing or faulty prices: Extrapolation by using the change of the other prices for the same item.
Period for allowing imputed missing prices: 3 months.

**Disappearance of a given type or quality from the market:** Two methods are used for permanently unavailable products i.e. either a replacement item is selected or the weight is redistributed.

**Quality differences:** Implicit quality adjustment methods are used.

**Appearance of new items:** New items are introduced in the CPI at the time of updating the basket of goods and services, i.e. when a new household budget survey is conducted.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** Fruits; when out of season, prices are estimated from other items with similar characteristics.

**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:** No seasonal clothing items.

**Method to impute the price of seasonal items:** Prices are imputed 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:** Rent data is collected annually and it covers all types of dwellings representative of the households.

**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:** Modified Laspeyres formula.

**Monthly and annual average prices:** Average prices within each provincial capital are computed as unweighted average (arithmetic averages) at the item level. The corresponding national average prices are computed as weighted averages of the provincial averages. Population figures are used as weights at this stage. Simple indices are computed at the city level as the relative of the current and the base average price, an analogue procedure is used to obtain the national indices on the item level.

**Software used for calculating the CPI:** Own software developed in collaboration with Statistics Portugal
G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: By supervision

Control procedures used to ensure the quality of data processed: By Data Analysis

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: 10 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 and Average prices

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

Type of products for which average prices are calculated and disseminated: Homogenous food products only.

Documentation

Publications and websites where indices can be found: Índice de Preço No Consumidor. Website: www.ine.gov.mz

Publications and websites where methodological information can be found: In revision

I: Other Information

Reported by the country in 2012.

Montenegro

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Statistical Office of Montenegro - MONSTAT

Periodicity: Monthly

Price reference period: Year t-1 = 100

Index reference period: Year t-1 = 100

Weights reference period: 2010
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.

Consumption expenditure includes:

- Food consumed away from home;
- Housing maintenance, minor repairs;
- 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)

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;
- Second hand goods purchased;
- Luxury goods;
- 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 is an indicator of average price changes of all products and services used by households for consumption. Its purpose is to calculate inflation as the main macroeconomic indicator. In addition to calculating inflation, it can be used for: harmonising prices of work in private contracts; harmonisation of earnings, pensions, social benefits, etc.; and as a deflator in the national accounts.

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

Weights for different population groups or regions: No

D: Sample design

Sampling methods:

Localities: Judgmental sampling

Outlets: Judgmental sampling

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

Frequency of sample updates:

Localities: Depends of market’s situation.

Outlets: Annual

Products: Annual

If sample updates are irregular indicate when last updates were introduced: 2012 (sample of localities expanded from 4 to 5 municipalities).

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Localities are chosen based on their significance in the country, which is determined by the number of inhabitants and their role in the geographic area (e.g. the capital region or county, or a major center).

Concerning the selection of outlets in selected localities, outlets with the highest turnover of products and services are selected. Outlet selection is purposive.

In the selected outlets, products that fit the descriptions in the product’s list and with high volume of sales are chosen.
E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 5, Outlets: 455, Price observations: 4,610

Frequency with which prices are collected: Prices for all goods and services are collected monthly.

Reference period for data collection: Food, non-alcoholic beverages, alcoholic beverages, tobacco and education, from 3rd - 9th of the month; Clothing, footwear, health and communications, from 10th to 13th of the month; Housing, water, electricity, gas and other fuels, furnishings, household equipment and routine maintenance of the house, miscellaneous goods and services, from 14th to 19th of the month; Transport, recreation and culture, from 20th to 23rd of the month; Restaurants and hotels, from 24th to 25th of the month; and central price collection on the 15th of the month.

Methods of Price Collection

- Personal data collection for all items.
- Telephone interviews for services.
- Internet for services.
- Official tariffs for electricity, fuels, tobacco, etc.

Treatment of:

Discounts and sales prices: Discounts are used in the calculation of the index.

Black market prices: Not collected.

Second hand purchases: Not included.

Missing or faulty prices: Previous observed prices are carried forward in case of missing or faulty prices.

Period for allowing imputed missing prices: 2 months after which the product should be replaced.

Disappearance of a given type or quality from the market: Once a product becomes permanently unavailable, it is replaced.

Quality differences: Quality adjustment methods used are i) Small changes in the product (packaging design) - any changes in price are calculated as a "pure" price changes. In this case the price of a new quality is directly compared with the price of the old quality, price changes are reflected in the index; ii) If the new product is significantly different from the old product - the whole change in prices is attributed to change in quality. It is assumed that the dynamics of prices of both products is the same and for that, overlapping method is used. In
this case there’s no change in the index at the time of substitution; iii) When it is evident that
the change in price is in line with the changing quality – in purpose of showing real price
increase it is necessary to estimate the actual price changes. Additional data are collected and
used to evaluate these changes. This estimation varies from case to case, there is no
prescribed procedure, and the way of assessment method depends of the available data.

**Appearance of new items**: When a new product gains a significant market share, its prices
are collected for one year, and included in the basket the following year.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment**: Fresh fruits, vegetables, and
clothing are treated as seasonal items.

**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**

**Types of dwellings covered by the rent data**: Types of dwellings covered by the rent data
are: i) One bedroom flat, unfurnished, suburb; ii) One bedroom flat, furnished, centre; iii)
Two bedroom flat, unfurnished, suburb; and iv) Two bedroom flat, furnished, centre. Rent
quotes are collected monthly from selected real estate agencies.

**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**: Laspeyres formula is
used to calculate monthly indices at higher-levels of aggregation. The formula is given by:

\[ I_m = \frac{\sum_{k} w_k i^m_k}{\sum_{k} w_k} \]

where \( w_k \) is weight, \( i^m_k \) individual monthly index of product \( k \).

**Monthly and annual average prices**: Monthly average price for Montenegro is calculated as
a weighted geometric means of monthly average prices of cities, using following formula:
\[ P_{m}^{m} = \left( \prod_{g} P_{gk}^{m} \right)^{1/s} \sum_{w_g} \]

Where \( P_{gk}^{m} \) is average monthly price for city \( g \), for product \( k \), \( P_{i}^{m} \) - monthly price for product in store \( i \), \( n \) - number of collected prices in city, \( w_g \) - weight of city, \( s \) – number of cities where the prices are collected. Average annual prices are calculated as a simple arithmetic means of average monthly prices.

**Seasonally adjusted indices:** No seasonal adjustment.

**Software used for calculating the CPI:** Self developed software (we are in process of creating new program for calculation of CPI by our IT sector)

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** Price controls are made by price collectors in the field, comparing the prices recorded in the current and the previous month. Data recorded on prices and explanations of price changes are submitted to the price unit in the capital city. After receiving the data, validation of data is performed for all recorded prices. If there is a need statisticians in price department contact price collectors, who then check "suspicious" prices by revisiting the field. In the case of products change, where necessary, adjustment of price changes is made by changes in quality.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** The CPI is published on the 15th day after the end of the reference month via website [www.monstat.org](http://www.monstat.org) (The lapsed time between the end of the field operation and the first publication of the index is approximately 10 days).

**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:** Annual average prices of some food products are published in the publication “Montenegro in figures”.

**Documentation**

**Publications and websites where indices can be found:**


I: Other Information

Reported by the country in 2012.

Mongolia

A: Identification

Title of the CPI: National Consumer Price Index

Organisation responsible: National statistical office Mongolia

Periodicity: Monthly

Index reference period: Dec.2005 =100

Weights reference period: 2010 Household Income and Expenditure Survey

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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Main cities/metropolitan areas/regions

Price collection: Main cities/metropolitan areas/regions

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: CPI is a measure of the average change in prices over time fixed in terms of quantity and quality of goods and services purchased by all consumers. The CPI reflects the collective experience of inflation for all households in a particular expenditure range and may not correspond to an individual household.
Classification: COICOP (Classification of individual consumption by purpose) in 12 groups

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Every 3-5 years

D: Sample design

E: Data Collection

Frequency with which prices are collected: Price data is collected monthly.

Reference period for data collection: The prices of the items in the main basket are collected between the 22nd and 28th of the reference month.

Methods of Price Collection

- Personal data collection for most of the items in the basket.

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: The modified Laspeyres index is used for the compilation of the CPI.

Monthly and annual average prices: Monthly average prices are estimated by the arithmetic mean.

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The consumer price indices are disseminated one week 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

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

Documentation
Publications and websites where indices can be found: Monthly Bulletin of statistics, NSO (Mongolian/English); Mongolian Statistical yearbook, NSO (Mongolian/English); Internet website: http://www.nso.mn/

Publications and websites where methodological information can be found: Brief technical notes accompany releases in the "Monthly Statistical Bulletin" and "The Mongolian Statistical Yearbook." The "Compendium of Selected Methodology and Classification Descriptions" contains a more detailed methodology description of the CPI calculation by district.

I: Other Information
Completed by ILO in 2013.

Myanmar

A: Identification

Title of the CPI: Consumer Price Index
Organisation responsible: Central Statistical Organization
Periodicity: Monthly
Price reference period: 2006
Index reference period: 2006
Weights reference period: 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.
Population groups excluded: Institutional households.
Consumption expenditure includes:

- Foods produced for own final consumption;
- Other goods 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;
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- Life insurance premiums;
- Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
- Social transfers in-kind of goods and services from government and No-profit institutions serving households.

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;
- Second hand goods purchased;
- Financial services (including fees for financial advice, brokerage fees);
- Interest payments (excluding mortgage interest payments);
- Gambling expenditure, gross of winnings;
- Investment-related expenditures (e.g. purchase of shares/stocks);
- Occupational expenditures;
- Other business-related expenditures;
- Expenditures abroad.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The CPI is used to measure price changes and to calculate inflation.

Definition of consumption expenditures: “Use” approach.

Classification: National classification of consumption expenditure.

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: No, not needed.

Weights for different population groups or regions: Weights for different population groups including regions as well as urban areas are compiled.

D: Sample design

Sampling methods:

Localities: Stratified sampling with simple random sampling in each stratum

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Items commonly used by every household are selected.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 80 township, Outlets: 3 outlets for one item, Price observations: 3 prices for one item

Frequency with which prices are collected: Price collection is 4 times per month.

Reference period for data collection: End of every week

Methods of Price Collection

- Personal data collection for all items.
- Telephone interviews for all items.

Treatment of:

Disappearance of a given type or quality from the market: Replacement

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Seasonal items are not included in the CPI basket.

Treatment of housing

Treatment of owner-occupied housing: Only house repair and maintenance are included.

F: Computation

Formula used for calculation of elementary indices: The arithmetic average of the price ratios (Carli index) (Direct form)

Formula to aggregate elementary indices to higher-level indices: Laspeyres formula
Formula of aggregating regional/population group indices into national index:  
Laspeyres formula

Monthly and annual average prices: Average prices are calculated monthly.

Seasonally adjusted indices: No seasonal adjustment.

Software used for calculating the CPI: Microsoft Excel

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Check and edit the price.

Control procedures used to ensure the quality of data processed: Check and edit the errors.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: 1 month after the end of the reference month.

Level of detailed CPI published

Paper publication: All items CPI

Online: All items CPI

Separate indices published for specific population groups: No

Type of products for which average prices are calculated and disseminated: Food products.

Documentation

Publications and websites where indices can be found: Statistical Year Book, Selected Monthly Economic Indicators, Internet website: http://www.csostat.gov.mn

Publications and websites where methodological information can be found: Selected Monthly Economic Indicators, March 2012.

I: Other Information

Reported by the country in 2012.

Namibia

A: Identification
Title of the CPI: National Consumer Price Index

Organisation responsible: Namibia Statistics Agency, and National Planning Commission

Periodicity: Monthly

Index reference period: December 2001 = 100


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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The CPI is a measure of the rate at which the prices of consumer goods and services change from month to month.

Classification: COICOP (Classification of individual consumption by purpose)

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

D: Sample design

Sampling methods:

Localities: Judgmental sampling

Outlets: Judgmental sampling

Products: Judgmental sampling

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Outlet selection: The selection of outlets is based on the experts knowledge of the markets and of their nature. The well-established outlets and big
department stores which are reasonably popular, easily accessible and located in densely populated areas are selected. The total number of outlets selected for regular pricing is approximately 650.

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Localities: 8, Outlets: 650, Price observations: 8,000

**Frequency with which prices are collected:** Prices of non-durable goods are collected monthly. School fees data is collected annually. Durable goods and services, rent and funeral services prices are collected quarterly.

**Reference period for data collection:** Price collection is done consistently, starting on the 2nd Monday of each month.

**Methods of Price Collection**

- Personal data collection

**Treatment of:**

**Missing or faulty prices:** Temporarily missing prices are carried forward.

Period for allowing imputed missing prices: 3 months after which a replacement item with similar characteristics is selected in consultation with the selling outlets. When items are replaced, base prices are adjusted.

**Appearance of new items:** New products are not included in the sample.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** Seasonal items are not included in the basket.

**Treatment of housing**

**F: Computation**

**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index) (Direct form)

**Formula to aggregate elementary indices to higher-level indices:** The computation of the NCPI is based on the long-term Laspeyres price index formula, using fixed weights.

**G: Editing and validation procedures**

**H: Documentation and dissemination**
Timeliness of dissemination of the CPI data: The index is published about 15 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

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

Documentation

Publications and websites where indices can be found: Namibia Consumer Price Index, Price Unit, CBS, in English; Statistical Abstract, CBS, in English, National Accounts, National Accounts Sub-Division, CBS, in English; Internet website:
http://www.npc.gov.na/cbs/

Publications and websites where methodological information can be found: Brief methodological notes can be found at http://www.nsa.org.na/28/7/Prices-and-Trade-Statistics/

I: Other Information

Completed by ILO in 2013.

Nauru

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Nauru Bureau of Statistics

Periodicity: Monthly

Index reference period: August 2008 = 100


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

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide
Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index (CPI) is a measure of the average change in prices over time of goods and services purchased by households.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Every 3-5 years

D: Sample design

E: Data Collection

Frequency with which prices are collected: Prices are collected each month across the Island.

Methods of Price Collection

- Personal data collection
- Publications

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

G: Editing and validation procedures

H: Documentation and dissemination

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

Documentation

Publications and websites where indices can be found: Consumer Price Index monthly report available at http://www.spc.int/prism/country/nr/stats/

I: Other Information

405
Nepal

A: Identification

Title of the CPI: National Urban Consumer Price Index

Organisation responsible: Nepal Rastra Bank (NRB)

Periodicity: Monthly

Index reference period: Mid July 2005/2006 = 100

Weights reference period: Mid-November 2005 – Mid-November 2006 Household Budget Survey

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 and computation of purchasing power of households.

B: CPI Coverage

Geographical Coverage

Weights: Urban areas

Price collection: Urban areas

Population coverage: Resident households of nationals.

Population groups excluded: One-person households and households with more than 8 persons, households obtaining more than 50 percent of consumption from their own production and households receiving less than 50 percent of their income in cash.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The National Urban Consumer Price Index (NUCPI) is the measure of the change in the level of prices of a fixed basket of consumer goods and services.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

Price updating of weight reference period to the index reference period: No, not needed.
D: Sample design

Sampling methods:

Outlets: Judgmental sampling

Products: Judgmental sampling

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Outlet and item selection: A market survey was conducted to determine consumer items, market areas, and outlets. Market areas and outlets where large numbers of consumers make their purchases were selected.

All items selected for pricing were specified during the market survey; specification includes size, weight, material used, workmanship, and other qualitative and quantitative features.

E: Data Collection

Frequency with which prices are collected: Prices are collected on a regular pricing cycle (weekly, monthly, quarterly; July/October/January/April; semi-annually, and annually.

Methods of Price Collection

- Personal data collection

- Official tariffs

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

Formula to aggregate elementary indices to higher-level indices: The modified Laspeyres formula is used for aggregating the elementary indices.

Formula of aggregating regional/population group indices into national index: The regional indices are obtained by aggregating town level indices using expenditure weights, and the national index is obtained by aggregating regional indices using population weights.

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI is normally released within 3 weeks after the reference month.

Level of detailed CPI published
New Caledonia

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Institut de la statistique et des études économiques

Periodicity: Monthly

Index reference period: December 2010 = 100

Weights reference period: 2008 Consumer Expenditure Survey and Household Budget Consumption (BCM)

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, 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.

Consumption expenditure excludes:
Mortgage repayments;
Gambling expenditure, gross of winnings

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The index of consumer prices is a measure of the evolution, over time, of general level prices of goods and services consumed by households resident in the territory. It is the economic indicator of inflation in a country.

Classification: COICOP (Classification of individual consumption by purpose) with 12 divisions.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Every 3-5 years

D: Sample design

E: Data Collection

Approximate number of localities, outlets and price observations: Price observations: 13,000

Frequency with which prices are collected: Prices of items are collected monthly and for fresh produce twice a month.

Methods of Price Collection

- Personal data collection

- Official tariffs

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

G: Editing and validation procedures

H: Documentation and dissemination

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation
Publications and websites where indices can be found: http://www.isee.nc/ipc/ipc.html

Publications and websites where methodological information can be found: A brief methodology can be found at http://www.isee.nc/ipc/ipc.html

I: Other Information

Completed by ILO in 2013.

New Zealand

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Statistics New Zealand

Periodicity: Quarterly and Monthly (food group only)

Price reference period: June 2006 Quarter

Index reference period: June 2006 quarter

Weights reference period: 2010

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 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 and resident households of foreigners in the country.

Population groups excluded: Institutional households (2%).

Consumption expenditure includes:

- Food consumed away from home;
- Purchase of owner-occupied housing;
• Housing maintenance, minor repairs;
• Second hand goods purchased (second hand cars 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;
• Life insurance premiums;
• Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
• Social transfers in-kind of goods and services from government and No-profit institutions serving households

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;
• 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);
• Gambling expenditure, gross of winnings;
• Investment-related expenditures (e.g. purchase of shares/stocks);
• Occupational expenditures;
• Other business-related expenditures;
• Expenditures abroad

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The consumer price index (CPI) measures the changing price of a fixed basket of goods and services purchased by New Zealand households. The selection and relative importance of the goods and services in the CPI basket represents the overall expenditure pattern of private New Zealand households.

Definition of consumption expenditures: Acquisition approach is used.

Classification: COICOP (Classification of individual consumption by purpose), but modified for New Zealand use.

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys, national accounts, consumer surveys, industry data, other government departments, New Zealand census, retail trade survey and customs data.
**Frequency of weight updates:** Every 3-5 years

**Price updating of weight reference period to the index reference period:** The expenditures in the weight reference period are price-updated to the price-reference period. This is done by applying price changes from the CPI to the expenditure. Whenever new goods and services are added to the basket, a substitute price index is selected, based on best judgement of how the prices have moved. For some specific products, the weights are also volume adjusted, to account for changes in purchasing behaviour between the weight reference period and the price reference period.

**Weights for different population groups or regions:** No

**D: Sample design**

**Sampling methods:**

*Localities:* Judgmental sampling

*Outlets:* Simple random, stratified sampling with simple random 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).

*Products:* Judgmental sampling

**Frequency of sample updates:**

*Localities:* Periodically

*Outlets:* Continuous (on a rotating basis)

*Products:* Continuous (on a rotating basis)

**If sample updates are irregular indicate when last updates were introduced:** The sample of localities was last reviewed in 2006.

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:** Judgmental sampling is used based on extensive research (including analysis of variation in price changes), using a variety of data sources including the household economic survey, market research data, industry data, and consultation with users and external experts via regular revision advisory committees.

**Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office:** If the specifications are loose, then the pricing officer chooses a specific item. This selection is guided by market share information. When the brand is considered less important to the consumers, a specification of “cheapest available” is used.

**E: Data Collection**
Approximate number of localities, outlets and price observations: Localities: 15, Outlets: 5,400, Price observations: 120,000

Frequency with which prices are collected: Weekly for fresh fruit and vegetables, motor fuels; Monthly for food and non-food groceries, eating out, cigarettes, alcoholic beverages, airfares; Annual for seasonal fashion items, school uniforms, primary, secondary and tertiary education, road user charges, local authority rates, water rates, cheque duty, solid fuel, outdoor furniture; Quarterly for the remainder of the basket.

Reference period for data collection: Weekly priced items are collected on Friday (where possible, Thursday in some localities). Monthly items are priced in the first and second week of each month. Quarterly postal prices are collected as at the 15th of the middle month of the quarter. Quarterly field collected prices are collected on weekdays between the first and 15th of the middle month of the quarter. Annually priced items are priced with the corresponding quarterly collections.

Methods of Price Collection

- Personal data collection for retail items, and some services such as car repairs, funerals etc.

- Mailed questionnaires for construction of houses, legal fees, insurance, household services, medical services, taxi/shuttle and bus/train fares, recreational activity subscription charges and entry fees, tuition, housing rentals, etc.

- Internet for airfares and package holidays, digital products (games, movies, books), refuse collection, pharmaceuticals, contact lenses, telecommunications rates, postal charges, free-to-air digital television receivers, cut flowers, sports event and concert admission, tuition charges, and online auction fees.

- Official tariffs for official documents (birth certificates), vehicle registration, local authority rates, and transfer fees, government financial service charges, and student loan service charges.

- Industry data and administrative data for fuel discounting schemes and housing New Zealand rents.

Treatment of:

Discounts and sales prices: These are taken if they are available at the time of price collection and are not clearance prices.

Black market prices: Not collected unless selected by chance in postal surveys.

Second hand purchases: Included for second-hand motor cars only. All sales of vehicles to households from a sample of dealers are included in a hedonic model to calculate the index. There are high net purchases of used cars by the household sectors, due to imports from Japan.

Missing or faulty prices: Carry forward the last observed price and class mean imputation for some items.
Disappearance of a given type or quality from the market: If a product is permanently missing, up to three suitable replacements are selected and, the back prices of the replacement product are collected when available. The “best” replacement product is based on similarity to the missing product and the market share, and is selected in the central office from the available options. If no suitable replacement can be found at that outlet, a new outlet is selected.

Quality differences: Quality adjustments are undertaken whenever a quality change is detected in a product being priced, so that the index reflects only the pure price change. When prices are collected, data is collected on the quality, quantity and other relevant features to enable accurate quality adjustments when required.

Explicit quality adjustments: Procedures to account for changing pack sizes. A common example of a quality adjustment is related to a change in pack size. For example, tea bags usually sold in boxes of 100 bags may come with 10 percent extra due to a promotion run by the distributor. In this case, consumers receive the benefit of an extra 10 bags, hence the recorded price would be adjusted to reflect the value to the consumer of the extra tea bags. Similarly, 'quantity specials' are also taken into account. For example, if a loaf of white bread was $2.00 in March 2011, and three loaves of white bread were $4.80 in April 2011 (the single price remained $2.00), then the price per loaf has decreased from $2.00 to $1.60, hence a 20 percent fall in price would be shown. These promotions are usually temporary, and the price might revert back to $2.00 in May 2011, at which point the price series is adjusted again. Such quantity specials are used only where they are considered to be representative of the quantities likely to be purchased by households.

New cars: Prices for new cars are one area where explicit quality adjustments are applied. When distributors report changes to the models being sampled, Statistics NZ asks for the ‘perceived’ dollar value of these changes to customers. To ensure the adjustments are consistent, they are checked against records of previous adjustments. When there are changes to the engine, Statistics NZ estimates the value of the quality change, based on maximum power and torque. The values of all changes between the two models are combined – in practice, this sometimes means an improvement and a removal of a feature cancel each other out. Most quality adjustments to new car prices are made to remove the effect of improved or additional features, which increases the quality of the vehicle. In these cases, the value of the changes is removed from the retail price of the updated model to generate the quality adjusted price. If, on the other hand, the quality adjustment is due to a removed or diminished feature, the value of the changes is added to the retail price of the updated model. In the 10 years from 2001 to 2011, most adjustments for lower quality were due to reductions in engine power or torque.

Option cost method: A method used for some products, is to base quality adjustments on the market value of optional features, or a proportion of the market value of optional features. This method is used for desktop computers.

Hedonic regression models: Statistics NZ uses a statistical technique called hedonic regression to calculate the price index for used cars. The method was implemented in the September 2001 quarter. A used car can be seen as comprising a bundle of price-determining characteristics. Once these characteristics are identified and measured, the hedonic function can be interpreted as breaking down the car’s price into the implicit prices and quantities of each characteristic. The price index can then be derived from the estimated price over time,
after controlling for the changing quality composition of the cars being sold from quarter to quarter.

Implicit quality adjustments: For some products, quality is implicitly controlled by calculating price change based only on products which are available in consecutive time periods. The 'product or outlet change' section described methods used when products are unavailable. If a product is unavailable for two consecutive time periods, and it is deemed unlikely to be stocked again, then a suitable replacement product, identified at the first instance of unavailability, will be used as a permanent replacement. Any difference in price between the original and the replacement products is assumed to reflect a difference in quality. This technique is called the 'overlap' method. For rapidly changing products, such as flat-panel television sets, a quality assessment is required whenever a model is superseded and replaced. The 'comparable replacement' method is used when the replacement product is judged to be very similar in quality to the old product, such as a newer model with only small superficial changes. In this case, any change in retail price between the old and new models is shown in the price index. When the replacement is judged to be of different quality to the old product, the method used is to infer the pure-price movement from products that are directly comparable from within the same geographic region as the product being replaced. This is called the 'class mean imputation' method.

Appearance of new items: New items are considered for inclusion based primarily on expenditure shares and are introduced at the three-yearly reviews of the basket and weights. New items (“revolutionary” rather than “evolutionary”) are occasionally introduced between three-yearly reviews and are handled on a case-by-case basis. Updated versions of previously available items are included during the between-review period by reweighting the elementary aggregates based on available expenditure data.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Clothing, fresh fruits and vegetables, airfares and accommodation have a seasonal character. No seasonal adjustments are made in the New Zealand CPI. Until June 2006, prices were seasonally adjusted for fresh fruit and vegetable prices. Fresh fruits, vegetables, airfares and accommodation are all have fixed weights and price collection continues throughout the year. Seasonal fashion, such as summer skirts and winter jackets, are priced annually at the beginning of the summer and winter fashion ‘seasons’. The pricing officers aim to collect the latest version of the seasonal items. The weights are kept constant throughout the year.

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: The method used to impute price development in out-of-season periods is carrying forward the last observed price.

Treatment of housing
Treatment of owner-occupied housing: Under the net acquisition approach, the expenditure weight allocated to purchase of housing represents the value of the net increase in the stock of owner-occupied housing during the weight reference period. Expenditure on newly constructed dwellings by owner-occupiers is included, as are any net shift between owner-occupied dwellings and rental properties, and alterations and additions to established owner-occupied dwellings. The expenditure weight is based on a 3-year average, rather than the one-year expenditure. The method used in the 2006, 2008, and 2011 CPI reviews involved applying an average new private dwelling value to the estimated net change in the number of owner-occupied dwellings, then adding an estimate of owner-occupiers' share of the value of residential building additions and alterations to established dwellings. Each quarter, respondents are asked to provide a quote for a house plan that they build fairly regularly. Weighted arithmetic mean prices are calculated for each broad region with each quote representing the number of consents issued per year to the master builder, rated up to reflect all consents issued to master builders and to other builders. Mortgage interest payments are not included in the main CPI index. They are included in a released analytical series called “CPI all-groups plus interest”.

Types of dwellings covered by the rent data: Rent data include: 1) private and local authority rentals, 2) State rentals and 3) educational accommodation. 1) Only unfurnished properties are included in the sample, so as to exclude any impact of quality change in furnishings. Rental information (rent and rent frequency) and number of bedrooms are collected quarterly from landlords in the sample. At the March 2012 quarter, there were around 1,200 respondents for the Quarterly Rental Survey, providing rents for around 2,700 dwellings. Average weekly rent for each dwelling type – one, two, three, four, and more than four bedroom dwellings – is calculated for each of five broad regions (Auckland, Wellington, the rest of North Island, Christchurch, and the rest of South Island). The quarterly price movements used in the calculation of the CPI are based on a matched sample of rental dwellings that are common to both the current and previous quarters, to help ensure that changes in the size or composition of the sample of dwellings does not affect the CPI; 2) Direct contact is made with Housing New Zealand Corporation (HNZC) for the price indicator for state rentals. Information is obtained each quarter on the geographic location of each dwelling, number of bedrooms, market rent and income-related rent. As direct contact is made with HNZC, a full list of about 65,000 properties is obtained and monitored on an ongoing basis; 3) Fees are collected by postal survey from about 40 secondary school boarding hostels.

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: Laspeyres formula.

Formula of aggregating regional/population group indices into national index: Regional average prices from each of the 15 regions are combined into the New Zealand index for each item. Price-updated expenditure shares (based on population weights for each region) are summed to create a national product total. The movements in this total are used to calculate a New Zealand index. Each region is assumed to have the same spending pattern i.e. national
expenditure weights are used in each region. The exceptions to this are reticulated gas and suburban rail services which are not available in all regions. The 2011 weights were derived by assigning the usually resident population of each regional council area (at June 2010) to the CPI pricing centre(s) within the region. Three regional council areas, Bay of Plenty, Manawatu-Wanganui, and Canterbury, have two pricing centres each. The proportion of the regional council area population allocated to each pricing centre was based on the population of the pricing centre's territorial authority. Four regions do not have a pricing centre. Their populations were allocated to the nearest pricing centres. The Gisborne region's population was allocated to the Napier-Hastings pricing centre, and the Marlborough, Tasman, and West Coast regions were allocated to the Nelson pricing centre.

**Monthly and annual average prices:** Calculated by applying index movements to weighted average prices, calculated using either the Jevons or Dutot formula, for the June 2006 month or quarter. These are not statistically accurate measures of average transaction price levels, but do provide a reliable indicator of percentage changes in prices.

**Seasonally adjusted indices:** No

**Software used for calculating the CPI:** GIFT (Generalised Index Facility Toolbox) – a custom system developed by Statistics New Zealand.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** When the prices are collected, they are compared to the previous prices, and any large changes are confirmed with the outlet staff. For postal surveys, central office staff contacts respondents by telephone if there are any queries. Before data is entered into the computer system, it is examined closely by staff in the central office. They check for unusually large movements up or down, movements against the trend, and places where a quality adjustment may need to be made or data-entry errors may need to be corrected. Each region is assigned to a different editor for each price collection period, to ensure there is consistency in this process. There are weekly quality assurance meetings to discuss and resolve any issues encountered. Where adjustments are made, calculations and implementation into GIFT are peer-reviewed.

**Control procedures used to ensure the quality of data processed:** There are four quality gates in data processing. 1) Micro-edits and macro-edits: In a micro-edit, prices for each individual price collection are compared to the prior pricing period. Each commodity has an acceptable movement range (tolerance). Any item which moves by more than its allowed tolerance is checked. A macro-edit is also used to check fruit and vegetable prices, as well as the top ten CD and book prices. Each price is compared with the average price for that specific item. Outliers are checked and corrected if need be; 2) The regional average prices are generated for each commodity. These regional averages are checked against each other and the national average for unusual movements; 3) The index is calculated and each item’s index point contribution is assessed. This is based on the weight of the item and the size of the price movement. Any unusual movements are checked and any needed corrections are made; 4) The entire data set is evaluated in several meetings. Weekly quality assurance meetings are held to discuss and resolve any issues. A data confrontation meeting is held before each release. This meeting confronts the movements in the index with real-world
events, and to check that they make sense and tell a consistent story. Where adjustments are made, calculations and implementation into GIFT are peer-reviewed.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** Release is on the 12th working day of the first month after the reference quarter. There is a 2-month lapse between the quarterly collections and release, and a 1-month lapse between the last monthly pricing and release and a 2-week lapse between the last weekly pricing and release.

**Level of detailed CPI published**

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

**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:** Food products, alcoholic beverages and tobacco products, socks, pantyhose, dry-cleaning services, a range of household maintenance products, non-food grocery items, examinations by medical professionals, motor fuel, car battery and road worthiness inspection, postage, CD of one of the current top 10 albums, overnight DVD movie hire, printer paper, hairdressing services.

**Documentation**

**Publications and websites where indices can be found:** As soon as embargo is lifted, the information and media releases related to the CPI can be found online: [http://www.stats.govt.nz/browse_for_stats/economic_indicators/CPI_inflation/info-releases.aspx](http://www.stats.govt.nz/browse_for_stats/economic_indicators/CPI_inflation/info-releases.aspx). All index time series released are available online [http://www.stats.govt.nz/infoshare/](http://www.stats.govt.nz/infoshare/) under “Economic Indicators” and then “Consumers Price Index – CPI”. Reporters and the public are invited to a media conference for each publication, and the results are usually available in the next hard-copy publication the largest newspapers in the country – Dominion Post and the New Zealand Herald. The key results are usually available on the online editions of these websites as soon as embargo is released (for example stuff.co.nz).


**I: Other Information**

Reported by the country in 2012.
Nicaragua

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Central Bank of Nicaragua

Periodicity: Monthly

Index reference period: 2006 = 100


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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Population groups excluded: Institutional households.

Consumption expenditure includes:

- Foods produced for own final consumption;
- Other goods produced for own final consumption;
- Services produced for own final consumption;
- Housing maintenance, minor repairs;
- Major repairs, conversions and extensions to owner occupied housing

Consumption expenditure excludes:

- Mortgage repayments;
- Mortgage interest

C: Concepts, definitions, classifications and weights
**Classification:** COICOP (Classification of individual consumption by purpose) with 12 divisions.

Weights include value of consumption from own production: Yes

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

**D: Sample design**

Sampling methods:

*Outlets:* Judgmental sampling

*Products:* Judgmental sampling

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Item selection: To select goods and services, the percentage participation of each of the goods and services in total household expenditure is calculated. Total household spending is defined by excluding those items not considered in the spending households

Outlet selection is based on the size of each of the cities, the degree of concentration of facilities in specific areas, and the number of markets, supermarkets and other establishments reporting.

**E: Data Collection**

Approximate number of localities, outlets and price observations: Outlets: 8,496, Price observations: 41,888

Frequency with which prices are collected: Price collection is monthly except for fruits and vegetables which is weekly.

Reference period for data collection: Price collection is done between 1st and 28th of each month excluding Saturdays and Sundays.

Methods of Price Collection

- Personal data collection

- Mailed questionnaires

- Internet

- Official tariffs for telephone companies, water services, electricity, public passengers transport, National lottery.
Treatment of:

Discounts and sales prices: Discount prices with limited quantities and prices or special offers for joint products (e.g. bottle of rum accompanied by a glass) are not included. Discriminatory sales are also not taken into account.

Missing or faulty prices: Missing prices are estimated using an imputation procedure. The imputation of missing prices is considered if “no price” is due to a temporary absence or permanent absence. The temporary absence may refer in particular to an informant establishment (establishment level range), or temporary or seasonal reasons. The permanent absence relates to changes in supply or transfer of the facility (range facility) or disappearance of the variety on the market (level of variety).

Quality differences: Indirect or implicit methods are used to adjust for quality changes in the new CPI calculation. Among these are: Overlap (measures the ratio between the price of the previous and replacement cost in the common period of overlap); Allocation; comparable replacement, and keeping the product price above.

Treatment of seasonal items and seasonality

Treatment of housing

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: The CPI for each geographic area is calculated from the item level to the National CPI general level, with the Laspeyres formula:

\[ f' = \frac{\sum_k q_k^0 \cdot p_k^t}{\sum_k q_k^0 \cdot p_k^0} = \sum_k W_k^0 \left( \frac{p_k^t}{p_k^0} \right) \]

with

\[ W_k^0 = \frac{q_k^0 \cdot p_k^0}{\sum_k q_k^0 \cdot p_k^0} \]

where

\( W_k \) = weight of item \( k \) as a percentage of the total weight
\( p_k^t \) = average price of item \( k \) in current period \( t \)
\( p_k^0 \) = average price of item \( k \) in the base period
\( q_k^0 \) = quantity of item \( k \) in the base period
\( t \) = current period
\( 0 \) = base period
G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: During price collection, quality control is done by the supervisor, and then data is passed to the head of the field and office analysts. The objective of this task is to assist the interviewer in the correct assignment of the price of a good or service requested and at the same time, verifying data considered atypical.

Control procedures used to ensure the quality of data processed: Possible errors are checked during price recording and the error report is passed to control supervisors who correct it through a swift investigation into the source, which often involves new field trips. Subsequently, the analyst continues with the automated processing of information, which is to accept or reject a replacement, and proceed with the allocation and calculation of the index.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI is disseminated not later than 15 days after the end of the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation


Publications and websites where methodological information can be found: A methodological note entitled "Índice de Precios al Consumidor, Base 2006=100 (Nota Metodológica)”, in Spanish is available at http://www.bcn.gob.ni/publicaciones/metodologias/index.html?&val=0

I: Other Information

Completed by ILO in 2013.

Niger

A: Identification

Title of the CPI: Indice Harmonisé des Prix à la Consommation (IHPC)
Organisation responsible:
Direction des Statistiques et des Etudes Economiques

Periodicity: Monthly

Price reference period: 2008

Index reference period: 2008

Weights reference period: 2012

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: Main city (can include surrounding areas)

Price collection: Main city (can include surrounding areas)

Population coverage: Resident households of nationals.

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;
- Housing maintenance, minor repairs;
- Second hand goods purchased;
- Luxury goods;
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- Gambling expenditure, gross of winnings;
- Expenditures abroad

Consumption expenditure excludes:

- 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;
• Financial services (including fees for financial advice, brokerage fees);
• Interest payments (excluding mortgage interest payments);
• Life insurance premiums;
• Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
• 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

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: Instrument de mesure de l’évolution des prix entre une période dite de référence ou période de base et une période dite courante. L’IPC sert aussi à calculer l’inflation.

Definition of consumption expenditures: On entend par dépenses de consommation, toutes les dépenses que les ménages font pour leur consommation en biens et services.

Classification: Nomenclature de Consommation Ouest Africaine (NCOA) dérivée de la COICOP.

Weights include value of consumption from own production: Yes

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years


Weights for different population groups or regions: Non

D: Sample design

Sampling methods:

Outlets: Simple random, judgmental sampling

Products: Simple random, Judgmental sampling

Frequency of sample updates:

Outlets: Annual

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: La bonne couverture des biens et services de consommation.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: L’importance et la disponibilité du produit.

**E: Data Collection**

Approximate number of localities, outlets and price observations: Localities: 1, Outlets: 1,200, Price observations: 6,000

Frequency with which prices are collected: Variétés homogènes-journalière, Variétés hétérogènes-hebdomadaire, Loyer- mensuel, Eau, Electricité, Communication-mensuelle.

**Methods of Price Collection**

- Personal data collection for: variétés homogènes et variétés hétérogènes
- Official tariffs for: eau, electricité, communication.

**Treatment of seasonal items and seasonality**

Items that have a seasonal character and their treatment: Tous les produits frais (fruits, légumes, poissons).

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.

**Treatment of housing**

**F: Computation**

Formula to aggregate elementary indices to higher-level indices: Laspeyres prix.

Software used for calculating the CPI: CHAPO+ PROCESS, PHOENIX

**G: Editing and validation procedures**

**H: Documentation and dissemination**

Timeliness of dissemination of the CPI data: 10 jours au plus après la fin du mois sous revue.

Level of detailed CPI published
Paper publication: All items CPI, Division-level (12 Divisions), Group-level app. 40 groups, Class-level (100 classes), Basic Items and Average prices.

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

Documentation

Publications and websites where indices can be found: 6 pages + note explicative, site internet de l’INS.

Publications and websites where methodological information can be found: IHPC d’avril 2012 et sites d’AFRISTAT et de la commission de l’UEMOA.

I: Other Information

Reported by the country in 2012.

Nigeria

A: Identification

Title of the CPI: Country Composite Index

Organisation responsible: National Bureau of Statistics

Periodicity: Monthly

Index reference period: November 2009 = 100


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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.
**Population groups excluded:** Institutional households.

**Consumption expenditure includes:**

- Foods produced for own final consumption;
- Other goods produced for own final consumption;
- Services produced for own final consumption

**C: Concepts, definitions, classifications and weights**

**Definition of the CPI and its objectives:** The consumer price index measures changes in the average level of retail prices paid by consumers, through time.

**Classification:** COICOP (Classification of individual consumption by purpose)

**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 are price updated from the weight reference period to the index reference period.

**Weights for different population groups or regions:** Weights for the urban and rural areas are computed.

**D: Sample design**

**Sampling methods:**

- **Outlets:** Sampling with probability proportional to size (PPS)
- **Products:** Judgmental sampling

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:**

**Locality and outlet selection (Urban areas):** A locality is urban if it has an estimated population of not less than 20,000 persons. The selection of price collection towns is done by the state. In each state, a state capital is chosen with certainly at most two other centres from the remaining other towns. In each selected urban town, open markets are chosen and the number ranges from 2 - 6. The markets within the towns are selected so that the large, medium and small ones all have chances of representation. For the supermarkets and other outlets, a listing is carried out. The compiled frame is stratified using employment size.

**Locality and outlet selection (rural areas):** The selection ensures adequate geographic coverage of the state and there is a fixed number of enumeration areas chosen. Most purchases are made in open markets; consequently the open market in the selected
enumeration area becomes the pricing outlet. Where there is no market, the nearest one to the enumeration area becomes the pricing outlet.

**E: Data Collection**

**Frequency with which prices are collected:** The frequency of price collection is determined by the degree of fluctuations in the prices of the items as below; major food items (market inquiry) - once/week, major food items (physical purchase) - fortnightly, processed foods - once/week for state capitals, once/monthly for other centres, drinks and tobacco - once/week for state capital, once/monthly for other centres, other goods and services - Monthly.

**Methods of Price Collection**

- Personal data collection
- Official tariffs

**Treatment of:**

**Missing or faulty prices:** When a product is temporarily unavailable, the current price is estimated by utilizing the price change of other varieties of the item having prices in both current and previous periods to update the price of the missing variety.

**Disappearance of a given type or quality from the market:** When a product becomes permanently unavailable, a close substitute is priced at the same period as the disappearing product. The substitute is introduced in the CPI by estimating a base period priced for the substitute. The assumption is that the old and the substitute varieties of the item experience the same price change between the base and the current period.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** When a product disappears due to seasonality, the price is estimated as indicated for temporary products. However, the last price is held constant if a similar variety does not exist.

**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.

**Method to impute the price of seasonal items:** The method used to impute price development in out-of-season periods is carrying forward the last observed price.

**Treatment of housing**

**Treatment of owner-occupied housing:** Rents are imputed for owner occupier dwellings during the National Consumer Survey. Rents of similar dwellings and in the same locality are employed for the imputation.

**F: Computation**
Formula used for calculation of elementary indices: The ratio of arithmetic mean prices (Dutot index) (Direct form)

Formula to aggregate elementary indices to higher-level indices: The standard Laspeyres index number formula is used in the calculation of the index number. The mathematical representation of the formula is given by:

$$ I = \frac{\sum P_n q_0}{\sum P_0 q_0} $$

where \( P_n \), \( P_0 \) are prices at period \( n \) and \( 0 \) respectively, and \( q_0 \) is the quantity at time \( 0 \) the base period. The quantity \( q \) is difficult to obtain in practice but the value of the expenditure on a commodity \( P_0 q_0 \) is relatively easier to obtain. Thus the above formula is expressed as:

$$ I = \sum \left( \frac{P_0 q_0}{\sum P_0 q_0} \right) \frac{P_n}{P_0} = \sum W_0 r_n $$

where \( r_n = \frac{P_n}{P_0} \) is the price relative for time \( n \) and \( W_0 = \frac{P_0 q_0}{\sum P_0 q_0} \) are the expenditure weights.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: The field enumerators are trained and retrained so as to know how to read scales and adhere to established procedures in order to minimize sampling and procedural errors. The scrutiny staff are also trained to recognize the recording errors. In addition NBS has various levels of field checks and controls which include: i) the zonal offices who coordinate field operations including spot checks and monitoring of the states within zones; ii) the state officers who are responsible for all the field work in their states; and iii) the price supervisors who monitor the activities of the price enumerators.

Control procedures used to ensure the quality of data processed: During processing two methods are employed to ensure quality data: i) manual editing which is done to eliminate problems of the priced data from the field. Each price form is well scrutinized by experienced staff; ii) Computer editing: a) Valid codes - The item codes, centre codes and enumeration areas’ codes are important variables that are checked to ensure data consistency. A combination of database special editing facilities and programs are established to ensure that only valid codes are acceptable; b) Exclusion of unrealistic prices. Dynamic price ranges are specified for each item and prices outside the specified range are excluded. The process is automated but the ranges are to be determined.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI in form of statistical news is released about 1 month after the month of prices survey.

Level of detailed CPI published
**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**


**Publications and websites where methodological information can be found:** The major methodological document covering the consumer price index is “Consumer Price Index, Development of Methodology in Nigeria” published by the Federal Office of Statistics and available from the information office in Lagos, Price 50 Naira. In addition, a brief CPI methodological document is available at [www.unece.org/stats/documents/ece/ces/ge.22/2006/mtg2/sp.5.e.pdf](http://www.unece.org/stats/documents/ece/ces/ge.22/2006/mtg2/sp.5.e.pdf)

**I: Other Information**

Completed by ILO in 2013.

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**Niue**

**A: Identification**

**Title of the CPI:** Consumer Price Index

**Organisation responsible:** Statistics Niue

**Periodicity:** Quarterly

**Index reference period:** 2003 = 100

**Weights reference period:** 2002 Household Income and Expenditure Survey.

**Main uses of CPI:** Main inflation indicator used for monetary policy.

**B: CPI Coverage**

**Geographical Coverage**

**Weights:** Main city (can include surrounding areas)

**Price collection:** Main city (can include surrounding areas)
Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: Consumer Price Index (CPI) measures changes in the prices of goods and services that households consume.

Frequency of weight updates: Above 5 years.

D: Sample design

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 30

Methods of Price Collection
- Personal data collection
- Official tariffs

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI is disseminated 7 days after the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation

Publications and websites where indices can be found: CPI data can be found at http://www.spc.int/prism/niue/index.php/economic/consumer-price-index/cpi-summary

I: Other Information

Completed by ILO in 2013.
Northern Mariana Islands

A: Identification

Title of the CPI: Consumer Price Indices for Saipan, Rota and Tinian

Organisation responsible: Centrals Statistics division, CNMI Department of Commerce.

Periodicity: Quarterly

Index reference period: September third Quarter 2009 = 100


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

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The CPI is a measure of the quarterly changes in prices of a "basket" of goods and services, which are a representative of purchases by private households in the CNMI.

Classification: Classification of the items included in the CNMI’s is according to BLS classification system with 9 major groups.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Every 3-5 years

D: Sample design

Sampling methods:
Outlets: Judgmental sampling

Products: Sampling with probability proportional to size (PPS)

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Item selection: The “Probability Proportional to Size” sampling method was used to select a new item sample. The technique ensured that those items with the highest monthly household expenditures were selected in the sample. The sample included a total of 161 items for Saipan, 147 for Tinian, and 129 for Rota.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 3, Outlets: 170- Saipan, 30 -Tinian and 60 - Rota

Methods of Price Collection

- Personal data collection
- Official tariffs

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: Aggregation of elementary indices to higher-level indices is by the Laspeyres formula. The Laspeyres formula is expressed as:

\[ I_t = \frac{\sum_{i=1}^{n} P_t Q_0}{\sum_{i=1}^{n} P_0 Q_0} \times 100 \]

where

- \( I_t = \) The index at time point \( t \)
- \( P_t = \) The price at time point \( t \)
- \( P_0 = \) The price at the base period
- \( Q_0 = \) The quantity at the base period
- \( n = \) The number of commodities being priced
- \( i = \) Commodity \( i \) (where \( i \) goes from 1 to \( n \))

G: Editing and validation procedures

H: Documentation and dissemination
Level of detailed CPI published

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**

**Publications and websites where indices can be found:** Consumer Price Index, Quarterly publication; CSD website: [http://commerce.gov.mp/divisions/central-statistics/](http://commerce.gov.mp/divisions/central-statistics/)

**Publications and websites where methodological information can be found:** CPI explanatory notes can found in the quarterly CPI bulletins which are available at CSD website; [http://commerce.gov.mp/divisions/central-statistics/](http://commerce.gov.mp/divisions/central-statistics/)

**I: Other Information**

Completed by ILO in 2013.

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**Norway**

**A: Identification**

**Title of the CPI:** National Consumer Price Index

**Organisation responsible:** Statistics Norway

**Periodicity:** Monthly

**Index reference period:** 1998 = 100

**Weights reference period:** Average expenditure shares of the last 3 calendar years.

**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, macroeconomic modelling and other analytic uses.

**B: CPI Coverage**

**Geographical Coverage**

**Weights:** Nation-wide

**Price collection:** Nation-wide

**Population coverage:** Resident households of nationals.
C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: Consumer price index reflects changes in the cost of acquiring a basket of goods and services that may be fixed or changed at specified intervals, such as yearly.

Classification: COICOP (Classification of individual consumption by purpose) and classification by delivery sector.

Sources of weights: National accounts.

Frequency of weight updates: Annual

Price updating of weight reference period to the index reference period: Price adjustments of weights are not done, as annual weight changes are implemented.

Weights for different population groups or regions: Regional weights are computed.

D: Sample design

Sampling methods:

Outlets: Sampling with probability proportional to size (PPS)

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:

Products: Annual

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: A sample of about 810 goods and services is selected. The goods and services are selected based on information from the household budget survey, branch information and market research data. The prices are collected from a sample of outlets, households and municipalities.

Outlet selection: The outlets/ firms are selected from Statistics Norway's Business Register. The selection is made after stratifying the population by industry and region. The probability to be selected is proportional to the size of the turnover. One sixth of the outlets in the sample are replaced each year, which means that each outlet remains in the sample for six years.

Sample sizes: Each month approximately 330,000 price observations are obtained from a sample of about 2,500 outlets/ firms. The sample of households for the survey of rents amounts to 1,300 tenants.

E: Data Collection
Approximate number of localities, outlets and price observations: Outlets: 2,500, Price observations: 330,000

Frequency with which prices are collected: Prices are collected monthly.

Reference period for data collection: Prices are collected on the 15th of each month.

Methods of Price Collection

- Mailed questionnaires
- Telephone interviews for rent.
- Scanner data
- Internet for electricity and centrally priced products.
- Official tariffs
- CATI for rentals for tenants.

Treatment of:

Black market prices: Illegal goods and services are excluded.

Missing or faulty prices: Missing prices are imputed. Different algorithms are used when estimating missing prices. One option is to impute the average price observed of the same product on either regional or national level. A second option is to impute a price based on changes in prices from previous month of the same product or a group of products either on regional or national level.

Disappearance of a given type or quality from the market: When a good or service goes out of the market, the outlets are instructed to find a replacement of similar quality and mark it in the questionnaire.

Quality differences: Information received from retail and service outlets are used to identify quality differences and imputation procedures are then used.

Appearance of new items: The sample of goods and services is updated once a year, including new products that gain market shares and replacing obsolete ones.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Actual prices are used for seasonal items during seasons while an average price based on previous season is imputed for "out-of-season". The average price is kept fixed till the next season.

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: The method used to impute price development in out-of-season periods is carrying forward the last observed price.

Treatment of housing

Treatment of owner-occupied housing: Owner occupied housing is included in the CPI as imputed rentals based on actual rentals paid by tenants.

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: The aggregation from the representative item level to all-item index is based on the Laspeyres formula. The Norwegian CPI is a chained Laspeyres price index with new sets of weights incorporated into the index each August.

Formula of aggregating regional/population group indices into national index: Regional weights are used to combine the regional indices into national indices for each commodity.

Seasonally adjusted indices: The all-item index is seasonally adjusted. The procedure for seasonal adjustment is X12ARIMA.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: After checking the questionnaires manually, they are registered in an optical scanner. The prices are then put through tests that identify duplicates and observations with large price changes from the previous month. The price material are then sorted by item and region, and revised further.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI data is disseminated between 1 and 2 weeks after the end of the reference month (normally 10 days after the end of the reference month).

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation
Publications and websites where indices can be found: New release: Consumer Price Index, available in Norwegian and in English; Internet: CPI data is published in the news release at: http://www.ssb.no/kpi (in Norwegian) and http://www.ssb.no/en/kpi (in English).

Publications and websites where methodological information can be found: A comprehensive description of the methodology and sources used to compile the CPI is published in Official Statistics of Norway series volume Konsumprisindeksen 1995-2000. The report is not translated to English.

I: Other Information

Completed by ILO in 2013.

Occupied Palestinian Territory

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Palestinian Central Bureau of Statistics (PCBS)

Periodicity: Monthly

Price reference period: 2004

Index reference period: 2004

Weights reference period: 2004

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: Main cities/metropolitan areas/regions

Price collection: Main city (can include surrounding areas)

Population coverage: Resident households of nationals.

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;
• Housing maintenance, minor repairs;
• Major repairs, conversions and extensions to owner occupied housing;
• Purchase of gifts of goods and services given to others outside the household;
• Luxury goods;
• Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
• Life insurance premiums;
• Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
• 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;
• Interest payments (excluding mortgage interest payments);
• Gambling expenditure, gross of winnings;
• Investment-related expenditures (e.g. purchase of shares/stocks);
• Occupational expenditures;
• Other business-related expenditures

**C: Concepts, definitions, classifications and weights**

**Definition of the CPI and its objectives:** The CPI is meant to indicate average fluctuations in prices of commodities (goods and services) purchased by households nationwide. In other words, using the consumption by households at a given time as the base period, the index shows changes in the total amount of expenditure required to purchase the equivalent goods and services purchased by households in the base year, setting the consumption structure. Thus, the CPI is intended to measure changes in prices themselves in the Palestinian Territory. It should be noted, therefore, that the index does not take into consideration fluctuations in living expenses caused by changes in the kind, quality, and/or quantity of commodities purchased by a household as its lifestyle, tastes, etc. change.

**Definition of consumption expenditures:** Household Expenditure refers to the amount of cash spent on the purchase of goods and services for living purposes, and the value of goods and service payments, or part of payments, received from an employer, and cash expenditure spent as taxes (non-commercial or non-industrial), gifts, contributions, interest on debts, and other non-consumption items. Household consumption refers to the amount of cash spent on the purchase of goods and services for living purposes, and the value of goods and service payments, or part of payments, received from an employer, and own-produced goods and food, including consumed quantities during the recording period, and imputed rent.
**Classification:** COICOP (Classification of individual consumption by purpose) at 8-digit level

**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:** No

**Weights for different population groups or regions:** CPI for three different geographical regions i.e. West Bank, Jerusalem and Gaza Strip is calculated.

**D: Sample design**

**Sampling methods:**

*Localities:* Judgmental sampling

*Outlets:* Judgmental sampling

*Products:* Judgmental sampling

**Frequency of sample updates:**

*Localities:* Not regularly

*Outlets:* Not regularly

*Products:* Not regularly

**If sample updates are irregular indicate when last updates were introduced:** 2012

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:** Prices are collected from different locations and cities in the Palestinian Territory where main markets exist, and the sample must cover different places in the same location or city according to: geographical distribution, size of the outlet, availability of the products and services.

The selection of goods and services is based on the most popular and consumed goods and services in the Palestinian society as well as recommendations of household expenditure surveys within each sub group.

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Localities: 60, Outlets: 2,000, Price observations: 18,000 - 20,000
Frequency with which prices are collected: The prices of food items are collected weekly. Prices of the other groups of items are collected on a monthly basis except for the service items, which are collected quarterly, also the prices of transportation, communications, medical care are collected quarterly, education services are also collected quarterly in conjunction with the beginning of the seasons of education.

Reference period for data collection: Prices are collected four times during a month, prices of vegetables and fruits are collected once a week on Tuesday.

Methods of Price Collection

- Personal data collection for all items.
- Internet
- Official tariffs for transportation fees.

Treatment of:

Discounts and sales prices: Discounts are included in the CPI as long as they have been clearly advertised and available to all consumers without negotiating.

Black market prices: Not collected because they are not represented in the weights.

Second hand purchases: Not included.

Missing or faulty prices: Missing prices are treated in different ways according to each case and type of missing data.

Period for allowing imputed missing prices: Imputation for a missing price is allowed for a period not exceeding 3 months, after which a replacement, if available, is selected.

Disappearance of a given type or quality from the market: The old product is replaced with a new one. The new item must be a substitute for the old one and should belong to the same CPI group. New base price for the substitute is calculated.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: The seasonality problem appears with fresh fruits and vegetables items and clothing. PCBS deals with such cases in a scientific way called (Group Relative Method), a process that estimates prices based on the prices of these items in the same period of the base prices.

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: The method used to impute price development in out-of-season periods is carrying forward the last observed price.

Treatment of housing

Types of dwellings covered by the rent data: Data collection depends on the location and size of the dwelling.

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: The geometric mean of the elementary indices is multiplied by weights for each sub group; the index of the main group is calculated by dividing the summation of all weighted ratios by the total weight of each group.

Formula of aggregating regional/population group indices into national index: The national index is calculated by dividing the summation of all weighted ratios of the main groups by the total weight.

Monthly and annual average prices: Geometric means are used

Seasonally adjusted indices: No

Software used for calculating the CPI: Microsoft Excel

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: At the end of the data collection process in all governorates, the data are edited according to the following process: i) Field revision of prices through selecting a sample of the prices collected with the items; ii) Logical revision of quantity and production by comparing the quantity of goods and services with others from different sources and other governorates. Whenever a mistake is detected, it should be returned to the field for correction; iii) Logical revision of prices by comparing the prices of goods and services with others from different sources and other governorates and other periods. Whenever a mistake is detected, it should be returned to the field for correction.

Control procedures used to ensure the quality of data processed: Mathematical and logical revision of the average prices for items in governorates and the general average in all governorates and comparing the current prices with the previous prices.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI is disseminated 14 days after the end of the reference month, on the fourteenth of each month.
**Level of detailed CPI published**

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

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

**Restricted Access**: Class-level (100 classes), Basic items.

**Separate indices published for specific population groups**: Separate indices are published based on three geographical levels, the West Bank, Gaza Strip and Jerusalem city.

**Type of products for which average prices are calculated and disseminated**: Food products (i.e. fresh vegetables, fresh fruits, frozen vegetables and fruit fresh, meat and fish, sugar, diary products, rice and bread, energy, gasoline, alcoholic products, cigarettes, electricity, gas).

**Documentation**


**Publications and websites where methodological information can be found**: Internet website: [http://www.pcbs.gov.ps/DesktopModules/Articles/ArticlesView.aspx?tabID=0&lang=en&ItemID=100&mid=10571](http://www.pcbs.gov.ps/DesktopModules/Articles/ArticlesView.aspx?tabID=0&lang=en&ItemID=100&mid=10571) and [http://dsbb.imf.org/Pages/SDDS/CtyCtgBaseList.aspx?ctycode=PSE&catcode=CPI00](http://dsbb.imf.org/Pages/SDDS/CtyCtgBaseList.aspx?ctycode=PSE&catcode=CPI00)

**I: Other Information**

Reported by the country in 2012.

**Oman**

**A: Identification**

**Title of the CPI**: CPI

**Organisation responsible**: Ministry of National Economy (MONE)

**Periodicity**: Monthly

**Index reference period**: 2000 = 100

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.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The consumer price index (CPI) measures the change in prices of goods and services purchased by households of the Sultanate.

Classification: COICOP (Classification of individual consumption by purpose)

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

Price updating of weight reference period to the index reference period: No, not needed.

D: Sample design

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Outlet selection: The outlets are selected on the basis of accessibility, representation and availability of the products.

Item selection: The products for which the price quotes are collected are selected on the basis of their weight in household consumption and availability over a long period.

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 1,571-Sultanate

Frequency with which prices are collected: The frequency of price collection is as follows; Fresh fish, fresh fruits and vegetables – weekly; Services and other durable goods – quarterly; Rented units - contracted period; other foods and non-food items – monthly.
Reference period for data collection: Fruits and vegetables prices are collected on Saturday of each week. Meat, poultry and frozen fish prices are collected in the 1st three days of the reference month. Other food items prices are collected from the 10th to the 20th day of the reference month. Non-food items prices are collected from the 20th day to the end of the reference month. Services, such as restaurants, hair cutting, etc. - prices are collected on a quarterly basis.

Methods of Price Collection

- Personal data collection
- Official tariffs

Treatment of:

Missing or faulty prices: If a price quote is missing the group relative method is used to estimate it. This method involves an estimation process for price on the basis of change in prices of the remaining sources for the same brand.

Disappearance of a given type or quality from the market: When the permanent disappearance of some brands of goods is confirmed, these goods are substituted with similar new brands. The new brands should be similar in type to those disappeared i.e. classified under the same good. The substitution process is completed by selecting the brand that is widely accepted by the consumers. The base price of the new brand is estimated using four statistical methods for the calculation. These methods are as follows: i) direct comparison method, ii) overlap method, iii) link to show no change and iv) explicit quality adjustment method.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Seasonal items are vegetables and fruits. When their prices are missing temporarily, they are treated in the same way as temporary missing prices.

Treatment of housing

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: The price index in the Sultanate is calculated using Laspeyres formula that has the following format:

$$\text{Price index} = \frac{\sum P_1 \times W}{\sum W}$$

where
\[ P_t = \text{price for current period} \]
\[ P_0 = \text{price for base period} \]
\[ W = \text{weights (relative significance of good)} \]

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** Data collection in the Sultanate is done by regular MONE staff using hand-held computers. These hand-held computers have an edit check to control the quality of the price data. The data collected by the enumerators are downloaded to the Oracle database. A further validation check is undertaken at this stage that compares the current quote with the prices of the previous 12 months by source. Faulty data are replaced.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** The CPI is disseminated 1 – 2 months after the reference period.

**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

**Documentation**

**Publications and websites where indices can be found:** Monthly Statistical Bulletin in (Arabic and English), MONE, Quarterly Consumer Price Index Bulletin in (Arabic and English), DGOES, MONE, Statistical Yearbook in (Arabic and English), MONE, “Facts Figures” (Arabic and English), MONE, Consumer Price Index Bulletin in (Arabic and English), DGOES, MONE; Internet website: [http://www.ncsi.gov.om/](http://www.ncsi.gov.om/)

**Publications and websites where methodological information can be found:** Brief methodological notes on the CPI, including the formula for tabulating the basket weights are published in the “Statistical Yearbook”. In addition a detailed methodology used in preparing the index is available at [http://www.moneoman.gov.om/viewPublication.aspx?id=1719](http://www.moneoman.gov.om/viewPublication.aspx?id=1719)

**I: Other Information**

Completed by ILO in 2013.

**Pakistan**

**A: Identification**

**Title of the CPI:** Consumer Price Index
**Organisation responsible:** Pakistan Bureau of Statistics

**Periodicity:** Monthly

**Index reference period:** 2007 – 2008 = 100

**Weights reference period:** 2007/2008 Family Budget Survey.

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

**B: CPI Coverage**

**Geographical Coverage**

*Weights:* Nation-wide

*Price collection:* Nation-wide

**Population coverage:** Resident households of nationals.

**C: Concepts, definitions, classifications and weights**

**Definition of the CPI and its objectives:** Consumer Price Index (CPI) is considered the most common measure of general inflation. It measures changes in the cost of buying a representative fixed basket of goods and services and generally indicates inflation rate in the country.

**Classification:** COICOP (Classification of individual consumption by purpose)

**Sources of weights:** Household expenditure surveys.

**Frequency of weight updates:** Above 5 years

**Price updating of weight reference period to the index reference period:** No, not needed.

**D: Sample design**

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Localities: 40 urban centers, 76 markets

**Frequency with which prices are collected:** Price data is collected on a monthly basis.

**Reference period for data collection:** Food & non-alcoholic beverages, alcoholic beverage & tobacco - prices are collected between 11th - 14th of each month; clothing and footwear, housing, water, electricity, gas and other fuels - prices are collected between 1st - 3rd of each
Methods of Price Collection

- Personal data collection
- Official tariffs

**Treatment of:**

**Missing or faulty prices:** The prices of items missing temporarily are carried forward.

Period for allowing imputed missing prices: Imputation of a missing price is allowed up to 2 months. If the item is missing for more than 2 months, a replacement is sought.

**Disappearance of a given type or quality from the market:** A product disappearing from the market is replaced by a similar product.

**Quality differences:** Possible quality differences between the original item and its replacement are removed by imputing a base year price for the replacement item. If no replacement item can be found, the weight of the original item is distributed over the other items.

**Appearance of new items:** Totally new items do not enter the CPI between two base years, except as a replacement for discontinued items.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** Seasonally adjusted data are not published but may be compiled.

**Treatment of housing**

**F: Computation**

**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index) (Direct form)

**Formula to aggregate elementary indices to higher-level indices:** The Laspeyres formula is used for the computation of the CPI. The formula is given below:

\[ I_n = \frac{\sum (P_n/P_0) \times w_i}{\sum w_i} \times 100 \]

where

- \( I_n \) = CPI for the \( n^{th} \) period
\[ P_n = \text{Price of an item in the } n^{th} \text{ period.} \]
\[ P_0 = \text{Price of an item in the base period.} \]
\[ w_i = \text{Weight of the } i^{th} \text{ item in the base period} = P_0 Q_0 \sum P_0 Q_0 \]
\[ \sum w_i = \text{Total weight of all items.} \]

**Monthly and annual average prices:** For each item, four quotations from different shops in a market are obtained. Average of these four quotations is taken as a representative price for that market. Price for each item is computed by averaging its prices in all the selected markets of the city. The National average price of an item is thus obtained by taking the average of all the 40 cities covered under CPI.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** Price data are checked and scrutinized at the headquarters to ensure its accuracy. In the event of any doubt or abnormal variations, clarifications are immediately obtained from the concerned price reporting center.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** Data are disseminated on the 11th day of the following 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

**Documentation**


**Publications and websites where methodological information can be found:** FBS’s “Brochure of Federal Bureau of Statistics, 2001-2000” publishes methodology statements for various statistics compiled and disseminated by FBS, including methodology for price indices. A methodology for price indices is available at http://www.pbs.gov.pk/content/methodology-2

**I: Other Information**

Completed by ILO in 2013.
Panama

A: Identification

Title of the CPI: National Urban Consumer Price Index

Organisation responsible: Directorate of Statistics and Census, Office of the Controller-General of the Republic

Periodicity: Monthly

Index reference period: October 2002 = 100

Main uses of CPI: Main inflation indicator used for monetary policy, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Urban areas

Price collection: Urban areas

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Classification: COICOP (Classification of individual consumption by purpose)

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Annual

D: Sample design

E: Data Collection

Frequency with which prices are collected: Price data is collected every month. Prices for rent, repairs on women’s footwear, plumbing services, garbage collection, building management fees, laundry services, eye wear, general doctor’s visits, etc., are collected quarterly. Water and electoral power - collection is semi-annual and applies to one reference month. Education, automobile purchases, domestic services, passports, notary services, etc. - collection is annual and applies to one reference month.

Methods of Price Collection

- Personal data collection

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Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

Seasonally adjusted indices: There is no seasonal adjustment.

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The data are disseminated on the 15th of the following month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation

Publications and websites where indices can be found: Bulletin - Situación Económica, Indice de Precios al por Mayor y al Consumidor [Economic Situation - Wholesale and Consumer Price Index], Statistical Yearbook, Panamá en Cifras [Panama in Figures]; Internet website: http://www.contraloria.gob.pa

I: Other Information

Completed by ILO in 2013.

Paraguay

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Central Bank of Paraguay

Periodicity: Monthly

Index reference period: December 2007 = 100

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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Urban areas

Price collection: Urban areas

Population coverage: Resident households of nationals.

Population groups excluded: Institutional households.

Consumption expenditure includes:

- Foods produced for own final consumption;
- Other goods produced for own final consumption;
- Services produced for own final consumption;
- Housing maintenance, minor repairs;
- Life insurance premiums;
- Gambling expenditure, gross of winnings;
- Expenditures abroad

Consumption expenditure excludes:

- Major repairs, conversions and extensions to owner occupied housing;
- Interest payments (excluding mortgage interest payments);
- 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 Consumer Price Index (CPI) of the metropolitan area Asuncion, measures changes in the prices of a set of representative goods and services spending household consumption.

Classification: COICOP (Classification of individual consumption by purpose) in 12 groups

Weights include value of consumption from own production: Yes

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

D: Sample design
Sampling methods:

*Outlets*: Judgmental sampling

*Products*: Judgmental sampling

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Item selection: Goods and services are selected in three ways i.e. i) direct inclusion for items that have share holdings exceeding 0.1% compared to the total consumption expenditure of households and ii) inclusion of items that do not apply to the above criteria but that should be incorporated for various reasons (Article strategic help to increase incorporation of importantly level representation immediately above).

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 1,000, Price observations: 11,300

Frequency with which prices are collected: Prices are collected weekly, biweekly and monthly.

Methods of Price Collection

- Personal data collection

- Official tariffs

Treatment of:

Discounts and sales prices: Prices are excluded for special discounts and allowances.

Missing or faulty prices: Imputation methods are used for missing prices. The methods applied to the varieties with missing prices are i) the average of relatives of the other varieties within the corresponding item, or ii) the average relative price of the subgroup to which the variety belongs.

Disappearance of a given type or quality from the market: Product substitution is done when a product disappears permanently from the market.

Quality differences: The adjustments for quality changes are made by applying i) quality equivalent or replacement comparable to those items in the basket that have a lot of brands, which have very similar characteristics, ii) adjustments for changes in quantity, where the only difference between the old item and substitute is the amount, iii) overlap method where it is possible to write down the item price of the current quality and new quality at the same time, and iv) the chaining method in which variation is attributed to price between the replacement item in the current period and old article from the period before a change of quality.

Treatment of seasonal items and seasonality
**Items that have a seasonal character and their treatment:** In the case of seasonal products, the weights approach still assigned the same weight to the good or service seasonal every month, using an imputed price in the months that do not correspond to their season.

**Seasonal food items:** Seasonal food items are included in the CPI using variable weights approach: the weights vary over the year.

**Treatment of housing**

**Treatment of owner-occupied housing:** Rental value attributable to the use of home ownership is excluded from the CPI.

**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:** Aggregation of elementary indices to higher-level indices is the Lowe (modified Laspeyres) formula.

**Software used for calculating the CPI:** The CPI is calculated with a system designed in SQL Server. The system facilitates the incorporation and deactivation of varieties of goods and services, generates price validation reports, including a routine for the imputation of missing prices, generates monthly reports, point coverage sales and observed prices and generates special classifications indices reports (e.g. underlying goods, services and income, etc.)

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** The prices collected are subjected to quality control prior to the index. The review process involves detecting inconsistent prices collected from the field, default units of measurement, and verification compliance with the specifications for the varieties. The pickups that generate doubts are investigated by field supervisors initially by technical consultation to enumerators, and in case doubts persist, they may, as appropriate, revisit the appropriate establishment for consultations or by telephone.

**Control procedures used to ensure the quality of data processed:** During processing, the computer platform for CPI incorporates filters from the moment data is loaded, enabling automatic detection of errors by establishing ranges of price changes allowable for each of the articles, giving the system notice, by emerging calls when the prices charged exceed the ranges set, so that the data entered is verified. Subsequently, a review of the prices for the same product at the level of all informants is made so as to identify inconsistencies that may not have been detected in the previous stages. This report identifies trends across all informants of a product, and observing some quotes that deviate from the average price pattern.

**H: Documentation and dissemination**
**Timeliness of dissemination of the CPI data:** National CPI is disseminated 10 days after the end of the reference month. CPI for the metropolitan area (bimonthly): on the 16th and last day of each month.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**

**Publications and websites where indices can be found:** “Índice de Precios al Consumidor” [Consumer Price Index], BCP, (monthly news release, brochure) “Informe Económico” [Economic Report] (publications in Spanish; Internet: www.bcp.gov.py

**Publications and websites where methodological information can be found:** A methodological note on consumer price index is available at http://www.bcp.gov.py/index.php?option=com_content&view=article&id=434:notas-metodolas&catid=62:investigaciones-y-estudios&Itemid=389

**I: Other Information**

Completed by ILO in 2013.

**People's Republic of China**

**A: Identification**

**Title of the CPI:** Consumer Price Index

**Organisation responsible:** National Bureau of Statistics of China

**Periodicity:** Monthly

**Price reference period:** 2010 = 100

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

**Weights reference period:** 2011 – 2015

**Main uses of CPI:** Indexation of wages, pensions and/or social security payment, main inflation indicator used for monetary policy, deflate household expenditures in national accounts, macroeconomic modelling and other analytic uses.
B: CPI Coverage

Geographical Coverage

*Weights*: Nation-wide

*Price collection*: Nation-wide

*Population coverage*: Resident households of nationals.

**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;
- Major repairs, conversions and extensions to owner occupied housing;
- Luxury goods;
- 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);
- 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;
- Purchase of gifts of goods and services given to others outside the household;
- Financial services (including fees for financial advice, brokerage fees);
- Interest payments (excluding mortgage interest payments);
- Life insurance premiums;
- Gambling expenditure, gross of winnings;
- Second hand goods purchased;
- Investment-related expenditures (e.g. purchase of shares/stocks)

C: Concepts, definitions, classifications and weights

**Definition of the CPI and its objectives**: Consumer Price Index reflects the trend and degree of changes in prices of consumer goods and services purchased by urban and rural residents, and is a composite index derived from the urban consumer price index and the rural
consumer price index. Consumer price index can be used to analyze the impact of consumer price change on actual expenditure for living costs of urban and rural residents.

**Definition of consumption expenditures:** Consumption expenditure refers to total expenditure made by the sample households in daily life; such expenditure is classified into eight categories. Beneficence of commodities and services is also included in the consumption expenditures. Both money expenditure and expenditure in kind are included in consumption expenditure (whether purchased, from own production, being given and/or paid).

**Classification:** National classification of consumption expenditure

**Weights include value of consumption from own production:** Yes

**Sources of weights:** Household expenditure surveys and consumer surveys that are conducted every five years and cover around 100,000 households, including 40,000 households in urban areas and the remaining in rural areas. The households also complete a diary of purchases for that year.

**Frequency of weight updates:** Every 3-5 years

The primary source of information for the index weights are the urban and rural household Price updating of weight reference period to the index reference period: Yes

**Weights for different population groups or regions:** Weights are computed for urban areas and rural areas.

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

*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:* Annual

*Outlets:* Continuous (on a rotating basis)

*Products:* Continuous (on a rotating basis)
Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: The NBS Survey Offices of various municipalities and counties do research local market to understand the situation with respect to the sales of all categories of goods and services and then sort all kinds of shops (grocery stores, department stores, supermarkets, convenience stores, professional markets, bazaars, services outlets, etc) by sales from big sales outlets to small ones.

Based on this ranking, interval sampling is conducted according to required number of survey points. Price survey points are selected from those shops, supermarkets, fairs and service outlets with complete offer and significant sales.

For mega cities and big cities, 5+ bazaars and 3+s integrated supermarkets are selected; for middle sized cities, 3+ bazaars and 2+ integrated supermarkets are selected; for small cities and counties, 2+ bazaars and 1+ integrated supermarkets are selected. For each product specification, 3+ price survey points should be selected for big cities, 2+ should be selected for middle sized cities, and 1+ must be included for small cities and counties.

Since the number of varieties varies across outlet and over time it is difficult to find items with identical specifications and maintain price consistency across different outlets and over time. To solve the problem, items with similar specifications can be used to replace the previous ones or a number of specifications can be added as appropriately. Finally, local survey offices may increase the number of outlets where prices are collected in the locality.

Representative specifications are selected on the basis of following principles: 1) items with significant share in consumption expenditure; 2) item specifications whose price trend and range are strongly representative for other items not included in the basket; 3) in the case of similar market shares, item specifications that have big quality difference and low correlation in price changes are preferable selected to represent the same basic heading; 4) item specifications with promising production and sales; 5) industrial products that are labelled with trademarks, producing areas and classes.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 500 cities and counties of the 31 provinces (autonomous regions and municipalities), Outlets: 373,000, Price observations: 1,814,000

Frequency with which prices are collected: For regular goods and services, prices are collected two to three times per month; for those items whose prices change frequently (e.g. perishable items – fruits, vegetables, eggs, poultry, meat and fish), prices are collected every five days; for industrial products prices are collected 1 to 3 times a month; for those items whose prices are controlled by the government (central or local) such as rent, electricity, public transportation, and drinking water and those with stable prices, prices are collected once every month.

Reference period for data collection: Month.

Methods of Price Collection
- Personal data collection

**Treatment of:**

**Discounts and sales prices:** Different methods are adopted in different situations

**Black market prices:** Not collected.

**Second hand purchases:** Not included.

**Missing or faulty prices:** Extrapolation by using the change of the other prices for the same item, re-weighting of the non-missing prices.

Period for allowing imputed missing prices: The last observed price is used one more month. A replacement item should be priced thereafter.

**Disappearance of a given type or quality from the market:** A replacement item is selected

**Quality differences:** Direct comparison, direct quality adjustment, implicit quality adjustment.

**Appearance of new items:** New items are included in the CPI basket if and when they have significant share in household expenditure survey.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** The fixed weights approach is adopted for fresh fruit and vegetables.

**Seasonal food items:** Seasonal food items are included in the CPI using fixed weights approach.

**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:** The method used to impute price development in out-of-season periods is carrying forward the last observed price and impute the price by using price development of in-season products.

**Treatment of housing**

**Treatment of owner-occupied housing:** Rental equivalence approach

**Types of dwellings covered by the rent data:** The types of dwellings covered by the rent data are public rental housing and private rental housing.

**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: The index is Laspeyres-type annually chained index.

\[ L_t = L_{t-1} \times \frac{\sum p_t Q_{2010}}{\sum p_{t-1} Q_{2010}} \]

Formula of aggregating regional/population group indices into national index: National index is acquired by aggregating the urban price index and rural one, and by using household’s consumption expenditure as weights.

Seasonally adjusted indices: No

Software used for calculating the CPI: CPI10 (software developed by NBS)

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Price collections are checked for minimum/maximum values. The CPI compilation computer program highlights price fluctuations exceeding specified ranges that are investigated. Abnormal price quotations are referred back to the price collectors.

Control procedures used to ensure the quality of data processed: Provincial, city price indices are compared with each other as an additional check of quality.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: 9 days 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

Separate indices published for specific population groups: Consumer prices for urban and rural areas, for food and non-food items and for consumer goods and services.

Type of products for which average prices are calculated and disseminated: Average price of food products (Rice, Flour, Soy Products, Peanut Oil, Soybean Oil, Rapeseed Oil, Pork, Beef, Mutton, Chicken, Ducks, Eggs, Live Carps, Live Grass Carp, Hairtails, Chinese Cabbage, Rapes, Celeries, Cucumbers, Tomatoes, Kidney Beans, Potatoes, Apples, Bananas) in 50 cities,
Publications and websites where indices can be found: http://www.stats.gov.cn/english/

Publications and websites where methodological information can be found: How Statistical Data are Produced – CPI. http://www.stats.gov.cn/english/statisticalstudio/t20101025_402786908.htm

I: Other Information

Reported by the country in 2012.

Perú

A: Identification

Title of the CPI: Índice de Precios al Consumidor de Lima Metropolitana

Organisation responsible: Instituto Nacional de Estadística e Informática (INEI)

Periodicity: Monthly

Price reference period: 2009 = 100

Index reference period: 2009 = 100

Weights reference period: Mayo 2008 – Abril 2009

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: Main city (can include surrounding areas)

Price collection: Main city (can include surrounding areas)

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

Population groups excluded: Institutional households (0.17%).

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;
• Luxury goods;
• Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims

**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;
• Financial services (including fees for financial advice, brokerage fees);
• Interest payments (excluding mortgage interest payments);
• Life insurance premiums;
• Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
• 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:** Indicador estadístico-económico que mide las variaciones de los precios de los bienes y servicios consumidos habitualmente por un conjunto de familias con diversos niveles de ingreso de Lima Metropolitana y en un determinado momento del tiempo

**Definition of consumption expenditures:** Valor total de los bienes y servicios de consumo adquiridos durante el periodo de referencia, independientemente de que se haya pagado o no en su totalidad o se haya consumido en ese período.

**Classification:** Se utilizó la Clasificación del Consumo Individual por Finalidad – CCIF, con la apertura: División, grupo, clase (comparabilidad internacional); pero con fines comparativos se continuó publicando con la Clasificación del Sistema de Cuentas Nacionales (8 Grandes Grupos de Consumo).
Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

Price updating of weight reference period to the index reference period: Se han actualizado los gastos del periodo de la encuesta al promedio del año 2009, base del índice, utilizando la variación de los precios a nivel de producto o artículo básico.

Weights for different population groups or regions: No

D: Sample design

Sampling methods:

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

Outlets: Simple random, sampling with probability proportional to size (PPS), judgmental sampling

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:

Outlets: Continuous (on a rotating basis)

Products: Continuous (on a rotating basis)

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: Las localidades (distritos), fueron elegidas según la población y el número de centros comerciales en cada una de ellas. Los puntos de venta, fueron seleccionados por el tipo más frecuente en la zona, mayor volumen de ventas o afluencia de público, garantía de continuidad y libre acceso a la población. Y los artículos, de acuerdo a su importancia relativa en el gasto de los hogares, representativos de productos similares y facilidad de seguimiento.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Las variedades específicas son seleccionadas considerando la importancia de sus ventas en el informante, por información externa complementaria y/o encuestas de opinión en los puntos de venta.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 38, Outlets: 7,460, Price observations: 43,680
**Frequency with which prices are collected:** Productos alimenticios de mercados de abasto: Semanal; Combustibles: Semanal; Alquiler de vivienda: Trimestral (muestra repartida en 3 meses); Educación (Matrícula escolar): Annual; Resto de productos: Mensual

**Reference period for data collection:** Producto de mercado: martes, jueves y sábado de cada semana; Combustibles: día viernes de cada semana; Alquiler de vivienda: en cada trimestre, un tercio de la muestra cada mes; Matrícula escolar: meses de febrero y marzo de cada año; Resto de productos: del 1º al 27 día del mes calendario

**Methods of Price Collection**

- Personal data collection for: todos los productos, con excepción de matrícula escolar
- Mailed questionnaires for: matrícula y primera pensión escolar.
- Recogida centralizada for: tarifas públicas.

**Treatment of:**

**Discounts and sales prices:** Si, a condición de que sea general y con duración de por lo menos una semana

**Black market prices:** Not collected.

**Second hand purchases:** Not included.

**Missing or faulty prices:** i) Utilización de la observación anterior para variedades específicas No homogéneas; ii) Se emplea la extrapolación con la variación de los otros precios del mismo artículo, para las variedades específicas homogéneas.

Period for allowing imputed missing prices: i) Se imputa máximo dos meses; ii) Se reemplaza por una variedad específica de similares características en el mismo informante

**Disappearance of a given type or quality from the market:** Si desaparece el tipo o presentación de la variedad específica, se sustituye por la nueva presentación y se estima el precio anterior por proporcionalidad.

**Quality differences:** Para algunas variedades que presentan cambios de calidad, se ajustan sus precios básicamente por el método de costo de factores, y por un modelo hedónico donde es pertinente.

**Appearance of new items:** No se consideran nuevos productos en la canasta hasta un nuevo cambio de periodo base. A nivel de variedad específica se incluye en el producto seleccionado, cuando se aprecia su representatividad en el mercado.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** Sólo se considera como producto estacional el vestido. En estos productos se incluyen variedades específicas de
temporada. Cuando desaparecen o disminuyen sensiblemente, se mantiene el último precio hasta su plena reaparición.

**Seasonal food items:** Seasonal food items are included in the CPI using no hay artículos alimenticios estacionales.

**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:** The method used to impute price development in out-of season periods is carrying forward the last observed price.

**Treatment of housing**

**Treatment of owner-occupied housing:** No se considera en el IPC

**Types of dwellings covered by the rent data:** Viviendas con alquiler efectivo: casa independiente, departamento en edificio, vivienda en quinta y cuarto en casa de vecindad. Se recolecta precios por entrevista directa y con frecuencia trimesal.

**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:** En cada ciudad donde se calcula el IPC, se calcula el índice por producto:

\[
I_{c,i,t} = \sqrt{\prod_{r=1}^{s} \frac{P_{cir,t}}{P_{cirt,0}}}
\]

- \(I_{c,i,t}\) : Índice en la ciudad \(c\) del producto \(i\), para el periodo \(t\) respecto a la base 0
- \(P_{cir,t}\) : Precio en el informante \(r\) incluido en el producto \(i\), para el período \(t\).
- \(P_{cirt,0}\) : Precio en el informante \(r\) incluido en el producto \(i\), para el periodo 0.
- \(s\) : Número de informantes en el producto \(i\).

Para cada ciudad, los agregados superiores: Rubro

\[
I_{c,R,t} = \frac{\sum_{i=1}^{n_R} I_{c,i,t} \times W_{cirt,0}}{\sum_{i=1}^{n_R} W_{cirt,0}}
\]

- \(I_{c,R,t}\) : Índice del rubro \(R\) en la ciudad \(c\), para el periodo \(t\)
- \(W_{cirt,0}\) : Ponderación en la ciudad \(c\) del producto \(i\), incluido en el rubro \(R\), del periodo base 0
- \(n_R\) : Total de productos en el rubro \(R\).

Y así sucesivamente hasta el índice general.
Software used for calculating the CPI: Se emplea el Sistema Integral de Indicadores Económicos (SIIE), desarrollado en una plataforma Visual Fox Pro Versión 6.0

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Se distribuyen los circuitos de captación de precios espacial y temporalmente durante el mes. La información recopilada es supervisada en forma selectiva y aleatoria a partir del segundo día de captación de precios.

Control procedures used to ensure the quality of data processed: Verificación semanal de los datos digitados. Análisis y consistencia de las variaciones, utilizando estadísticos de centralización y de dispersión. Análisis comparativo de los niveles de precios a través de reportes prediseñados.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: 1 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), Basic items, Average prices

Separate indices published for specific population groups: No

Type of products for which average prices are calculated and disseminated: Principales productos alimenticios, combustibles y tarifas de servicios públicos

Documentation

Publications and websites where indices can be found: Publicaciones: Informe Técnico, Boletín Mensual de Indicadores de Precios de la Economía, Boletín Anual de Precios, Compendio Estadístico, Compendio Económico.

Sitios web: www.inei.gob.pe/web/perucifras41.asp


Publications and websites where methodological information can be found: Metodología del cambio de año base del Índice de Precios al Consumidor de Lima Metropolitana. www.inei.gob.pe/metodologías/precios Metodología del cálculo del IPC de Lima Metropolitana www.inei.gob.pe/biblioinei/libro 42 y 34

I: Other Information

Reported by the country in 2012.
Philippines

A: Identification

Title of the CPI: The Consumer Price Index for all income households in the Philippines

Organisation responsible: National Statistics Office (NSO)

Periodicity: Monthly

Price reference period: 2006

Index reference period: 2006

Weights reference period: 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.

Population groups excluded: Institutional households.

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;
- In-kind goods received as gifts;
- In-kind services received as gifts;
- Housing maintenance, minor repairs;
- Luxury goods

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;
- Financial services (including fees for financial advice, brokerage fees);
- Interest payments (excluding mortgage interest payments);
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- Life insurance premiums;
- Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
- 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;
- Second hand goods purchased;
- Expenditures abroad

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: CPI measures change in the average retail prices of a fixed basket of goods and services commonly purchased by households relative to a base year. It serves as a basis for determining inflation rate and as a measure of change in the value of money or of the purchasing power of the currency.

Definition of consumption expenditures: It is the total value of expenditures of commodities, in cash/credit or in-kind, purchased or acquired or services paid for during the specified period, even though not all of such commodities were consumed during the said period. For food items, expenditures are only those consumed during the reference period.

Classification: PCOICOP which is aligned to COICOP. Levels are sub-class (SC), class (C), group (G), division (D)

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 reference period corresponds to the index base period, there is therefore no need to price update weights.

Weights for different population groups or regions: Weights are compiled by region and by province/selected city

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:** Cut-off sampling (the elements with the highest sales or value of other auxiliary variable are included into the sample). The Commodity and Outlet Survey (COS) is a nationwide survey of households undertaken by the NSO. This is conducted for the purpose of gathering data on commodities/services that a family purchased/consumed/availed of most of the time and the type of outlets where these commodities/services were purchased/availed of within the country. The results of the survey provide the basis for the identification of the market basket which is used in the computation of the CPI. It also serves as the basis for the identification of type of outlets for the regular monthly price survey.

**Products:** Cut-off sampling (the elements with the highest sales or value of other auxiliary variable are included into the sample). The Commodity and Outlet (COS) is a nationwide survey of households undertaken by the NSO. This is conducted for the purpose of gathering data on commodities/services that a family purchased/consumed/availed of most of the time and the type of outlets where these commodities/services were purchased/availed of within the country. The results of the survey provide the basis for the identification of the market basket which is used in the computation of the CPI. It also serves as the basis for the identification of type of outlets for the regular monthly price survey.

**Frequency of sample updates:**

**Localities:** At the time of updating the basket of goods and services, or as the need arises.

**Outlets:** At the time of updating the basket of goods and services, or as the need arises. For those outlets that were not in operation or closed, replacements are chosen using the criteria for replacing outlets.

**Products:** At the time of updating the basket of goods and services, or as the need arises. For those particular brands of items that disappear from the markets, these are immediately replaced by equivalent brands.

**If sample updates are irregular indicate when last updates were introduced:** 2006 or as the need arises.

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:** Based on the results of the Commodity and Outlet Survey.

**Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office:** Specifications of the items are tightly described in the survey forms as these are specified based on the results of the Commodity and Outlet Survey

**E: Data Collection**
**Approximate number of localities, outlets and price observations:** Localities: 418, Outlets: 15,279, Price observations: 300,912

**Frequency with which prices are collected:** Price collection for food, beverages and tobacco is carried out in 13 markets in the National Capital Region (NCR) on a weekly basis. For the non-food commodities, except petroleum products, 13 markets in NCR on a weekly basis are surveyed and the price collection is carried out on the first five days of the month and during the middle of each month. For the provinces, two price quotations are collected for each of the commodity in the provincial capital, while four other price quotations are collected from the municipalities outside the capital during the first five days of the month. However, only two price quotations are collected from the provincial capital during the middle of each month. For selected cities, six price quotations are collected in each market during the first five days of the month and during the middle of each month.

For petroleum products, six price quotations are collected from each sample market for each commodity in 15 sample areas in the National Capital Region (NCR) on a daily basis. In Areas Outside NCR (AONCR), two price quotations for each commodity are collected in the provincial capital every Friday, while four other price quotations for each commodity are collected once a month from the municipalities outside the capital during the first five days of the month. For selected cities, six price quotations are collected every Friday.

**Reference period for data collection:** In NCR, all unprocessed food items are priced every Tuesday of the reference week while all processed food items, beverages and tobacco are priced every Friday/Saturday of the reference week. Prices of non-food items are gathered during the first five days of the month and on the 15th day of each month. In the provinces and selected cities, price collection for food and non-food items is done twice a month to effectively monitor price changes. First collection phase is done during the first five days of the month while the second phase is on the 15th to 17th day of the month. Special attention is given to the pricing of highly perishable goods, e.g., fresh fish, vegetables and fruits. Prices of these goods are taken during the time of the day when most housewives do their marketing, i.e., usually before 10:00 a.m., so to attain a reasonable degree of consistency in pricing identical groups of items in the market. Prices of some service items are gathered less frequently. School tuition fees in colleges and universities are taken twice a year, every beginning of the school semester (June or July and October or November as the case may be). College fees accounts for the per semester fees. The entry is carried through the succeeding months until the next semester. Data collection is done every June or July and October or November. Elementary and high school tuition fees account for the monthly/annual fees. The entry is carried all through the succeeding months until the next school year. Data collection is done every June or July. Changes in transportation fares, once implemented, are immediately included in the computation of CPI for NCR using proration method and included in the next survey round in areas outside NCR if the implementation date falls after the survey period.

**Methods of Price Collection**

- Personal data collection for most of the items.

- Telephone interviews for selected services.

- Internet for airplane fares.
- Official tariffs for land transport fares.

**Treatment of:**

**Discounts and sales prices:** They are not taken.

**Black market prices:** Not collected.

**Second hand purchases:** Not included.

**Missing or faulty prices:** For missing prices of unprocessed food items and petroleum products, the method of extrapolation by using the change of the other prices for the same item is used to impute the missing price. Meanwhile, for those items whose prices are not volatile, carrying forward the previous observation method is used if no quotation is available within the sample locality.

Period for allowing imputed missing prices: Three consecutive months. After three months, replacement of sample area for that particular item is recommended. The following are the criteria in selecting the most appropriate substitute commodity specifications; i) Representativeness – The substitute item to be chosen must be of the same quality and of the same price level as the lost item. ii) Significance – The substitute item must be popular with the buying public; iii) Consistency – There must be a steady supply of the substitute item in the market; iv) Availability of price quotation – Prices of the item selected as a substitute can be taken regularly.

**Disappearance of a given type or quality from the market:** If the item specifications completely disappeared from the market but new specifications are currently available for the same item, the overlap/linking method is used in pricing the item. Prices for this item having new specifications are collected during the current survey period/month as well as their prices in the immediate past month. The price change in the item with the new specifications is then applied in the previous month’s prices of the item whose specifications are not already available, that is, the growth in prices of the item with new specifications is taken as the growth in prices of that item with the old specifications.

**Quality differences:** The same procedure above is followed.

**Appearance of new items:** New items can be included when rebasing of the CPI.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** Insignificant number of seasonal items is included in the market basket. For these items, the last observed price quotation of the seasonal selected food items is carried unchanged until it becomes available again in the market.

**Seasonal food items:** Seasonal food items are included in the CPI using fixed weights but disappearance not to exceed three months to six months.
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: The method used to impute price development in out-of-season periods is carrying forward the last observed price.

Treatment of housing

Treatment of owner-occupied housing: Imputed rents for owner occupied housing are not included in the CPI. Rental under housing, water, electricity, gas and other fuels is represented by a measure of actual rental rates.

Types of dwellings covered by the rent data: Apartment-type, single house and room are the sample dwelling units being covered by the rent data. Collection is done once a month in the provincial capital and in the sample municipalities in the areas outside the National Capital Region and in selected sample areas in the National Capital Region.

F: Computation

Formula used for calculation of elementary indices: The arithmetic average of the price ratios (Carli index) (Direct form)

Formula to aggregate elementary indices to higher-level indices: Weighted arithmetic mean average or Laspeyres formula.

\[ IL_t = \frac{\sum P_tQ_0}{\sum P_0Q_0} \times 100 \]

Formula of aggregating regional/population group indices into national index: For the regional index, the weighted average of provincial indexes is computed. Meanwhile, the national index is the weighted average of all the regional indexes.

Monthly and annual average prices: Simple arithmetic mean is used to compute the monthly or the annual average prices of the commodities at the provincial and selected city level.

Seasonally adjusted indices: X11 for selected commodity groups.

Software used for calculating the CPI: An in-house Windows-based software/system developed by the NSO staff.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: i) Careful examination of price survey forms; ii) Comparison of item prices in different outlets (i.e. if there is an unusual price change either very high or very low e.g. 10 percent from the others in the group); and iii) Review of the reasonableness and completeness of price data and the accuracy in the computation of current average prices. It is done by comparing the current
outlet price of a commodity with its previous month’s price in the same outlet and comparing current average price with the previous month’s average price. If there is a big difference in the two outlet’s price data or in the two average prices, field offices are required to verify or submit justifications; iv) Checking of outliers is also included in the routine of the CPI processing system.

Control procedures used to ensure the quality of data processed: Comparison of the month-on-month/year-on-year percent changes of the commodity groups are done for the province, across provinces within the region and across regions of the country.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: Release of the CPI to the public is done every 5th day after the reference month at 9:00 am. It is posted at the NSO website (www.census.gov.ph) at 10:00 A.M. on the same day. When the 5th day falls on Saturday, the CPI is released on the 4th day of the month. However, when the 5th day falls on Sunday, the CPI is released on the 7th day of the month. An advance release calendar of release dates of the CPI for the following year is posted at NSO website every December of the current year. The NSO CPI is a subscriber of the IMF Special Data Dissemination Standard.

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: 2000-based CPI for the bottom 30% income households

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

Documentation

Publications and websites where indices can be found: “Summary Inflation Report Consumer Price Index (2006=100) for MM, YY” is posted at the NSO website (www.census.gov.ph) / Monthly Bulletin of Statistics


I: Other Information

Reported by the country in 2012.
Poland

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Central Statistical Office (CSO)

Periodicity: Monthly

Index reference period: Previous year =100

Weights reference period: Previous calendar 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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Population groups excluded: Institutional households.

Consumption expenditure excludes:

- In-kind goods received as gifts;
- In-kind services received as gifts;
- Life insurance premiums

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The CPI is the average measure of change in the prices of goods and services bought for consumption purposes by the households in Poland.

Classification: COICOP (Classification of individual consumption by purpose)

Sources of weights: Household expenditure surveys and national accounts.

Frequency of weight updates: Annual

Price updating of weight reference period to the index reference period: No, not needed.
D: Sample design

Sampling methods:

*Outlets*: Judgmental sampling

*Products*: Purposive sampling

Frequency of sample updates:

*Outlets*: Continuous (on a rotating basis)

*Products*: Annual

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Item selection: Purposive. Selected items should represent price movement of the commodity or service group and should be available for reasonable length of time. Number of representative goods and services per group depends on its weight and variability of price movement in the group. A list of representative items is updated annually. Selection of products/varieties is also purposive. Within item specification, price collectors, in cooperation with shop assistants, select products with significant market share.

Outlet selection: Price collection is done in various types of outlets, such as those of middle size and common type, specialized in certain assortments, departmental stores, supermarkets, big trade centers, and also pharmacies, petrol station, kiosks and permanent open-air market places. Prices are not collected in temporary sales points.

Sample sizes: On average, there are about 220,000 prices collected each month in 209 price survey regions.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: CSO supplies general specifications for most of the items to price collectors (e.g., women's jacket), who record detailed descriptions covering characteristics, such as brand, size, fabric/material, etc. However, fairly narrow descriptions for some items are also applied.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 209, Price observations: 220,000

Frequency with which prices are collected: Prices of goods and services are collected monthly, fresh fruits and vegetables prices are collected twice a month.

Reference period for data collection: Price collection is spread over between the 5th and 22nd of each month.

Methods of Price Collection
- Personal data collection
- Telephone interviews for centrally priced items.
- Internet
- Price lists sent by mail for centrally priced items.

**Treatment of:**

**Missing or faulty prices:** When a price observation is temporarily unavailable in a given month, its price is imputed.

**Disappearance of a given type or quality from the market:** If an item becomes permanently unavailable, a replacement is selected. The price collector is asked to find another item meeting the specification.

**Quality differences:** Quality parameters of products surveyed are carefully observed to ensure their comparability. Each change in their descriptions is considered. In case of quality change bridged overlap, 50%-option or option costs methods are mainly applied. If it is assessed not to be any substantial quality change then the price change is recorded as affecting the index 1:1. Hedonic methods are studied and some research is carried out.

**Appearance of new items:** The list of representative items is updated annually based on information gathered by price collectors during the year. Usually, the RSOs (regional statistical offices) are asked in August to send to the CSO their suggestions for changes. If their justifications for introducing new products on the list (or, conversely, deleting existing ones) are convincing and there are more such cases in the country, the proposal is considered at the annual meeting of CSO and RSO staff. New candidate products must represent a significant (and increasing) share in the turnover for the relevant group. Although it is recommended that the RSOs should keep the list of chosen products stable, replacements are necessary during the surveyed year if a new product appears on the market with a significant share of turnover.

**Treatment of seasonal items and seasonality**

**Seasonal food items:** Seasonal food items are included in the CPI using variable weights approach: the weights vary over the year.

**Seasonal Clothing:** Seasonal clothing items are included in the CPI using variable weights approach: the weights vary over the year.

**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:** Not included in the CPI.
**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:** Aggregation Laspeyres formula is applied for calculating price indices to higher-levels of aggregation using weights from previous year.

**Seasonally adjusted indices:** Data are not seasonally adjusted.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** Collectors verify all price changes and are required to provide explanation for unusual movements. Special software is used for this purpose. Statisticians analyze every item index to ensure that price movements are consistent with external information, such as market observation results, trade statistics and producer price statistics.

**Control procedures used to ensure the quality of data processed:** Compilers, analysts and statisticians check all stages of index compilation.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** 13 to 15 days after the end of the reference month.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**

**Publications and websites where indices can be found:** New release: Preliminary Results published in both Polish and English; Monthly: Statistical Bulletin published in both Polish and English; Quarterly: Poland—Quarterly Statistics is published in English; Other: The Statistical Yearbook published in Polish only; Internet website: [http://www.stat.gov.pl/gus/komunikaty_ENG_HTML.htm](http://www.stat.gov.pl/gus/komunikaty_ENG_HTML.htm) for the data published in Preliminary Results, Statistical Bulletin and Prices in the National Economy.

**Publications and websites where methodological information can be found:** The “Prices in the National Economy”, the Statistical Bulletin, and “Poland—Quarterly Statistics” publish information on methodological changes. In addition, major changes in methodology are announced about six months in advance in the “Statistical Survey Program of Official Statistics”.

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I: Other Information

Completed by ILO in 2013.

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 a 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.

Qatar

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Qatar Statistics Authority

Periodicity: Quarterly

Index reference period: 2007 = 100


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

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The CPI is a measure of price changes for goods and services consumed by all households in the country.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years.

Price updating of weight reference period to the index reference period: No, not needed.
D: Sample design

Sampling methods:

*Outlets*: Purposive sampling

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples**: The selection of items is based on their relative importance.

The selection of outlets is based on purposive sampling (as opposed to random sampling), where the SD (statistics department) selects the outlets based on their size and product range.

E: Data Collection

**Approximate number of localities, outlets and price observations**: Outlets: 400, Price observations: 3,000

**Frequency with which prices are collected**: The frequency of price collection depends on the item. Prices for vegetables, fruits and fish are collected at least once a week, but most prices are collected quarterly. Some prices are collected semi-annually or annually.

**Reference period for data collection**: The bulk of the prices are collected during the first half of each reference quarter.

**Methods of Price Collection**

- Personal data collection
- Official tariffs

**Treatment of:**

**Missing or faulty prices**: Missing prices are replaced with prices for the preceding quarter.

**Quality differences**: No explicit adjustments for quality changes are made to the CPI. However, when a new product replaces an old one, the method of overlapping is applied.

**Treatment of seasonal items and seasonality**

**Treatment of housing**

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**: The Laspeyres formula is used in the index calculations.
G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI data is disseminated within 6 weeks.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation

Publications and websites where indices can be found: The QCB (Quarterly Statistical Bulletin) and the SD (Annual Statistical Abstract) publish the CPI as a monthly index, even though monthly prices are collected for food items only. The QCB Quarterly Statistical Bulletin publishes annual CPI series (general CPI and indices for 8 major groups) for previous four years and quarterly series for previous one year. The SD/PC Annual Statistical Abstract publishes annual overall CPI data for seventeen years and monthly CPI for the reporting year (by 8 major groups and by 27 categories).

Publications and websites where methodological information can be found: Except from a summary documentation of the methodology in the Annual Bulletin of Prices and Index Numbers, which also includes an appendix with a description of the complete compilation process illustrated for a subgroup, there is no publicly available documentation of the methodology.

I: Other Information

Completed by ILO in 2013.

Republic of Belarus

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: National Statistical Committee of the Republic of Belarus

Periodicity: Monthly

Price reference period: December 2011 = 100

Index reference period: December 1990 = 100
Weights reference period: 2010

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: Urban areas

Population coverage: Resident households of nationals.

Population groups excluded: Institutional households and high income households.

Consumption expenditure includes:

- Food consumed away from home;
- Housing maintenance, minor repairs

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;
- Second hand goods purchased;
- Luxury goods;
- Financial services (including fees for financial advice, brokerage fees);
- Interest payments (excluding mortgage interest payments);
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- Life insurance premiums;
- Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
- 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: The CPI reflects changes over time in the price of a fixed set of goods and services actually consumed by Belarusian households. The CPI measures cash transaction prices including taxes.

Definition of consumption expenditures: The source for the consumption expenditure data is household consumption expenditure survey. Consumption is evaluated at purchaser’s prices which include trade and transportation margins, as well as less imposed subsidy taxes on products. The survey is based on multi-stage probability sampling. The sample includes all types of households. Consumption is defined 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: Annual

Price updating of weight reference period to the index reference period: Weights of 2010 expenditure survey used for the CPI estimation in 2012, are adjusted to December 2011, which is the base period for estimation.

Weights for different population groups or regions: The weights are compiled for 5% of families with the lowest income and 5% of families with high income.

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

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 remains the same.

Outlets: Annual
Products: Annual

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: 31 towns are selected for the CPI price collection (5 towns in every region of the country and the city of Minsk). More than 70% of total urban and more than 50% of total population of Belarus live there. Large, middle and small outlets are chosen for price collection. Also price collection is done in the open air markets. There are 1,114 organizations for food, 2,379 organizations for non-food goods, 2,005 for services. Three price quotes are recorded for each product at district level, five at the regional level, and 10 in the city of Minsk.

Selected items represent price movement of the commodity or service group and should be available for a reasonable length of time. Price collectors have freedom in selecting representative items in each outlet. The main criteria for price collectors is the volume of sales of a certain product, item variety should also include items of different producers and both of the native production and imported goods. Within item specification, price collectors, in cooperation with shop staff, select products with relatively large market share.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 31, Outlets: 5,498, Price observations: 50,000

Frequency with which prices are collected: Food – weekly, for other items - monthly

Reference period for data collection: The reference period for data collection is from the 10th to the 30th of each month.

Methods of Price Collection

- Personal data collection
- Telephone interviews
- Official tariffs for medicines.

Treatment of:

Discounts and sales prices: Seasonal discounts are collected, but discounts for damaged goods or past expiry date are not collected.

Black market prices: Not collected.

Second hand purchases: Not included.

Missing or faulty prices: Prices are adjusted by the rate of change of the other price observations of the same product
Period for allowing imputed missing prices: Imputing of missing price is generally allowed for 3 months. New products are selected in the terms of representation (volume of sales, quantity of sales). When there are several items to be replaced, the choice is given to the most similar to the old variety item. In some cases, list of bestsellers are used for selecting the item to be replaced.

**Disappearance of a given type or quality from the market:** When replacing similar product, its specification is checked by the statistical office.

**Quality differences:** Quantity adjustment (package size adjustment and explicit quality adjustment (for some products and services).

**Appearance of new items:** New items are introduced as they gain market share. Ad hoc surveys are conducted to identify new items and provide source data for weights and prices. New items are introduced in the month of December and are included in the CPI estimation beginning of January.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** Fresh fruits and vegetables, clothing.

**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:** One-room flats in typical buildings within different districts of the city which are to be rented for a period longer than 3 months. The data is collected monthly. Public, communications and other services; which are paid separately are not included in the rent data. The data is collected from the local housing and communal authorities (on the basis of tenancy contracts), and from estate agencies, (on the basis of the contracts).

**F: Computation**

**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index) (Direct form)
Formula to aggregate elementary indices to higher-level indices: On the first stage elementary indices are estimated in regional statistical departments. At the second stage of aggregation (held in the National Statistical Committee), a modified Laspeyres formula is used, where the 442 indices are aggregated into the national index.

Formula of aggregating regional/population group indices into national index: Regional elementary indices are aggregated into higher-level on the basis of the relative weight of each region by population size adjusted by the regional average share of consumption per 100 families in the total consumption of population in Belarus.

Monthly and annual average prices: Simple averages of prices are calculated.

Seasonally adjusted indices: No

Software used for calculating the CPI: MS Excel sheets, the new software for CPI estimation is in the process of creation.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Specification of products and prices are compared with previous month and questions transmitted to price collectors.

Control procedures used to ensure the quality of data processed: All the aggregates are analyzed to detect price movements.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI is published on the 9th day 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 and Average prices

Online: All items CPI, Group-level app. 40 groups, 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: Food, Non-food and for several kinds of services.

Documentation

Publications and websites where indices can be found: The official Belstat web-site: www.belstat.gov.by Price changes (monthly), Core inflation (monthly), Consumer price indices in the Republic of Belarus and in the CIS countries, Consumer price indices in the Republic of Belarus and other countries, Publication “Prices in the Republic of Belarus”
(annual), Electronic tables “Consumer price indices in the Republic of Belarus”. Average prices of goods in the Republic of Belarus, Average prices of services for population in the Republic of Belarus, Data published in accordance with the SDDS of the IMF, Statistical Yearbook of the Republic of Belarus, Price Indices of Consumer Goods and Services and Produced Industrial and Agricultural Output (is distributed in paper and electronic formats to users).

Publications and websites where methodological information can be found:
www.belstat.gov.by Price changes in May 2012

I: Other Information

Reported by the country in 2012.

Republic of Croatia

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Croatian Bureau of Statistics (CBS)

Periodicity: Monthly

Price reference period: 2005

Index reference period: 2005

Weights reference period: 2010

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: Urban areas

Population coverage: Resident households of nationals.

Population groups excluded: Institutional households (0.05%).
Consumption expenditure includes:

- Food consumed away from home;
- Housing maintenance, minor repairs;
- Financial services (including fees for financial advice, brokerage fees);
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- Second hand goods purchased (second hand cars only);
- 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;
- 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: The consumer price index (CPI) measures changes in the price of goods and services acquired, used or paid over time by a reference population (private households) for consumption purposes. The CPI can be used as a measure of inflation, it can serve to guarantee the value of recurrent payments in escalator clauses for contractual relationships (for example, the CPI can serve for indexing wages and salaries in collective agreements, for indexing pensions etc.), it enables a comparison of inflation in the country with inflation in other countries as well as a comparison of price movements within a particular country between different economy sectors. It can also serve as a basis for deflating national accounts data and other statistical series and can be used for analytical purposes.

Definition of consumption expenditures: Consumption is defined in terms of payment.
**Classification:** COICOP (Classification of individual consumption by purpose) at 4-digit level (as from 1998)

**Weights include value of consumption from own production:** No

**Sources of weights:** Household expenditure surveys and data from state institutions.

**Frequency of weight updates:** Every 3-5 years

**Price updating of weight reference period to the index reference period:** Since January 2012, the compilation of the CPIs has been based on the weights derived from three-year average household expenditures from 2008 to the 2010 Household Budget Survey, recalculated into prices in December 2011. Every subsequent year they are partly updated according to changes in prices in a previous year.

**Weights for different population groups or regions:** Weights are compiled for urban areas included in price collection.

**D: Sample design**

**Sampling methods:**

- **Localities:** Sampling with probability proportional to size (PPS)
- **Outlets:** Judgmental sampling
- **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:** Annual
- **Outlets:** Annual
- **Products:** Annual

**If sample updates are irregular indicate when last updates were introduced:** Outlet sample is updated annually (in December), and major revision takes place every five years, simultaneously with the construction of a new weighting structure. From 2012 sample will be updated annually.

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:** The main criteria used for determining the optimal sample size for localities is the largest consumption as well as the number of population.

For outlets and items the criteria used in determining the optimal sample size is the largest sales.
Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: For products whose prices are collected locally, the CBS supplies loose specifications to price collectors and collectors are initially free to select particular products for pricing in a particular outlet. The selection of a particular product offer is done according to the criteria of which product is the most sold in the outlet. In order to make sure that the same products are then re-priced each month, as well as to monitor which products are selected for pricing, the price collectors should also record a pre-defined set of additional product characteristics.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 9, Outlets: 5,500, Price observations: 34,900

Frequency with which prices are collected: Prices are collected monthly, except for motor car fuels, for which prices are collected weekly.

Reference period for data collection: For the purposes of the consumer price index, prices are recorded on the following days of the month: for agricultural products sold in market places, on the third Friday in a month; for food products, from 18th to 23rd in a month; for industrial non-food products, from 13th to 20th in a month; for services, from 16th to 18th in a month; fuels for motor cars, weekly.

Methods of Price Collection

- Personal data collection for all prices which are collected locally – food and non-alcoholic beverages, alcoholic beverages and tobacco, clothing and footwear, furnishings, household equipment and routine maintenance of the house, passenger transport by bus, passenger transport in the city, good and services for recreation and culture, catering services, other goods and services for personal consumption.

- Mailed questionnaires for some prices which are collected centrally - state monopolies and nationally homogeneous prices.

- Telephone interviews for some centrally collected prices – for health services, legal services, veterinary services, insurance services, fees for private schools, verification of signatures by a notary public etc.)

- Internet for some centrally collected prices – for telecommunications services, electricity, water and sewerage, postal services, banking services; price lists for cars and scooters, fuels (petrol, diesel, gas), fares paid in passenger transport by sea, tolls for motorways, prices of holiday packages or tours (national parks).

- Official tariffs for some centrally collected prices – for electricity, fuels (petrol, diesel, gas), pharmaceutical products, water and sewerage, refuse collection, cigarettes, health services; tolls for motorways, TV fee, administrative fees for passport, universities fees, costs of road worthiness tests.

Treatment of:
Discounts and sales prices: They are used in the calculation of the index.

Black market prices: Not collected.

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

Missing or faulty prices: When products are temporarily missing, extrapolation is implemented by using the change of the other prices for the same item.

Period for allowing imputed missing prices: Maximum two months. If prices are unavailable for more than two subsequent months, a replacement product must be selected.

Disappearance of a given type or quality from the market: When the product is permanently missing (non-seasonal items), a replacement product must be selected and price collectors select similar and comparable items, with (where possible) the same quality in the same or similar outlet. The replacement product’s price must be imputed in the price reference period (December of the previous year).

Quality differences: The choice of an appropriate method depends on the availability of appropriate data as well as on the structure of products within an elementary aggregate: a) Characteristics of the product selected as a replacement are directly comparable to those of the replaced product, so the price collector simply substitutes the price of the replacement for the price of the replaced product (direct comparison approach). b) The extent of differences in characteristics between the replacement and the old product is so great that it is not possible to estimate the quality difference (a wholly new product). The price of the new product is then imputed in the price reference period. This is done by extrapolation (it is implicitly assumed that the price movements of the new product during the period in which its price was not recorded correspond to the price movements of other products in the same elementary aggregate).

Appearance of new items: Newly significant goods and services are introduced annually (in December). When the available data show that a new product, which is responsible for a significant share in the expenditure structure of the reference population, has appeared on the market, the following procedures are applied: i) the appearance of a new product within an existing elementary aggregate. It is necessary to determine whether a completely new product has entered the market or the new product is a replacement for an existing one. If the latter is the case, the new product is included in the calculation of the elementary aggregate index, using appropriate methods for the estimation of quality differences. In the former case, the price of the new product in the price reference period is imputed. ii) The appearance of a new product with no pre-assigned weight. Since the availability of evidence for the rising significance of expenditure on a new product in the total expenditure of the reference population will coincide with the availability of new weighting information, a weight is assigned to the new product at the time of re-weighting.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: For the treatment of seasonal products All-seasonal estimation (ASE) method is used. In the Croatian CPI seasonal products are fruits, vegetables, clothing and footwear and accommodation in camps. ASE method is a method were in the first month of the out-of-season period, the estimated price is
equal to a typical price observed in the previous in-season period, and from the second month, the estimated price is equal to the estimated price for the preceding month, adjusted by the change in observed prices on average over all available products in the same COICOP class, group or on more detailed level (elementary aggregate).

**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.

**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:** The modified Laspeyres formula given by

\[ I = \frac{\sum P_n \times W_0}{\sum W_0} \]

where

- \( P_n \): price in the current period (month)
- \( P_0 \): price in the base period
- \( W_0 \): relative structure of the sales value in the base period
- \( I \): Index

**Formula of aggregating regional/population group indices into national index:**

\[ I_t = \frac{\sum_{i=1}^{n} w_{t,i} \times I_i}{\sum_{i=1}^{n} w_i} \]

Aggregate elementary indices on the cities level are calculated as weighted arithmetic mean of corresponding elementary indices and cities weights.

**G: Editing and validation procedures**
Control procedures used to ensure the quality of data collected: Collected prices are first checked and verified by the CBS price experts prior and during the process of data entering into PC application, which also performs an automatic validation. Each price change must be explained with the special code system defined in the program. After that invalidated process, prices are additionally checked by CBS price experts who personally contact the price collectors in country statistical offices.

Control procedures used to ensure the quality of data processed: The Price Division specialists analyze first results and indices to ensure that movements are consistent with information about products and retail market movements.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: 2 weeks after the end of the reference month, with an exception for December and January data which are published no later than 3 weeks after the end of the reference month.

Level of detailed CPI published

Paper publication: Class-level (100 classes)

Online: 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: Average prices are calculated for all products but used only for internal purposes and made available upon specific user’s requests.

Documentation


Publications and websites where methodological information can be found: Short explanation of the CPI methodology is given in every issue of the “First release: Consumer Price Indices”. More thorough methodological descriptions and definitions can be found in every issue of the Monthly Statistical Report, annual Statistical Report: Prices as well as in the Statistical Yearbook. The methodological explanations are available in both Croatian and English in all mentioned publications at http://www.dzs.hr.

I: Other Information

Reported by the country in 2012.
Republic of Macedonia

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: State Statistical Office of the Republic of Macedonia (SSOM)

Periodicity: Monthly

Price reference period: Year t-1=100

Index reference period: Year t-1=100

Weights reference period: 2010

Main uses of CPI: Indexation of wages, pensions and/or social security payment, main inflation indicator used for monetary policy and deflate household expenditures in national accounts.

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;
- Major repairs, conversions and extensions to owner occupied housing;
- Purchase of gifts of goods and services given to others outside the household;
- 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)

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;
Second hand goods purchased;
Luxury goods;
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: The CPI is defined as an indicator of movements of the products’ prices aimed for personal consumption. The Consumer Price Index is a central indicator that is used to determine price stability in the country.

Definition of consumption expenditures: Consumption expenditures used for derivation of the weights are received from Household Budget Survey and they are defined as paid expenditures for personal consumption.

Classification: COICOP (Classification of individual consumption by purpose) at 5-digit level

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys, administrative or statistical sources such as census, social statistics, national accounts, transport statistics, catering services etc.

Frequency of weight updates: Every 3-5 years

Price updating of weight reference period to the index reference period: The weights in CPI 2012 are based on HBS carried out in 2010 and every year the weights are price updated.

Weights for different population groups or regions: No.

D: Sample design

Sampling methods:
Localities: Judgmental sampling

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

Products: Judgmental sampling

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: Largest urban centers within each statistical region are selected as localities. The outlets are selected with purposive sampling. The outlets are selected according to their turnover, number of customers, specialization, etc. Outlets are selected on regional level, so general guidelines are given to local staff from Regional Statistical Offices, responsible for price collection in order to adjust the structure of the outlets to the evolution of retail trade structure (e.g. increasing ratio of supermarket).

The representative items to be priced are selected judgmentally at the end of every year by SSOM price statistics staff, which also determines their specification. The product list is updated at the end of each year. At that time it is possible to include newly significant goods and services in the index computation.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Price collectors from Regional Offices monitoring the market, giving to us (SSOM price statistics staff), useful information about the item varieties with the highest turnover. Using this information, SSOM price staff makes definitive decision.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 8, Outlets: 1,500, Price observations: 15,000

Frequency with which prices are collected: All prices are collected once per month, except agriculture products, which are collected twice per month, in the first and third week.

Reference period for data collection: The reference period for data collection is as follows: Agriculture products first time (from 1st to 7th) and second time (from 16th to 21st day of the month); Non-food products from 1st to 25th day of the month, Food products from 11th to 17th day of the month; Services from 14th to 22nd day of the month

Methods of Price Collection
- Personal data collection for most of the items.

- Internet for communication, IT equipments, etc.

- Official tariffs for electricity, central heating, oil derivates, administrative services, etc.

**Treatment of:**

**Discounts and sales prices:** Seasonal sales, other sales prices and reduced prices (e.g. special offers, discounts, etc.) are included in the index when they are available to all potential consumers with no special conditions attached.

**Black market prices:** Not collected.

**Second hand purchases:** Not included.

**Missing or faulty prices:** Missing prices of goods and services (excluding seasonal items like fruits, vegetables), are treated by carrying forward the previous observed price.

Period for allowing imputed missing prices: Prices are carried forward for a maximum of 2 months, then replacement with some new items, of similar specifications like the “old” ones is done.

**Disappearance of a given type or quality from the market:** In case an item disappears from the market, item replacement is done by the price collector. New similar products replace the old ones and the price difference between the two products counts as price change in the calculation of the index. In the case of “new” items, with slight different specifications than the old one, i.e. introduction of products with new specification follows the annual revision.

**Quality differences:** For new cars, washing machines and electric drills, the 50% option pricing method has been implemented whereas for other durables like TV sets, cameras, air-conditioners and PCs direct comparison is still the preferred method for quality adjustment. Mobile phones: only classical types/models with pre-paid system are included in the basket, every 3 months new models are implemented which is done by direct comparison.

**Appearance of new items:** Entirely new items could be included only at the beginning of the year.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** For fruits and vegetables the weighting is with fixed weights all the year out. In the first out-of-season month the price of the last seasonal month is taken. In the second out-of-season month this price is then adjusted by the change in observed prices on average over all available products in the same COICOP subdivision (all-seasonal estimation). Same method is applied for seasonal adjustment of clothing and footwear items and package holidays, which also show a clear seasonal pattern.
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.

Treatment of housing

Treatment of owner-occupied housing: Imputed rents for owner occupied housing are not included in the CPI.

Types of dwellings covered by the rent data: There are two kinds of rents: state ownership dwellings and owner-occupied dwellings. The state rents are administrative prices by square meter of empty dwelling. The owner-occupied dwellings rents are collected each month, and they are with specific characteristics (50-55 m², empty dwellings), located in different city zones.

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: For computation at higher-level indices, weighted arithmetical mean by the appropriate share of total inhabitants or share of turnover is used.

Monthly and annual average prices: Average monthly prices are obtained by applying a weighted arithmetical mean, where by average prices in particular cities are weighted with the sold quantity of particular goods in those cities. The average annual prices are obtained by applying an arithmetical average of the prices over a period of 12 months.


Software used for calculating the CPI: Microsoft Access.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Data collection, first checking and data transmission to the SSOM is done at the regional level. The other responsibilities of regional staff are cooperation with sales managers of outlets, exploration of the reasons of the significant changes in prices, entry of the primary data in the Excel sheet and first verification of prices. The price collectors work under supervision of CPI central staff in SSOM. Data collectors in regional offices record the prices in paper form questionnaire in each month. Then in the regional offices, data for current prices are entered in common special Excel files prepared by SSOM, and at the same time they put code letter for each price having view on the price from previous month. These files are transmitted from
regional offices to SSOM by e-mail. The control procedure continues in SSOM. Once again all prices are checked, and then central recorded prices (electricity, oil derivates, cigarettes, railway transport …etc.) are added. Then in cooperation with the price collectors in regional offices, few “problematic” prices are checked again to be sure that collected prices are correct. After that all changed prices compared to previous month are entered in SSOM in special application in Access.

**Control procedures used to ensure the quality of data processed:** Data is checked to verify whether changes are entered correctly. The SSOM staff systematically and visually identifies any figures of unusual price movements. After all these checking procedures, SSOM proceeds with CPI calculations.

**H: Documentation and dissemination**

**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), Group-level app. 40 groups, Class-level (100 classes)

**Documentation**


**Publications and websites where methodological information can be found:** Statistical Yearbook, [http://www.stat.gov.mk/PrikaziPublikacija_1_en.a.spx?rbr=246](http://www.stat.gov.mk/PrikaziPublikacija_1_en.a.spx?rbr=246)

**I: Other Information**

Reported by the country in 2012.

**Republic of Mauritius**

**A: Identification**

**Title of the CPI:** Consumer Price Index

**Organisation responsible:** Statistics Mauritius
Periodicity: Monthly

Price reference period: July 2006 – June 2007 = 100

Index reference period: July 2006 – June 2007 = 100

Weights reference period: July 2006 – June 2007

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.

Population groups excluded: Institutional households (0.6%).

Consumption expenditure includes:

- Food consumed away from home;
- Mortgage interest;
- 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)

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;
• Major repairs, conversions and extensions to owner occupied housing;
• 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: The CPI is an indicator of changes over time in the general level of prices of goods and services acquired by Mauritian consumers. As prices change, the total cost of the basket also changes and thus the CPI is a measure of the change in the cost of this fixed basket. It provides a way to compare what this basket costs at a given period relative to a reference or base period. The composition of this basket reflects the general consumption pattern of all types of private households of the Republic of Mauritius. The CPI is the most widely used measure of inflation. It plays a major role in formulating the monetary and fiscal policy of government. It is often used, among other indicators, to assess the effectiveness of government economic policy. The CPI is also commonly used for adjustment of wages, pensions and social security benefits to compensate for erosion of purchasing power as prices increase. Furthermore, many financial arrangements make use of the CPI. For instance, payments associated with private contracts, insurance premiums, rent, alimony, etc. are often indexed on the CPI. The CPI is also resorted to for the conversion of a series measured at current prices to a constant price series. Such conversion which is known as deflation, gives a better indication of changes in real terms (volume) by adjusting for price changes. For example, the CPI is often used to deflate the value of the rupee to calculate the purchasing power. The CPI is used as a deflator in National Account compilation.

Definition of consumption expenditures: Detailed expenditure information given by households during the Household Budget Survey (HBS) 2006/07 provided the starting point for determining the CPI basket. The acquisition approach is used; expenditure is recorded during the month in which they are acquired, even if they were not yet delivered or paid for. The survey data were first checked for consistency against data from other independent sources (data on production, imports, exports and local sales) and were found to be in line, except for alcoholic beverages and cigarettes. Some adjustments were thus made to the HBS data for underreporting of alcoholic beverages and cigarettes. Since the CPI is designed to reflect price movements of goods and services entering consumption, only household consumption expenditure was used to derive the CPI weights. Besides, as the interest of the index is for prices paid for goods and services bought on the market, imputed values of consumption (such as consumption of own-produced goods as well as goods and services received free) were excluded. The following items, which did not fall within the scope of the CPI, were thus excluded: a) income tax, savings, life insurance premiums, loan repayments (other than housing loan) and social security contributions, b) investment-related items such as purchase of land, houses, shares, etc., c) expenditure associated with gambling, d) goods and services received free from government (such as education and health) and from other sources, e) consumption of own-produced goods and services e.g. vegetables grown and
consumed by the household, rental value of owner-occupied and free housing, f) Travelling expenses to work (since these are intermediate expenses for the employer). For infrequent purchased items such as air tickets, cars, computers and other household durables, data collected over a recall period of one year (instead of the usual reference month) was used in order to obtain more reliable expenditure estimates for deriving the weights.

**Classification:** COICOP (Classification of Consumption Expenditure according to Purpose) at four levels with 12 divisions, 43 groups, 84 classes and 194 items.

**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:** The weights and the index reference period are the same i.e. 2006/07, there is therefore no need to price update weights.

**D: Sample design**

**Sampling methods:**

*Localities:* Sampling with probability proportional to size (PPS)

*Outlets:* Cut-off sampling (the elements with the highest sales or value of other auxiliary variable are included into the sample), based on most popular products and outlets.

*Products:* Cut-off sampling (the elements with the highest sales or value of other auxiliary variable are included into the sample), based on most popular products and outlets

**Frequency of sample updates:**

*Localities:* At the time of conducting HES, every 5 years.

*Outlets:* Continuous (on a rotating basis)

*Products:* Continuous (on a rotating basis)

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:** Following the recommendations of the ILO Consultant, the present number of price quotations for each item is to arrive at an optimum number that leads to a more accurate and cost-effective index. The number of price quotations for a given item is determined according to the coefficient of variation of the prices. When the coefficient of variation is high, there are more price quotations; alternatively if the coefficient of variation is low, fewer price quotations are used. Also, items which carry more weight have a greater impact on the overall CPI than those with less weight. More price quotations are used for items which carry more weight.
Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: In case of loose specification, an indicator with specification nearest to the defined one and being most popular and within the price range is chosen.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 10, Outlets: 480, Price observations: 7,800

Frequency with which prices are collected: Prices of non-perishables are collected monthly in the nine geographical districts of the island of Mauritius and in Island of Rodrigues. Prices of fresh fruits, vegetables, meat and fish are collected on a weekly basis in 9 localities. Information on rent is obtained from a quarterly rent survey of some 100 rented dwellings. Price collection is done on a regular basis. Each month, around 7,800 price quotations are collected in respect of 1,080 item indicators from some 400 outlets selected to be representative of regions across the islands of Mauritius and Rodrigues.

Reference period for data collection: The prices of perishables items are collected on a weekly basis (always on the same day and in a two-hour time interval), whilst those for non-perishables are recorded once a month on a day falling between the 12th and 18th.

Methods of Price Collection

- Personal data collection for all items.
- Mailed questionnaires for insurance and airfare.
- Telephone interviews for administrative data.
- Internet for internet, mortgage interest or other communication services.
- Official tariffs for utilities and petroleum products.

Treatment of:

Discounts and sales prices: They are used in the calculation of the index.

Second hand purchases: Included for second-hand motor cars (actual price paid is used). For new basket of goods and services based on 2012 HBS, the new acquisition method will be used.

Missing or faulty prices: Whenever a product is temporarily not available in an outlet, the missing price is imputed on the basis of the price changes of similar products in other outlets within the same period if this non-availability is likely to be temporary.

Period for allowing imputed missing prices: Maximum 2 months. The item is replaced by a similar within the same price range in the third month.
Disappearance of a given type or quality from the market: In cases when a product is no longer available on the market, then it is replaced by the nearest similar product falling under the same class and price adjustments are made for the difference in the quality of the substitute. When substitution is done, the base price of the substitute is imputed. This is done by assuming that the substitute follows the same price change as the replaced product from the base period to the latest overlap period when both prices are available. Usually, substitutes are priced to cater for this situation though their prices do not enter the CPI computation unless and until a replacement is done. A product which disappears permanently or is no longer available or sold in significant quantities is replaced within the first three months of the product becoming unavailable.

Quality differences: It is often observed that the quality of certain products that are being priced change over time; their components or size may change. When this happens, it is necessary to separate only “pure” price changes. A common adjustment technique is to determine which feature of a product causes the quality to change. The price of the replacement used should be adjusted for any quality difference between the old and new variety. If, for example, air conditioning becomes a regular feature in the newer model of a car, then we need to price models with that feature. In order to compare prices of older and newer models, a quality adjustment needs to be made. After consultation with the suppliers, the value of air conditioning is estimated and is added to the price of the older model. The prices of the two cars then become comparable since the price of air conditioning is included in both.

Appearance of new items: In Mauritius, the CPI basket is updated every 5 years following the conduct of a Household Budget Survey to account for changes in the consumption pattern of the population. The consumption pattern of the population changes slowly over time and 5 years is considered a reasonable interval. Completely new types of goods and services (those that represent new purpose) are considered for inclusion only during one of the periodic re-weighting exercises.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Certain fresh vegetables are subject to seasonal fluctuations; their prices vary considerably from month to month depending on their availability. In order to smooth out the seasonal price variations, a 12-month moving average price is calculated for seasonal fresh vegetables such as tomatoes, French beans (haricot vert), cabbage, chou chou and chillies. Instead of the actual price, the 12-month moving average price is used in the computation of the overall CPI.

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.

Treatment of housing
Treatment of owner-occupied housing: Imputed rents for owner occupied housing are not included in the CPI.

Types of dwellings covered by the rent data: Rent paid for rented dwellings are included and a rent survey of about 100 rented dwellings is conducted quarterly to represent this component. The sample of 100 rented dwellings is extracted from covered rental dwellings during the Household Budget Survey 2006/07 using systematic and stratified sampling method.

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: The lowest level indices are determined as a geometric average of the price relatives of the basic observations. The lowest level indices are aggregated according to the Laspeyres formulae. The CPI is computed according to the Laspeyres Formula as a weighted average of price relatives of individual items. The weights are fixed and correspond to the base period expenditures. The Laspeyres Index measures the cost of a basket of goods and services at different points in time, relative to the cost of the same basket in the base period. The formula used for computing the CPI at time $t$ is

$$I_t = \frac{\sum W_i \left( \frac{P_{it}}{P_{i0}} \right)}{\sum W_i} \times 100$$

where,
- $I_t$ = CPI for period $t$ with reference to a base period 0
- $P_{i0}$ = Price of item $i$ at time 0, i.e. during base period
- $P_{it}$ = Price of item $i$ at time $t$
- $W_i$ = Weight of item $i$

Formula of aggregating regional/population group indices into national index: No regional index is produced. Only CPI is produced at national level.

Software used for calculating the CPI: Excel-based system and FoxPro-based system (a parallel worksheet for control) which is being replaced by a newly developed system web-based JAVA application.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Supervisors regularly visit the outlets to verify that the prices reported are correct and related to the relevant products. Collected prices are validated after proper editing. All prices used for the CPI are edited to ensure that they actually correspond to the same item. Comparisons are made with previous month and across the regions. Major discrepancies in data collected are subject to more control from supervisor.
Control procedures used to ensure the quality of data processed: The twelve sub-indices published with the monthly CPI make it possible to access the reasonableness of the data. Cross-checks are possible with selected items of the producer price and the import price indices. Unusual movement in the index are investigated regularly. A parallel processing in Excel and FoxPro is done to ensure correctness of CPI.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The monthly CPI is released within 5 working days after the end of the reference month. The publication on CPI is released 2 weeks after the end of the quarter. The timeliness is in conformity with that prescribed for SDDS (special data dissemination standard). The statistics are released on a pre-announced schedule which is posted on the website of the office.

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

Documentation

Publications and websites where indices can be found: Monthly Consumer Price Index and Economic and Social Indicator on CPI at http://statsmauritius.gov.mu and http://www.gov.mu/portal/site/cso/menuitem.dee225f644ffe2aa338852f8a0208a0c/?content_id=e4b5700094d6c010VgnVCM100000a04a8c0RCRD


I: Other Information

Reported by the country in 2012.

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


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:

\[ L_{t0} = \sum I_{l0} \left( \frac{p_0 q_0}{\sum p_0 q_0} \right) \]

\[ L_{t0} \] = aggregate index of the current month (l) of year \( t \) (2012) as against the reference (base) year, \( t-2 \) (2010);

\[ I_{l0} \] = 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.

Russian Federation (Russia)

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Federal State Statistics Service (Rosstat)

Periodicity: Monthly

Price reference period: 01/12/2011

Index reference period: 01/12/2011

Weights reference period: 4th quarter 2010 + 9 months 2011

Main uses of CPI: Indexation of wages, pensions and/or social security payment, main inflation indicator used for monetary policy, deflate household expenditures in national accounts, macroeconomic modelling and other analytic uses.

B: CPI Coverage
Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Population groups excluded: Institutional households.

Consumption expenditure includes:

• Food consumed away from home;
• Mortgage interest;
• Housing maintenance, minor repairs;
• Purchase of gifts of goods and services given to others outside the household;
• Second hand goods purchased (foreign second hand passenger car and PCs);
• Financial services (including fees for financial advice, brokerage fees);
• Interest payments (excluding mortgage interest payments);
• 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;
• Expenditures abroad

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;
• Major repairs, conversions and extensions to owner occupied housing;
• Luxury goods;
• 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

C: Concepts, definitions, classifications and weights
Definition of the CPI and its objectives: Consumer price indices and tariffs for goods and services (CPI) measure the changes over time in the general level of prices of goods and services purchased by households for non-productive consumption.

Definition of consumption expenditures: Consumption expenditures of households are part of cash expenses which are purchased on getting consumer goods and services. Accounting is made for the full costs of goods and services, irrespective of whether they are wholly or partly paid at the moment of purchasing and for which purpose they are intended (for personal use or for donation to another household). The consumer expenditure does not include the expenditures related to the purchase of works of art, antiques and jewellery acquired as investments, payment for materials work on construction and major repair of residential and out buildings, which are considered investments.

Classification: COICOP (Classification of individual consumption by purpose) at the 7th sign level (since 2004).

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: No. Rosstat use survey data of household budget for non-calendar year (i.e., 2012: 4th quarter of 2010 + 9 months of 2011.), which are given to the base period (December 2011).

Weights for different population groups or regions: In accordance with the CPI methodology, weights are derived for: each constituent territory of the Russian Federation; each Federal District; and population groups with different levels of income (by decile groups).

D: Sample design

Sampling methods:

Localities: Sampling with probability proportional to size (PPS)

Outlets: Stratified sampling with PPS sampling in each stratum

Products: Judgmental sampling

Frequency of sample updates:

Localities: Periodically

Outlets: Annual

Products: Continuous (on a rotating basis)
If sample updates are irregular indicate when last updates were introduced: The sample of localities is updated on the basis of the census results and proposals are made by regional offices of state statistics.

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Prices are collected in all constitute territory of the Russian Federation. The selection of cities for the price observation in the constitute territory of the Russian Federation is performed by: the total number of surveyed localities in all constitute territory of the Russian Federation and should be 2-4 cities; Cities which are selected for the price observation should reflect the geographical features of the region and be located on its various parts; population of the cities which are selected for the price observation should comprise of at least 35% of urban population in each constitute territory of the Russian Federation.

Establishments of trade and services are selected in every city and they are located in both central parts of the city and on its suburbs with different terms of trade (services). Establishments of trade and services are included in the sample if they have high retail turnover and they are encashed, on consumer attributes and price level, directed on mass-market consumer.

Outlets, supermarkets, showrooms are selected and included in the sample with probability proportional to establishment sales of trade and services in the total sales.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 271, Outlets: 61,786, Price observations: 657,182

Frequency with which prices are collected: Monthly.

Reference period for data collection: Price collection takes place from 21st to 25th day of each month.

Methods of Price Collection

- Personal data collection for all items.

- Telephone interviews for selected services.

- Internet for tariffs on railway service and prices for medicines.

- Official tariffs for tariffs on certain types of communication and housing services.

Treatment of:

Discounts and sales prices: Discounted goods prices are registered if the sale is over 14 days.

Second hand purchases: Included for foreign second-hand passenger car, PCs.
Period for allowing imputed missing prices: 3 months

**Disappearance of a given type or quality from the market:** Replacement with similar quality characteristics is selected.

**Quality differences:** Implicit quality adjustment method is used. There are recommendations for treating quality differences which are described in “Methodological provisions for observation of consumer prices and consumer price indexes” and confirmed by Rosstat.

**Appearance of new items:** In the first reporting year, the prices of a new item product (which is different by qualitative characteristics) are collected each month but not included in the calculation of the index. When the average consumer prices are calculated, the prices are used by two related periods (months) for one and the same item. For the new item (service) to be included in reference year the share of this group of goods (services) in total consumer expenditures for the previous (removed) year should be at least 0.1%.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** Seasonal items include fruits and vegetables, clothes, shoes, funeral services, foreign tourism services; spa and health services.

**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 included in the CPI

**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:**

\[
I_{t,t-1} = \frac{\sum_{j=1}^{n} p_{j,o} q_{j,0} i_{j,t/t/d}}{\sum_{j=1}^{n} p_{j,0} q_{j,0} i_{j,t-1/t/d}}
\]
where:

$I_{t/t-1}$ – Composite index of consumer prices and tariffs for the group of goods (services) of the Russian Federation;

$p_{i,j,0}q_{i,j,0}$ – Household expenditure quota on the purchase of goods (services), the representative (the weight reference period);

$i_{j,t/d}$ – Index of commodity (service) prices (tariffs) to the representative of the accounting month to December of the previous year;

$i_{j,t-1/d}$ – Index of commodity (service) prices (tariffs) to the representative of the previous month to December of the previous year;

$t$ – Current period;

$t - 1$ – Previous period;

$n$ – Quantity of goods (services).

**Formula of aggregating regional/population group indices into national index:** The formula is the same as the one above.

**Monthly and annual average prices:** Average prices are calculated monthly.

**Seasonally adjusted indices:** No

**Software used for calculating the CPI:** Specially designed software developed for Rosstat.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** Territorial authorities of Rosstat and main Rosstat computing center validate the input information in accordance with the procedure laid down in the software for automated data processing, developed by Rosstat. A number of checks on prices collected are executed each month at the regional level. They are undertaken in accordance with the methodological guidance developed by Rosstat.

**Control procedures used to ensure the quality of data processed:** Checking of the prices collected in cities is carried out by using special software for data collection, on terminals and is computerised.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** The first results for the Russian Federation CPI are disseminated on the web-site 4-5 days after the end of the reference month. Information on consumer price indexes and average prices on goods and services is disseminated with monthly periodicity on the official web-site of the Federal State Statistics Service on the 6th working day following the reference month.

**Level of detailed CPI published**

**Paper publication:** Division-level (12 Divisions), Basic Items
Online: All items CPI, Division-level (12 Divisions), Group-level app. 40 groups, Class-level (100 classes), Basic items, Average prices

Separate indices published for specific population groups: CPI for the 10 deciles (population groups with different levels of income) is estimated by the national classification. Major indexes in Rosstat collection-books are published with the lowest and highest decile: all goods and services, food products, non-food goods, services

Type of products for which average prices are calculated and disseminated: Average prices are calculated for all goods and services included in the CPI basket in 2012: 503 types of goods and services.

Documentation


I: Other Information

Reported by the country in 2012.

Rwanda

A: Identification

Title of the CPI: All Rwanda Consumer Price Index

Organisation responsible: Department of Economic Statistics (DES) of the National Institute of Statistics of Rwanda (NISR)

Periodicity: Monthly

Index reference period: February 2009 = 100

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 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.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index (CPI) is a measure of the average change over time of goods and services purchased by households.

Classification: COICOP (Classification of individual consumption by purpose).

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 are price updated by multiplying the original weights by elementary indices measuring the price changes between the weight reference period and the price reference period and re-scaling to unity.

D: Sample design

E: Data Collection

Approximate number of localities, outlets and price observations: Price observations: 29,200

Frequency with which prices are collected: Prices are collected every month for items within each of the five regions – Kigali, Northern, Southern, Eastern, and Western.

Reference period for data collection: Data collection is scheduled in terms of business days (that is, weekdays excluding holidays) during the first (full) and third weeks of each month.

Methods of Price Collection

- Personal data collection

- Official tariffs
Treatment of:

**Missing or faulty prices:** The NISR imputes all temporarily missing price observations using one of the two methods – cell-mean imputation or class-mean imputation. Price observations that are missing for more than one period are imputed until a price can be collected.

**Treatment of seasonal items and seasonality**

**Treatment of housing**

**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:** The modified Laspeyres formula is used to aggregate elementary indices into high-level indices.

**G: Editing and validation procedures**

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** The data for the consumer price index for a particular month (n) is available on the 15th of next month (n + 1).

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**

**Publications and websites where indices can be found:** The "Consumer Price Index” in French and English, National Bank of Rwanda "Quarterly Bulletin” (in French and English), National Bank of Rwanda "Annual Report" (in French and English); Internet website: http://statistics.gov.rw/

**Publications and websites where methodological information can be found:** The documentation on methodology and sources of the CPI is not published, but is available upon request.

**I: Other Information**

Completed by ILO in 2013.
Samoa

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Samoa Bureau of Statistics

Periodicity: Monthly

Index reference period: August 2010 = 100


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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Main city (can include surrounding areas)

Price collection: Main city (can include surrounding areas)

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Classification: COICOP (Classification of individual consumption by purpose) with 12 groups.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Every 3-5 years

D: Sample design

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 74, Price observations: 1,400

Frequency with which prices are collected: Prices are collected monthly.

Reference period for data collection: Prices are collected at mid-month and every Friday for local produce and fish markets.
Methods of Price Collection

- Personal data collection

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

**Formula to aggregate elementary indices to higher-level indices:** The CPI is based on a Laspeyres weighted average index.

G: Editing and validation procedures

H: Documentation and dissemination

**Timeliness of dissemination of the CPI data:** The CPI is released 7 working days after the end of the reference month. A summary presentation is released a few days later in Samoan.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**

**Publications and websites where indices can be found:** The CPI is published in the monthly publication “Consumer Price Index”, a publication of SBS, Quarterly Economic Review, a publication of the Ministry of Finance, Central Bank of Samoa Bulletin, Samoa Statistics Abstract (currently published once every two years); Internet website: [http://www.sbs.gov.ws/](http://www.sbs.gov.ws/)

**Publications and websites where methodological information can be found:** No methodological documentation explaining the sources and methods of calculation of the CPI is made available to the general public. However, the quarterly publication Consumer Price Index publishes the specific COICOP commodities used in computing the CPI, their respective weights and the weights of the groupings.

I: Other Information

Completed by ILO in 2013.

San Marino
A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Office of Economic Planning, Data Processing, and Statistics

Periodicity: Monthly

Index reference period: December 2010 = 100

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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: CPI measures the price changes of a representative “basket” of goods and services consumed by the general population between two periods.

Classification: COICOP (Classification of individual consumption by purpose) with 12 divisions

Sources of weights: Italian FOI

Frequency of weight updates: Annual

D: Sample design

Sampling methods:

Outlets: Judgmental sampling

Products: Judgmental sampling

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 139, Price observations: 1,505
**Frequency with which prices are collected:** Data is collected on a monthly basis.

**Reference period for data collection:** Price collection is done during the last week of each month for all of the items in the basket.

**Methods of Price Collection**

- Personal data collection for all items in the basket.

**Treatment of:**

**Missing or faulty prices:** For stock shortage, the last observed price of the product is carried forward assuming a zero price change. For business suspension of the outlet, prices are imputed with those of the other outlets selling similar goods.

**Disappearance of a given type or quality from the market:** When stock shortage becomes permanent, the replacement process follows, based on these rules: i) Replacement item is the same kind of goods and services substituted. ii) Brand popularity is similar or more popular than the substituted item. iii) It has similar quality and characteristics as the substituted item.

**Quality differences:** Adjustment for quality differences is judgemental.

**Appearance of new items:** New products are introduced in the CPI annually when the index is updated.

**Treatment of seasonal items and seasonality**

**Treatment of housing**

**F: Computation**

**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index) (Direct form)

**Formula to aggregate elementary indices to higher-level indices:** The aggregation formula is the Laspeyres formula.

**Seasonally adjusted indices:** Seasonally adjusted index is not calculated.

**Software used for calculating the CPI:** The CPI data are registered, stored, and compiled by a CPI program developed in-house using spread sheet and database applications.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** After data entry the prices are subject to data validation to detect inconsistent prices and outliers for further confirmation. Accuracy of the data is routinely assessed. Verification is carried out by comparing current price and the price observed in the previous month.
Control procedures used to ensure the quality of data processed: Unusual index movements arising from potential problems in price data are investigated.

**H: Documentation and dissemination**

Timeliness of dissemination of the CPI data: The CPI is disseminated one month after the reference month.

Level of detailed CPI published

**Paper publication**: All items CPI, Division-level (12 Divisions)

**Online**: All items CPI, Division-level (12 Divisions)

**Documentation**

Publications and websites where indices can be found: New release: Data are provided to the media on a monthly basis through a press release, the data is published quarterly in the statistical bulletin “Bollettino Ufficiale” that is also available in Italian at the office’s website: www.upeceds.sm

**I: Other Information**

Completed by ILO in 2013.

**Sao Tome et Principe**

**A: Identification**

**Title of the CPI**: Indice des prix à la consommation de Sao Tome et Principe

**Organisation responsible**: Département des Statistiques Economiques et Financieres

**Periodicity**: Mensuelle

**Price reference period**: 1996 = 100

**Index reference period**: 1996 = 100

**Weights reference period**: 1995 Enquête Budget consommation.

**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:* Le district de Agua Grande, le capital du Pays.

*Price collection:* Le district de Agua Grande, le capital du Pays.

*Population coverage:* Resident households of nationals.

**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;
- Purchase of owner-occupied housing;
- Housing maintenance, minor repairs;
- 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);
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- Occupational expenditures

**Consumption expenditure excludes:**

- Mortgage repayments;
- Mortgage interest;
- Major repairs, conversions and extensions to owner occupied housing;
- Second hand goods purchased;
- Life insurance premiums;
- Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
- Gambling expenditure, gross of winnings;
- 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;
- Expenditures abroad

**C: Concepts, definitions, classifications and weights**

*Definition of the CPI and its objectives:* L’Indice de Prix à la consommation (IPC) est un indicateur qui a pour finalité de mesurer l’évolution dans le temps des prix d’un ensemble de
biens et services considérés représentatifs de la structure de consommation des ménages dans
une donnée période de temps et dans un espace géographique déterminé.

**Definition of consumption expenditures:** Dépenses de consommations des ménages

**Classification:** Une adaptation de COICOP regroupé en 10 groupes.

**Weights include value of consumption from own production:** Yes

**Sources of weights:** Household expenditure surveys.

**Frequency of weight updates:** Above 5 years

**Price updating of weight reference period to the index reference period:** No. Nous
utilisons le même coefficient de pondération provenant des resultats d´enquête de
consommation des ménages réalisée en 1995.

**D: Sample design**

**Sampling methods:**

*Localities:* Judgmental sampling

*Outlets:* Judgmental sampling

*Products:* Judgmental sampling

**Frequency of sample updates:**

*Localities:* Ideadly, every five years when conducting HES.

*Outlets:* Ideadly, every five years when conducting HES.

*Products:* Ideadly, every five years when conducting HES.

**If sample updates are irregular indicate when last updates were introduced:** 1995. The
sample is expected to be updated with the results of 2010 survey.

**Criteria used for determining the optimal sample sizes and the coverage of localities,**
*outlets, items and variety samples:* En raison de l’inexistence d’une base de sondage
susceptible d’être utilisée pour tirer un échantillon de points de vente fiable, il a été retenu de
procéder par choix raisonné. Les points de vente de l’HIPC à Sao Tome constituent le noyau
de l’échantillon des points de vente pour cette zone d’enquête. Le district d’Agua Grande a
été découpé en 53 zones de recensement (ZR) lors du recensement de la population de 1991.
Ces zones de recensement ont constitué la base de sondage au premier dégré de l’enquête sur
les dépenses des ménages. Au premier 13 zones de recensement ont été tirées à probabilités
egales. Dans les unites primaires échantillons, tous les ménages ont été dénombrés. Pour les
cas spécifique des ZR, s’étendant sur deux districts, on n’a retenu que les ménages faisant
partie du district d’Agua Grande. Au deuxième dégré, les ménages ont été tirés à probabilités
égales avec le même taux de sondage dans chaque unité primaire échantillon. Un effectif de 260 ménages échantillons a été retenu: il comprend à un effectif moyen de 20 ménages par ZR, échantillon. Les 260 ménages ont été répartis entre les 13 ZR proportionnellement aux nombres de ménages obtenus lors du dénombrement.

**Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office:** Agua Grande: Elle représente la région Centre de Pays. Elle couvre la capitale du pays (Sao Tome). Son choix est naturel compte tenu du fait que c’est dans cette ville que l’on est peu près sûr de trouver la plus grande partie des produits de la liste de la comparaison internationale. Dans ce district, les relevés sont prévus dans les communes de Sao Tome. Il n’y a pas la zone rurale dans ce district. Le résultat de l’examen a permis la sélection 250 produits environ à retenir dans l’enquête ventilés en 200 produits importants et 50 produits moins importants. Les chiffres peuvent changer après les deux premiers mois d’enquête sur le terrain qui vont faire office en même temps d’enquête pilote. En analysant la liste des produits à Sao Tomé e Principe on peut constater que le district de Agua Grande, la capitale de Pays couvre la majorité. Les chiffres peuvent changer après les deux premiers mois d’enquête sur le terrain qui vont faire office en même temps d’enquête pilote. En analysant la liste des produits à Sao Tomé e Principe on peut constater que le district de Agua Grande, la capitale de Pays couvre la majorité des positions élémentaires.

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Outlets: 320. Price observations: 1,150

**Frequency with which prices are collected:** Produits alimentaires- hebdomadaire. (Chaussures, réparation de chaussures, vêtements, autres articles de l'habillement et accessoires, nettoyage et réparation d'habillement, matières et services pour entretien et réparation de l'habitation, nettoyage et réparation d'habillement, matières et services pour entretien et réparation de l'habitation. Les tissus de la maison, réfrigérateurs et congélateurs, machines à laver, sécheurs, lave-vaisselles, etc., cuisinières et fours, climatiseurs, appareils de chauffage, ventilateurs, les aspirateurs, les petits appareils de la maison électriques, réparation d'appareils de la maison, verrerie, vaisselle et ustensiles de la maison, outils et accessoires divers, les autres produits médicaux, combustibles et lubrifiants pour transport personnel, transport, les services postaux, téléphone et matériel du téléfax, matériel audiovisuel, photographique et de l’information, CD, cassettes, DVD)— Mensuelle

(Mobilier et ameublements, moquettes et autres tapis, réparation de mobilier, ameublements, charbon, bois à brûler, machines à coudre, tricoter des machines, adoucisseurs d'eau, etc., les services domestiques, les services de la maison, les voitures-les moto-cycles, les bicyclettes, les services du téléphone fixe- mobiles, la réparation matérielle d'audio-visuel, services photographique) – Trimestrielle

(L’eau, l’électricité) – Semestrielle

(Le loyer, frais scolaire)- Annuelle
**Reference period for data collection:** Pour tous les groupes on effectue les relevés pendant un mois. Pour les produits alimentaires pendant 4 semaines et les autres produits une fois, deux fois conformément à la périodicité des produits.

**Methods of Price Collection**

- Personal data collection for: alimentaires, vêtements et chaussures, habitation, meubles, santé, éducation, restauration, autres biens

- Official tariffs for: prix de téléphone et communication.

- Achats des produits dans les deux grands marchés pour les produits alimentaires (fruits, légumes, poissons et autres)

**Treatment of:**

**Discounts and sales prices:** Rarement nous avons de solde.

**Black market prices:** Not collected.

**Second hand purchases:** Not included.

**Missing or faulty prices:** un produit est considéré comme manquant dans un point de vente donné, dans les deux cas suivants: il y a abandon définitif de la vente du produit, il y a une rupture temporaire du stock du produit

Period for allowing imputed missing prices: 3 mois, le produit remplaçant doit être: un produit équivalent dans le même point de vente, le prix de base de nouveau produit est considéré comme égal au prix de base de l'ancien produit

**Disappearance of a given type or quality from the market:** L’enquêteur signale la disparition du produit au responsable du service, le responsable du service décide du choix de la méthode de traitement la plus adaptée au cas à traiter

**Quality differences:** le produit remplaçant doit être un produit équivalent dans le même point de vente, à défaut le même produit ou un équivalent dans un autre point de vente du même type, à défaut un produit différent dans une point de vente, le produit peut être remplacé par un produit suffisamment proche, le prix de base du nouveau produit est considéré comme égal au prix de base de l'ancien produit dans le cas d’un produit hétérogène.

**Appearance of new items:** Le prix de base du nouveau produit à la période de base, est considéré comme égal au prix moyen de base des produits de la classe à laquelle appartient le nouveau produit prix du nouveau produit à la période de base= prix réel du produit existant à la période de base*prix du nouveau produit/dernier prix du produit existant

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** La saisonnalité est liée en grande partie à des produits frais d'origine agricole et la pêche tout au long de l'année qui ne
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 variable weights approach: the weights vary over the year.

Method to impute the price of seasonal items: The method used to impute price development in out-of-season periods is carrying forward the last observed price.

Treatment of housing

F: Computation

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

Formula to aggregate elementary indices to higher-level indices:

\[ I_{\text{elementaire}} = \frac{\text{Prix courant}}{\text{Prix année base}} \times 100 \]

Formula of aggregating regional/population group indices into national index:

\[ I_{\text{agreg}} = \frac{\text{indelement1} \times \text{pond1} + \text{indelement2} \times \text{pond2} + \text{indelement3} \times \text{pond3} \ldots}{\text{somme des pondérations}} \]

Monthly and annual average prices: Prix moyens mensuels = moyen arithmétique des tous les groupes et sous groupes, prix moyens annuels = moyen arithmétique de l’indice calculé pour tous le mois.

Seasonally adjusted indices: No

Software used for calculating the CPI: Microsoft Excel

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: contrôle des enquêteurs, traitements à chaque unité ou individu et les réponses évaluées, contrôle des questionnaires, tests au niveau d’intelligence de performance,

Control procedures used to ensure the quality of data processed: modalités des extractions des données, influent sur la validité et l’exactitude des données, influent également sur la quantité fiabilité des données, détermination les types de méthodes statistiques idoines pour l’analyse des données
H: Documentation and dissemination

Level of detailed CPI published

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

Separate indices published for specific population groups: No

Type of products for which average prices are calculated and disseminated: Produits de production locale (poissons, fruits et légumes), prix des carburants

Documentation

Publications and websites where indices can be found: Feuille d’information rapide (trimestrielle), Note de presse (mensuelle), Résultat de l’HIPC (mensuelle) - notre site- www.ine.st

Publications and websites where methodological information can be found: Nous publions seulement le résultat de IHPC avec la note de presse, actuellement nous avons un problème avec notre site

I: Other Information

Reported by the country in 2012.

Saudi Arabia

A: Identification

Title of the CPI: Cost of Living Index

Organisation responsible: Central Department of Statistics and Information.

Periodicity: Monthly

Index reference period: 1999 = 100


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, macroeconomic modelling and other analytic uses.

B: CPI Coverage
Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The CLI measures price changes for a fixed basket of goods and services over time.

Classification: COICOP (Classification of individual consumption by purpose) at the six-digit level.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

Price updating of weight reference period to the index reference period: No, not needed.

D: Sample design

Sampling methods:

Outlets: Judgmental sampling

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

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Item selection: Items are selected on the basis of their share in household consumption using a threshold of 0.03 percent of the total household consumption.

Outlet selection: A survey was conducted to identify points of sale in the sixteen cities (initial sampling units covered by CLI) from which prices of goods and services were collected. Instructions were given to surveyors to select a representative sample of establishments in terms of size, market coverage, geographical location, etc.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Once item sample has been selected, detailed specifications of individual items is written, in order to price the same type and quality of items in all parts of the Kingdom. The specifications cover the key price factors, which affect the item price, such as type, size, brand, model number, country of origin, etc.

E: Data Collection
Approximate number of localities, outlets and price observations: Outlets: 18,000

Frequency with which prices are collected: Prices for foodstuff items are collected every month. Prices for non-foodstuff items are collected every two months with one-half of the items sample collected in even months, and the other half in odd months.

Methods of Price Collection

- Personal data collection

Treatment of seasonal items and seasonality

Treatment of housing

Treatment of owner-occupied housing: House ownership weight is incorporated with rent weight i.e. house ownership costs are estimated through rent movement.

Types of dwellings covered by the rent data: The type of dwellings covered by the rent data are apartments and villas. As rents do not change frequently, relevant data are collected every six months. In this respect, data for one-sixth of the rent sample are collected each month. The first one-sixth of the sample is priced in January and July, while the second one-sixth is priced in February and August.

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: The aggregation formula is the Laspeyres formula.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Prior to the entry of the survey data the questionnaires are checked manually and verified in the field; the data are also checked for consistency using a validation program.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CLI is disseminated less than 15 days after the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation

Publications and websites where methodological information can be found: Detailed methodology on the CLI has been prepared and may be provided upon request.

I: Other Information

Completed by ILO in 2013.

Sénegal

A: Identification

**Title of the CPI:** Indice Harmonisé des Prix à la Consommation (IHPC)

**Organisation responsible:** Service des Prix/Direction des Statistiques Economiques et de la Comptabilité nationale/Agence Nationale de la Statistique et de la Démographie

**Periodicity:** Monthly

**Price reference period:** 2008

**Index reference period:** 2008

**Weights reference period:** 2008

**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:** Main city (can include surrounding areas)

**Price collection:** Main city (can include surrounding areas)

**Population coverage:** Resident households of nationals.
Population groups excluded: Institutional households.

Consumption expenditure includes:

- Foods produced for own final consumption;
- Other goods produced for own final consumption;
- Food consumed away from home;
- Housing maintenance, minor repairs;
- Second hand goods purchased;
- 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;
- Life insurance premiums;
- Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
- Gambling expenditure, gross of winnings;
- Occupational expenditures

Consumption expenditure excludes:

- 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;
- Interest payments (excluding mortgage interest payments);
- 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;
- Expenditures abroad

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: L’indice des prix a pour objet la mesure des variations des prix au cours du temps des biens et services acquis, utilisés ou payés par la population de référence pour sa consommation.

Definition of consumption expenditures: Le champ théorique de l’indice des prix est constitué des dépenses monétaires de consommation finale des ménages. La dépense monétaire de consommation finale des ménages couvre la dépense de consommation finale effectuée : i) par les ménages résidents, indépendamment de leur nationalité; ii) sur le territoire économique du pays; iii) dans des opérations monétaires; iv) pour l’acquisition des biens et services servant à satisfaire directement les besoins individuels; au cours de la période étudiée.
Classification: Nomenclature de Consommation Ouest Africain (NCOA), dérivée de la COICOP.

Weights include value of consumption from own production: Yes

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years


Weights for different population groups or regions: No

D: Sample design

Sampling methods:

Localities: Judgmental sampling

Outlets: Judgmental sampling, quota sampling (a priori fixing of the number of elements)

Products: Judgmental sampling, quota sampling (a priori fixing of the number of elements)

Frequency of sample updates:

Outlets: à la disparition ou apparition de nouveau point de vente ou produits importants

Products: à la disparition ou apparition de nouveau point de vente ou produits importants

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Le moins de relevés possible dans un point de vente pour ne pas encombrer le vendeur. Le choix est raisonné.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Le critère de disponibilité et d’importance.

E: Data Collection

Frequency with which prices are collected: produits alimentaires-hebdomadaire, Biens durables et services- mensuel, loyer- trimestriel.

Reference period for data collection: Période de référence - un mois entier.

Methods of Price Collection

- Personal data collection

- Official tariffs for: eau, électricité, téléphone, journaux.
Treatment of:

**Discounts and sales prices**: Si applicable à tous les ménages sans conditions

**Black market prices**: Yes, if considered as important.

**Second hand purchases**: Included.

**Missing or faulty prices**: Extrapolation en utilisant la variation de prix d’autres produits.

Period for allowing imputed missing prices: 3 mois.

**Quality differences**: Oui

**Appearance of new items**: Oui

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment**: Fruits, légumes et poissons

**Seasonal food items**: Seasonal food items are included in the CPI using variable weights approach: the weights vary over the year.

**Treatment of housing**

**Treatment of owner-occupied housing**: La fréquence de la collecte pour ces cas de figure est trimestrielle. Les deux mois suivant la collecte, le dernier prix collecté est reporté.

**Types of dwellings covered by the rent data**: Un ménage est visité une fois par trimestre.

**F: Computation**

**Formula used for calculation of elementary indices**: The ratio of arithmetic mean prices (Dutot index) (Direct form) and the ratio of geometric mean prices (Jevons index) (Direct form)

**Formula to aggregate elementary indices to higher-level indices**: Laspeyres formula.

**Software used for calculating the CPI**: CHAPO

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected**: Avant de procéder à la saisie des données, un contrôle visuel est effectué sur les questionnaires.

**Control procedures used to ensure the quality of data processed**: La phase d’apurement permet de faire un deuxième contrôle et les corrections nécessaires sont apportées.

**H: Documentation and dissemination**
Timeliness of dissemination of the CPI data: 10 jours au plus après la fin du mois sous revue.

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, Class-level (100 classes)

Restricted Access: Average prices

Type of products for which average prices are calculated and disseminated: Les produits jugés de grande consummation.

Documentation

Publications and websites where indices can be found: www.ansd.sn


I: Other Information

Reported by the country in 2012.

Seychelles

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: National Statistical Office

Periodicity: Monthly

Index reference period: July 2007=100


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 and computation of purchasing power of households.

B: CPI Coverage
Geographical Coverage

*Weights*: Nation-wide

*Price collection*: Nation-wide

*Population coverage*: Resident households of nationals.

**C: Concepts, definitions, classifications and weights**

**Definition of the CPI and its objectives**: The Consumer price index measures changes in prices of goods and services actually charged to consumers.

**Classification**: COICOP (Classification of individual consumption by purpose) with 13 (12 + Fish) divisions

**Sources of weights**: Household expenditure surveys.

**Frequency of weight updates**: Above 5 years.

**Price updating of weight reference period to the index reference period**: No, not needed.

**D: Sample design**

**E: Data Collection**

**Approximate number of localities, outlets and price observations**: Outlets: 123, Price observations: 35,000

**Frequency with which prices are collected**: Prices are collected monthly. Fish prices are collected daily and fruits and vegetable prices are collected weekly.

**Reference period for data collection**: Prices are collected on or around the 15th of every month, over 5 working days.

**Methods of Price Collection**

- Personal data collection

**Treatment of**:

**Missing or faulty prices**: Missing values are estimated by carrying forward the last reported price, if it is not expected to change. Otherwise, the price is estimated by using the price change of similar items.

Period for allowing imputed missing prices: 3 months.

**Treatment of seasonal items and seasonality**
Items that have a seasonal character and their treatment: Fish is the only seasonal product in the basket.

Treatment of housing

Types of dwellings covered by the rent data: Rent data are collected from a random sample of 174 houses. Every month rent values are collected from one third from the sample selected. By rotation every sampled household is covered every three months.

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: Aggregation formula is the Laspeyres formula.

Seasonally adjusted indices: No adjustment is made for seasonality.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Data collected is checked by the supervisor prior to data capturing and validating. When any major discrepancy in recorded data is identified, the price collectors are subject to tighter control.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI bulletin is published 10 days after the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation

Publications and websites where indices can be found: Statistical Bulletin Consumer Price Index (English), Statistical Abstract (English), Seychelles in Figures (English); Internet website - [http://www.nsb.gov.sc/](http://www.nsb.gov.sc/)

Publications and websites where methodological information can be found: No statement of methodology is published; however the NSB maintains a document on compilation methods that is available on request.

I: Other Information

Completed by ILO in 2013.
Sierra Leone

A: Identification

Title of the CPI: National Consumer Price Index

Organisation responsible: Statistics Sierra Leone

Periodicity: Monthly

Index reference period: 2007=100


Main uses of CPI: Indexation of rents, contracts and/or other payments, Main inflation indicator used for monetary policy, Deflate household expenditures in National Accounts and Computation of purchasing power of households.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index (CPI) measures the changing cost of a fixed basket of goods purchased by consumers. It also measures the rate of Inflation.

Classification: COICOP (Classification of individual consumption by purpose) in 12 functions.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Every 3-5 years

Weights for different population groups or regions: Regional weights are computed.

D: Sample design
Sampling methods:

Outlets: Judgmental sampling

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

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Item selection: The specific products priced are selected based on information obtained from the SLIHS regarding the proportion of expenditure spent on the item nationwide. Other additional factors taken into account are: i) The selected commodity should be readily available on the market; ii) The selected commodity is representative; and iii) The commodity is expected to stay on the market for a long time.

Outlet selection is judgemental.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 18 markets

Frequency with which prices are collected: Data collection is divided into 12 regular surveys based on the 12 functions of COICOP; each survey is organized according to periodicity; regularity of survey is weekly, monthly, quarterly and semi-annually or yearly.

Reference period for data collection: Market days for data collection are Wednesday, Thursday and Friday of every week.

Methods of Price Collection

- Personal data collection

- Official tariffs

Treatment of:

Missing or faulty prices: When a price observation is temporarily unavailable in a given outlet, its price is imputed based upon the price movement of group of products within the same stratum.

Disappearance of a given type or quality from the market: When a product is permanently unavailable a similar product with the same elementary aggregate that most closely meets the specifications of the previous product is selected as a replacement product.

Quality differences: Adjustments are made to correct quality differences. Overlap imputation procedure is used (where information on the price of other products in the same outlet is available). Otherwise class mean imputation is used.

Treatment of seasonal items and seasonality
Treatment of housing

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: Aggregation is by the modified Laspeyres formula.

Formula of aggregating regional/population group indices into national index: The National CPI is determined using the average of the regional CPIs for each function and for all items in the basket.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Detailed manual editing is done before prices are inputted into the computer. Inputted data is also subjected to computer editing. Limits to price increases or decreases which identify exception cases for analyst review are set at 30 per cent. Any price change (up or down) above 30% from the previous month, would require field verification to confirm the actual price as well as the reasons for the change, and only the verified price is included in the estimation of the CPI for that month.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: For the monthly CPI, the press release and the CPI report are out on the 20th of the following month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation

Publications and websites where indices can be found: Consumer Price Index is published in the monthly press release; “Monthly CPI Bulletin”, Statistics Sierra Leone (English), “Monthly Economic Review”, Bank of Sierra Leone (English), CPI data is also included in the “National Accounts” publication, Statistics Sierra Leone (English); Internet website: http://www.statistics.sl/

Publications and websites where methodological information can be found: A brief methodology can be obtained from CPI 2011 full report available at http://www.statistics.sl/cpi_archive.htm

I: Other Information
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 Laspeyres 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.
Slovak republic

A: Identification

**Title of the CPI:** Consumer Price Index

**Organisation responsible:** Statistical Office of the Slovak Republic (SO SR)

**Periodicity:** Monthly

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

**Index reference period:** December year t-1=100, December 2000=100

**Weights reference period:** 2010

**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, resident households of foreigners in the country and temporary visitors.

**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 (Only second hand cars);
- Luxury goods;
- Financial services (including fees for financial advice, brokerage fees)

**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);
• Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
• 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: The CPI is the average measure of change in prices of goods and services bought for the purpose of consumption by the vast majority of households in the Slovak Republic.

Definition of consumption expenditures: Consumption expenditures used for derivation of the weights are defined in terms of “payment” (concerning prices we followed Commission regulation (EC) No 2601/2000 of 17 November 2000 laying down detailed rules for the implementation of Council Regulation (EC) No 2494/95 as regards the timing of entering purchaser prices into the Harmonised Index of Consumer Prices).

Classification: COICOP (Classification of individual consumption by purpose) 12 divisions, 44 groups and 101 subgroups

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys, national accounts, consumer surveys. The weights are also based on national accounts data (at the aggregated level) and household budget survey data (at the more detailed level). Supplementary information from suppliers is used to split the weights for electricity, fuels, gas, passenger transport by railway, passenger transport by road, some telecom services and cigarettes. In some cases also the special surveys are used to split the weights e.g. the survey in pharmacies is used to split the weights for pharmaceutical products purchased without doctor’s prescription.

Frequency of weight updates: Annual

Price updating of weight reference period to the index reference period: The weights are updated each year by taking into account the updated sources for the compilation of weights:
national accounts (t-2), household budget survey (t-2), the information from suppliers and other sources that are yearly updated. The weights are price-updated to December 2011 at the COICOP 4 digit category level; in some cases the estimations for volume updating and other adjustment are used.

Weights for different population groups or regions: Special weights for pensioners, low income households and employees. No regional weights for different regions.

D: Sample design

Sampling methods:

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

Outlets: Judgmental sampling, quota sampling (a priori fixing of the number of elements)

Products: Judgmental sampling, quota sampling (a priori fixing of the number of elements)

Frequency of sample updates:

Outlets: The sample varies rarely only in cases when an outlet closes or when a new one enters the market.

Products: Annual

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Localities: Population in the region is one of the criteria used to choose a locality. Price collection covers 38 regions within the whole Slovakia – within these regions price collection is done in about more than 130 big and/or small towns. A small share of prices is collected in rural areas.

Outlets within 38 price collection regions are selected by the price collectors, usually 3-5 for each EA (it depends on the size of a region), with a greater number in Bratislava and a smaller number for some EAs in smaller regions. The selection is based on the popularity of the outlet. The price collectors collect prices in the outlets where people usually do their shopping.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: In case of loose specifications the price collectors choose the products within the given item specification and within the given specification they choose the products that belong to the most sold products.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities of price collection are selected within 38 price collection regions; within these regions the price collection is done in about more than 130 big and/or small towns. The small share of prices is collected in rural areas. Not all items of consumer basket are collected in every locality, Outlets: 13,400, Price observations: 90,000
**Frequency with which prices are collected:** The prices of all consumer basket items are collected once per month (except of fuels, second hand cars and seasonal items). The prices of fuels are collected weekly. Statistical office of Slovak republic is provided with the prices of second hand cars once per two months. The collection of prices for seasonal prices depends on the season.

**Reference period for data collection:** The price collectors collect prices within the first 20 days of the calendar month. The special timetable for different regions is given for price collection of fruits and vegetables to cover prices in the first, second and third week of price collection period. The prices of fuels are not collected by the internal price collectors but SO SR is provided with these prices of fuels weekly from the external sources on the basis of contract.

**Methods of Price Collection**

- Personal data collection for most of the items.

- Mailed questionnaires for the prices of water, heating energy, second hand cars, fuels, pharmaceutical products prescribed by the doctor.

- Telephone interviews used very rarely.

- Internet for the prices within internet outlets, the prices of communication services and of financial and insurance services

- Official tariffs for prices of electricity, gas, postal services and other administrative prices.

**Treatment of:**

**Discounts and sales prices:** Discounts and sales in prices of individual goods and services are taken into account if such reductions: i) can be attributed to the purchase of an individual good or service; ii) are available to all potential consumers with no special conditions attached (non-discriminatory); iii) are known to the purchaser at the time when they enter into the agreement with the seller to purchase the product concerned; and iv) can be claimed at the time of purchase or within such a time period following the actual purchase that they might be expected to have a significant influence on the quantities purchasers are willing to purchase.

**Black market prices:** Not collected.

**Second hand purchases:** Included for second-hand motor cars only. SO SR is provided with the prices of second hand cars on the basis of contract in two month frequency.

**Missing or faulty prices:** If price collectors cannot collect price of the given product from objective reason (e.g. if outlet is closed for a short time); there are two possibilities for price collectors to estimate (impute) the missing price; (either by carrying forward of the previous observation or software also enables extrapolation of price by using the change of the other prices for the same item). The price collectors have to differentiate the estimated (imputed) prices from real collected prices by use of special codes in software. As regards faulty prices the treatment depends on the situation, if e.g. the decimal point is (by mistake in typing)
“shifted”, the correction is done. If the price is “faulty” from other reason (e.g. the replacement product does not comply with the characteristics given in the item description); this “faulty” price is not taken into account in the index compilation and every such situation is evaluated individually – one of the solution can be the using of carry-forwarded price from the last month instead of “faulty” prices.

Period for allowing imputed missing prices: The imputed prices are used for a maximum of 2 months. Starting with the 3rd month the price of a replacement product is used.

**Disappearance of a given type or quality from the market:** Once a product disappears permanently, the price of a replacement product is used; the price collector has to mark the use of every replacement product by the special code in the software. The price collector also describes the characteristics of a replacement product – it serves as a basis for evaluation of the possible quality change. In the cases that it is not possible to find a replacement within the given description, the description is changed at the central level and price collectors collect prices according to the new description.


**Appearance of new items:** The proposals for introduction of new items into a consumer basket and/or proposals for the change of the given item descriptions are mainly based on the field information – the information from all price collectors are gathered together in the autumn of the current year, the proposals are then discussed at the common meeting and the prices of the proposed “new” items are collected in the so called extraordinary price collection (it lasts for about two or three months). After evaluation of these extraordinary price collections the description of “new” or “changed” items of consumer basket are finalized and included in the consumer basket starting with January of the new year (December of the previous year is price reference period for all (old and new items and/or for the old items with the new description).

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** SO SR covers seasonal products in the categories of fruits and within clothing and footwear. For these seasonal products, the imputation of prices in out-of-season period is assured by the following way: The imputation of prices in the out-of-season period is derived from “all seasonal estimation” mentioned in Article 2 (Definitions) of CR (EC) No 330/2009. In compliance with regulation requirements: i) in the first month of the out-of-season period, the estimated price is equal to a typical price observed in the previous in-season period (in the 1st month price collectors have to type typical price of “their” seasonal product for the previous season); ii) from the second month out-of-season period, the estimated price is equal to the estimated price for the preceding month, adjusted by the change in observed prices on average over all available products in the same subdivision of COICOP classification (from the second month out-of-season period the imputation of estimated price is assured at the central level – software imputes prices on the basis of the estimated price for the preceding month adjusted according to the price development of other products covered by the given COICOP subclass). The
treatment of all seasonal products is described in details in “Methodological instructions for price collection, verifying and reporting of data on consumer prices” (Available only in Slovak language).

**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**: The method used to impute price development in out-of-season periods is carrying forward the last observed price.

**Treatment of housing**

**Treatment of owner-occupied housing**: The treatment of owner-occupied housing (OOH) is really important – the vast majority of households in Slovakia live in their own flats and/or houses. Major repairs and maintenance are partially covered in CPI. Owner occupied housing is covered by CPI.

**Types of dwellings covered by the rent data**: Rental flats represent the small share of all housing stock in Slovakia (it is estimated about 5%). The owners of most of the newly built rental flats are municipalities and the rental in these flats are regulated. Most of the rental flats covered in the consumer basket refers to this regulated rental. SO SR collects prices for rental flats in breakdown by the number of rooms - 3 categories of rental flats - (1, 2 and 3 rooms). The rental is calculated per 1 m².

**F: Computation**

**Formula used for calculation of elementary indices**: The ratio of arithmetic mean prices (Dutot index) (Direct form)

**Formula to aggregate elementary indices to higher-level indices**: Laspeyres type formula

**Formula of aggregating regional/population group indices into national index**: SO SR does not aggregate regional/population group indices into national index. Index for Slovakia is compiled from the average prices compiled from the individual prices collected within 38 price collection regions of Slovakia.

**Monthly and annual average prices**: The national monthly average prices are compiled using the arithmetic mean of individual prices collected within 38 price collection regions of Slovakia. Annual average prices are compiled using the arithmetic mean of 12 average monthly prices.

**Seasonally adjusted indices**: Within consumer price indices the SO SR compiles seasonally adjusted price indices based on December 2000 for foodstuffs using TRAMO/SEATS.
G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: There are three control levels of collected price data (and of other related information to the collected prices. The first level of control of the prices is done by the price collectors themselves at the level of 38 price collection regions, the second level of control is done at the level of 8 official regions by 8 so-called “co-ordinators” or “price managers” (i.e. persons whose main task is to coordinate the work of price collectors. They themselves also do price collection and so they have practical experience with the work in field). They are persons, who are intermediaries between the level of central compilation of CPI and the level of individual price collectors. The third level of control of the collected data is done at the level of central compilation of CPI. Each level of control refers to various tasks and/or responsibilities.

Control procedures used to ensure the quality of data processed: The control of processed data is done at the level of central compilation of CPI. When data are centrally collected in Trencin, various reports are produced. First, a basic report on the month’s prices: flagging those individual prices differing by more than 20% from the previous corresponding price; of those individual prices differing by more than 20% from the national average; of prices differing from the average by more than one standard error; minimum and maximum prices; and noting the number of months since a price last changed. This is accompanied by a report comprising all comments made by collectors in the month (it is important mainly in the assessment of replaced products – in case of a replacement price collectors are obliged to provide the description of characteristics of the replacement, but price collectors are obliged to write also other important information concerning observed prices – there are special codes for different types of information) and then there is a first calculation of the preliminary indices for EAs and for all COICOP subclasses, classes, groups and divisions. The compilation of indices for EAs and for all COICOP subclasses, classes, groups and divisions are repeated after the correction of “faulty” prices, then after quality adjustment and last after the imputation of seasonal products prices in out-of-season on the basis of the price development of all available items within the same COICOP subclass. The compilation of indices to the other basis (e.g. December 2000=100) follows only when the control (checking process) is finished.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI is usually published about the 12th – 13th calendar date in the month following the month for which it is compiled. The lapsed time between the end of the field operation and the first publication of CPI is about 10 days.

Level of detailed CPI published

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

Restricted Access: Basic items

Separate indices published for specific population groups: Special indices are compiled for employees, pensioners, and households with low money incomes.
Type of products for which average prices are calculated and disseminated: Average prices are calculated for all items of consumer basket. The average prices of selected items of consumer basket are disseminated in the database Slovstat of SO SR.

Documentation


One can have access to the published average prices at: http://1miloas2.statistics.sk:7777/pls/elis/MetaInfo.explorer?cmd=go&s=1003&sso=3&so=16

The average monthly prices of selected items of consumer basket are also included in the monthly publication Consumer price indices in Slovak republic – its electronic version is available at: http://portal.statistics.sk/showdoc.do?docid=21220


CPI methodological information can be found on the following link: http://portal.statistics.sk/showdoc.do?docid=6066.

"Methodological annotation - CPI" deals more with the information concerning the design of the CPI; it is available at: http://portal.statistics.sk/showdoc.do?docid=33822

I: Other Information

Reported by the country in 2012.

Slovenia

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Statistical Office of the Republic of Slovenia

Periodicity: Monthly

Price reference period: 2005

Index reference period: 2005
Weights reference period: Year t-2

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.

Population groups excluded: Institutional households.

Consumption expenditure includes:

- Foods produced for own final consumption;
- Other goods produced for own final consumption;
- 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 (Only second hand cars);
- 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);
- Investment-related expenditures (e.g. purchase of shares/stocks);
- Expenditures abroad

Consumption expenditure excludes:

- 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;
- Luxury goods;
- Interest payments (excluding mortgage interest payments);
- Life insurance premiums;
- Gambling expenditure, gross of winnings;
- Occupational expenditures;
• 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: Consumer prices index measures changes in the level of retail prices of goods and services from the point of view of the expenditure structure, which the resident population intends for final consumption at home and abroad (national concept).

Definition of consumption expenditures: Allocated assets include value of purchased goods and services, irrespective of whether they were paid in cash or bought on credit. Covered is all expenditure of household members, irrespective of whether used for their personal needs or for gifts to other persons.

Classification: COICOP (Classification of individual consumption by purpose), at 4th level

Weights include value of consumption from own production: Yes

Sources of weights: Household expenditure surveys, national accounts, consumer surveys and data on sales from retail trade.

Frequency of weight updates: Annual

Price updating of weight reference period to the index reference period: The weights for calculating the index in a certain year are based on expenditure from household budget surveys as the main data source. These data are supplemented and verified with other statistical and non-statistical sources; e.g. in 2011 weights are based on the average of expenditure from surveys in 2009 recalculated (indexed) to the prices of December 2010, which is also the index base month.

Weights for different population groups or regions: No

D: Sample design

Sampling methods:

Localities: Stratified sampling with PPS sampling in each stratum, judgmental sampling, in all cases combination of sampling methods is used.

Outlets: 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), in all cases combination of sampling methods is used.

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), quota sampling (a priori fixing of the number of elements), in all cases combination of sampling methods is used.
Frequency of sample updates:

Localities: The sample of localities remains the same.

Outlets: Annual

Products: Annual

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: The criteria used for item selection is choosing items with the most important share in total consumption and whose changes of prices best reflect the changes of prices of related products.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Representativity, popularity, selling well.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 4, Outlets: 1,300, Price observations: 16,500

Frequency with which prices are collected: Prices of agricultural products and air plane tickets are collected twice a month, prices of other goods and services are collected once a month.

Reference period for data collection: Agricultural products (observed in the 1st and 3rd week), non-food products (between 1st and 15th of the month), food products (between 16th and 21st of the month), services (between 22nd and 25th of the month), fuels (between 1st and 25th of the month)

Methods of Price Collection

- Personal data collection for most of the items.
- Mailed questionnaires for accommodation services.
- Telephone interviews for services.
- Internet for PC’s, air plane tickets
- Official tariffs for notary fees, expense of identity card, etc.
- Special database for some pharmaceutical products and second-hand motor cars.

Treatment of:

Discounts and sales prices: Included in the index if they are available to all potential customers with no special condition attached.
Black market prices: Not collected.

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

Missing or faulty prices: Missing prices are treated by carrying forward the previous observation.

Period for allowing imputed missing prices: For up to two months / Substitution with the most comparable one in the same outlet if possible.

Disappearance of a given type or quality from the market: Substitution with the similar item using one of the methods of quality adjustment if necessary.

Quality differences: Explicit methods (direct price comparison, option pricing, judgmental QA, package size adjustment), Implicit methods (overlap, bridge overlap), Mixed approaches.

Appearance of new items: Newly significant goods and services are included when the basket of goods and services is updated at the end of each year.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Seasonal products include the following subgroups of goods and services; fresh fruits, fresh vegetables, women's clothing, footwear, household appliances, sports equipment and recreational services (Regulation concerning minimum standards for the treatment of seasonal products in the Harmonized Indices of Consumer Prices, which came into force in January 2011).

Seasonal food items: Seasonal food items are included in the CPI using variable weights approach: the weights vary over the year.

Seasonal Clothing: Seasonal clothing items are included in the CPI using variable weights approach: the weights vary over the year.

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: Actual rents for housing (non-profit and profit rents).

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: Laspeyres index formula expressed as:
Formula of aggregating regional/population group indices into national index: When for a particular month all prices are collected, firstly average prices are computed and then price indices. The average price of each individual product in the locality is calculated with simple arithmetic mean from prices collected in all places of observation in that locality. The average national price of each product is calculated with weighted arithmetic mean from previously calculated average prices in the locality. From average national prices in each current and base month (December of the previous year), individual indices for each individual product are calculated. From individual indices, weighted arithmetic mean aggregate indices, i.e. indices of groups and the total price index are calculated.

Monthly and annual average prices: In each region, for each individual item, prices are collected and a ratio of average prices is calculated. Then ratios for each region are multiplied with weights for these regions and weighted average price for this item (on monthly level) are obtained. Annual average price is the arithmetic mean of monthly prices.

Seasonally adjusted indices: No

Software used for calculating the CPI: Blaise NT4 Windows, Excel 2010, SAS, Oracle.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Each price collector’s work is checked in the field 1 – 2 times per year to ensure that central office guidelines are being followed. If there are doubts about the reliability of one or several prices, these prices are checked once again by contacting price collectors or, if necessary, checked directly in the field.

Control procedures used to ensure the quality of data processed: All collected prices are reviewed by price collectors before being entered into the computer; the second phase of control is incorporated in the computer program for data entry and in the end all data are manually checked by a person in the unit.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI is disseminated 1 week after the reference month.

Level of detailed CPI published

Paper publication: Class-level (100 classes) and Average prices

Online: Class-level (100 classes), Average prices

Restricted Access: All items CPI
Separate indices published for specific population groups: No

Type of products for which average prices are calculated and disseminated: From each subgroup average prices of some products are published.

Documentation


Average prices are available at http://pxweb.stat.si/pxweb/Database/Economy/04_prices/04110_average_retail_prices/04110_average_retail_prices.asp


I: Other Information

Reported by the country in 2012.

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


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 Non-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:

\[ I^b_t = \sum w^b_i I^{0i}_t, \sum w^b_i = 1 \]

where \( I^b_t \) denotes the overall CPI, or any high-level index, from period 0 to \( t \); \( w^b_i \) is the weight attached to each of the elementary price indices; and \( I^{0i}_t \) 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.

South Sudan

A: Identification

Title of the CPI: National Consumer Price Index

Organisation responsible: National Bureau of Statistics

Periodicity: Monthly

Index reference period: June 2011=100

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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index is an index which tracks the price changes of a representative basket of goods and services consumed by households in South Sudan.

Classification: COICOP (Classification of individual consumption by purpose)

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years.

Weights for different population groups or regions: Regional weights are computed.

D: Sample design

E: Data Collection

Frequency with which prices are collected: Prices are collected on a monthly basis.

Methods of Price Collection

- Personal data collection

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

G: Editing and validation procedures
H: Documentation and dissemination

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation

Publications and websites where indices can be found: Monthly bulletin - Consumer Price Index, Internet website - http://ssnbs.org/cpi/

I: Other Information

Completed by ILO in 2013.

Spain

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Instituto Nacional de Estadística (INE)

Periodicity: Monthly

Index reference period: 2011=100

Weights reference period: Year t-1.

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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Population groups excluded: Institutional households.
Consumption expenditure excludes:

- Foods produced for own final consumption;
- Gambling expenditure, gross of winnings;
- Investment-related expenditures (e.g. purchase of shares/stocks);
- 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 Consumer Price Index (CPI) is a statistical measurement of the development in the overall prices of goods and services consumed by the population living in family dwellings in Spain.

**Classification:** COICOP (Classification of Individual Consumption by Purpose)

**Weights include value of consumption from own production:** No

**Sources of weights:** Household expenditure surveys and consumer surveys.

**Frequency of weight updates:** Annual

D: Sample design

**Sampling methods:**

*Localities:* Sampling with probability proportional to size (PPS)

*Outlets:* Judgmental sampling

*Products:* Judgmental sampling

**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:** Items are selected depending on their importance in household expenditures, their price behavior and how representative they are.

Outlets are selected taking into account types of stores, sales volumes, and locations. Outlets must be representative of the type of item whose information is collected.

Sample sizes: Approximately 220,000 price observations are collected and processed per month from more than 33,000 outlets spread over 177 municipalities throughout the country.
Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Collectors record detailed descriptions of the main characteristics of the product according to general specifications. These are used to detect quality changes and to calculate the pure price change.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 177, Outlets: 33,000, Price observations: 220,000

Frequency with which prices are collected: Data collection frequency depends on the nature of the item. Most of them are collected monthly and others quarterly. In cases of "unprocessed food" like meat, fish, fruits and vegetables, the outlets are visited three times a month.

Reference period for data collection: The reference period of data collection is from the 1st to 22nd day of the month.

Methods of Price Collection

- Personal data collection for most items.

- Official tariffs for cars, petrol, tobacco and telephone services.

Treatment of:

Discounts and sales prices: Data is collected on discounts due to: i) Seasonal sales (official sales periods regulated by the Retail Trade Planning Law); and ii) Sales of any type (so long as they are not liquidations or clearance sales) and therefore included in the computation of the CPI

Missing or faulty prices: When a price observation is temporarily unavailable in a given month, its price is imputed basing on the price movement of similar products within the same geographic area.

Disappearance of a given type or quality from the market: If the price/product is permanently unavailable then a replacement item is selected.

Quality differences: Several techniques are used to make a quality adjustment when a qualitative difference between the new and the old variety is observed. Hedonic techniques are being applied for some products and developed for others.

Appearance of new items: The list of products is reviewed every year.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Fresh fruits and vegetables prices are collected only for the months in season. They have a different monthly basket and item weights vary from month to month.
Seasonal food items: Seasonal food items are included in the CPI using variable weights approach: the weights vary over the year.

Treatment of housing

Types of dwellings covered by the rent data: The housing rental index is obtained from a sample of dwellings distributed throughout the national territory. The sample is selected and updated from a survey that is carried out periodically within the Economically Active Population Survey (EAPS). The design of the sample is based on a simple random sampling, with the sampling unit being the rented dwelling, for each of the provinces. The size of the sample selected is geographically distributed, bearing in mind, within each province, the number of dwellings available, the expenditure by families on rent, and the average rent of the aforementioned dwellings. The prices of each dwelling are collected once each quarter, obtaining the information from the tenants themselves. To this end, the sample is divided into three sub-samples, one for each month of the quarter.

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: Each elementary index for a month is multiplied by its importance (weight) and aggregated to higher-levels according to the Laspeyres formula.

Formula of aggregating regional/population group indices into national index: The national CPI is calculated by combining the urban and rural indices using as weights the country-wide urban and rural household expenditure multiplied by the total number of urban/rural households as available from population census data.

Seasonally adjusted indices: There is no seasonal adjustment for the CPI.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: All of the prices collected monthly are received, filtered and analyzed. In general, all changes greater than 10% or lower than -10% are reviewed, for Food items, and those greater than 5% and those negative changes, for the rest of the items. In addition, the processing of the lack of price is also carried out, that is, the price is estimated for those items that were not available at the time of the visit to the establishment.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI data is released within two weeks 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
Online: All items CPI, Division-level (12 Divisions), Group-level app. 40 groups

Documentation


I: Other Information

Completed by ILO in 2013.

Sri Lanka

A: Identification

Title of the CPI: Colombo Consumers’ Price Index (CCPI)

Organisation responsible: Prices and Wages Davison, Department of Census and Statistics (DCS)

Periodicity: Monthly

Price reference period: 2006/2007 = 100

Index reference period: 2006/2007 = 100


Main uses of CPI: Indexation of wages, pensions and/or social security payment, main inflation indicator used for monetary policy and deflate household expenditures in National Accounts.

B: CPI Coverage

Geographical Coverage

Weights: Main city (can include surrounding areas)

Price collection: Main city (can include surrounding areas)
Population coverage: Resident households of nationals.

Population groups excluded: Institutional households.

Consumption expenditure includes:

- Foods produced for own final consumption;
- Other goods produced for own final consumption;
- Food consumed away from home;
- Housing maintenance, minor repairs;
- 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:

- 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;
- Second hand goods purchased;
- Expenditures abroad

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: CCPI compiled monthly by the DCS and released on the last working day of each month as an official measure of inflation in Sri Lanka. The CCPI is used for deflating of current values of aggregates in National Accounts, formulation of policy for the determination and evaluation of wages and salaries and social security benefits economic and social analysis.

Definition of consumption expenditures: Consumption expenditure is defined by the use approach.
**Classification:** COICOP (Classification of individual consumption by purpose) at 4-digit level

**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:** Yes

**Weights for different population groups or regions:** No.

**D: Sample design**

**Sampling methods:**

- **Localities:** Judgmental sampling
- **Outlets:** Judgmental sampling
- **Products:** Judgmental sampling

**Frequency of sample updates:**

- **Localities:** Continuous (on a rotating basis)
- **Outlets:** Continuous (on a rotating basis)
- **Products:** Continuous (on a rotating basis)

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:** Location and outlets selections are based on purposive sampling. 14 price collection centres are selected and quotations taken from three outlets in each collection centres for one item.

**Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office:** Care is taken to identify produce of average quality for such items when doing the price collection.

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Localities: 14, Outlets: 535, Price observations: 10,539

**Frequency with which prices are collected:** Food items – weekly; non-food items (e.g. textiles, personal care, etc.) – twice in a month; furniture, electrical items, etc. – twice in a year; services – quarterly.
Reference period for data collection: Food items – every Tuesday and Wednesday of the week; non-food items (e.g. textiles, personal care, etc.) – Fridays of the first two weeks of the month; furniture, electrical items, etc. – June and December; services – February, May, August and November.

Methods of Price Collection

- Personal data collection for all items.

- Telephone interviews for services.

- Internet for items, whose prices are available (e.g. electrical/electronic household appliances).

- Official tariffs for items, whose prices are administered by the government.

Treatment of:

Discounts and sales prices: Discount prices are taken but sales prices are not taken.

Black market prices: Not collected.

Second hand purchases: Not included.

Missing or faulty prices: Missing prices are treated by carrying forward the previous observation.

Period for allowing imputed missing prices: Food for 4 weeks, Non-food for 2 months

Disappearance of a given type or quality from the market: Substitutes with the same specifications are selected.

Quality differences: No quality adjustment is made.

Appearance of new items: No new items are introduced.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Six food items identified (green gram – local, kiri ala/taro, ground nuts – raw, bread fruit, jak fruit and b’onion-local). DCS does not apply special treatment to these items. When out of season, they are treated as missing prices.

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.

Method to impute the price of seasonal items: The method used to impute price development in out-of-season periods is carrying forward the last observed price.
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: Rent index is based on the index of cost of construction of modern housing prepared by the Institute for Construction, Training and Development (ICTAD). This index is available quarterly and is computed of sub-indices for cement, bricks, other materials and labour cost.

F: Computation

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

Formula to aggregate elementary indices to higher-level indices:

\[ I = \frac{\sum P_{i1} \times W_i}{\sum W_i} \]

where:
- \( I \) = Index
- \( \frac{P_{i1}}{P_{i0}} \) = relative price of item \( i \)
- \( W_i \) = expenditure value of item \( i \) in base period
- \( \sum W_i \) = total Expenditure in base period
- \( P_{i1} \) = price of item \( i \) in the current period
- \( P_{i0} \) = price of item \( i \) in the base period

Formula of aggregating regional/population group indices into national index: There is no aggregation since the CPI covers only Colombo district.

Monthly and annual average prices: Average prices are calculated by simple arithmetic average.

Seasonally adjusted indices: No seasonal adjustment.

Software used for calculating the CPI: Excel Spread Sheet Application

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Quality of collected data is supervised by price statisticians.

Control procedures used to ensure the quality of data processed: Analysis is based on mean, mode, minimum, maximum, CV and percentage changes.

H: Documentation and dissemination
Timeliness of dissemination of the CPI data: CPI data is disseminated 1 week after the end of the reference month.

Level of detailed CPI published

Paper publication: All items CPI

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

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

Separate indices published for specific population groups: No

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

Documentation

Publications and websites where indices can be found: Index and Inflation figures are published on the DCS website: www.statistics.gov.lk at 3 p.m. on the last working day of each month.


I: Other Information

Reported by the country in 2012.

St Helena

A: Identification

Title of the CPI: Retail Price Index

Periodicity: Quarterly

Index reference period: Quarter 2, 2010 = 100


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, macroeconomic modelling and other analytic uses.

B: CPI Coverage
Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The RPI measures changes in prices of a basket of goods relative to a base point in time.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

D: Sample design

E: Data Collection

Frequency with which prices are collected: Prices are collected quarterly.

Methods of Price Collection

- Personal data collection

Treatment of:

Missing or faulty prices: If a particular item is not available, either the price is carried forward from the previous quarter or a suitable substitution is made. Great care is taken to ensure that this substitution is the closest possible comparison to the original item and that no unfair impact is made on RPI calculations.

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

G: Editing and validation procedures

H: Documentation and dissemination

Level of detailed RPI published

Paper publication: All items RPI, Division-level (12 Divisions)

Online: All items RPI, Division-level (12 Divisions)
Documentation


I: Other Information

Completed by ILO in 2013.

St. Kitts and Nevis

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Eastern Caribbean Central Bank (ECCB)

Periodicity: Quarterly

Index reference period: January 2010 = 100

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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index (CPI) is a measure of the average change over time in the prices paid by consumers for a constant market basket of consumer goods and services.

Classification: COICOP (Classification of individual consumption by purpose)

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years
D: Sample design

E: Data Collection

Approximate number of localities, outlets and price observations: Price observations: 1,500

Frequency with which prices are collected: Price collection is done monthly.

Methods of Price Collection

- Personal data collection

Treatment of:

Disappearance of a given type or quality from the market: If the selected item is no longer available, the officer substitutes it with a similar item.

Quality differences: If there has been a change in the quality or quantity of the good or service since the last time prices were collected, the officer records the quality change in the item.

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: The Laspeyres base weighted formula is used to aggregate elementary indices into higher-level indices.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Once the prices have been collected, they are checked for accuracy and consistency and the necessary corrections or adjustments are made.

H: Documentation and dissemination

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Publications and websites where methodological information can be found: There is no publicly available source of methodology.

I: Other Information

Completed by ILO in 2013.

St. Lucia

A: Identification

Title of the CPI: Consumer Price Index


Periodicity: Monthly

Index reference period: January 2008 = 100


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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Consumption expenditure includes:

- Expenditures abroad
Consumption expenditure excludes:

- Foods produced for own final consumption;
- Other goods produced for own final consumption;
- Services produced for own final consumption;
- In-kind goods received as gifts;
- In-kind services received as gifts;
- Mortgage repayments;
- Mortgage interest;
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- Life insurance premiums;
- Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
- Gambling expenditure, gross of winnings;
- Investment-related expenditures (e.g. purchase of shares/stocks)

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The consumer price index (CPI) is a weighted average of the percentage price changes for a specified set or “basket” of consumer goods and services between two time periods.

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: Above 5 years

Price updating of weight reference period to the index reference period: The weights are priced updated for example weights for January 2008 = 100 were obtained by multiplying the original weights for the period September 2005 to March 2006 by the elementary indices measuring the price changes between period September 2005 to March 2006 and January 2008.

Weights for different population groups or regions: Area weights are calculated and are based on an approximate measure of the share of expenditure by residents in the total expenditure of St Lucia.

D: Sample design

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Items selected for pricing, are first recorded on specification sheets within the CPI System software. The field officer having selected the item variety, then assigns and records on the specification sheet a description of those characteristics of the variety chosen which: i) allows for easy identification of the variety in the future; ii) enables the substitution of a comparable variety if the variety chosen is no longer available at the
retail outlet; and iii) would cause the variety chosen to command a different price from another variety.

E: Data Collection

**Frequency with which prices are collected:** Prices are collected monthly. Prices of miscellaneous goods and services are collected quarterly.

**Reference period for data collection:** Price collection commences in the second day of each month.

**Methods of Price Collection**

- Personal data collection

- Administrative offices for water and sewerage rates, water purchased, electricity, propane gas and kerosene, education services, transport services, health services, communication services and hotels services.

**Treatment of:**

**Black market prices:** Black market prices are not included in the price collection.

**Missing or faulty prices:** Implicit imputations are made for the prices of item varieties, which are temporarily unavailable at a given retail outlet during the current period of price collection due to seasonality. These explicit imputations are made for each period that the variety is missing.

**Disappearance of a given type or quality from the market:** The item variety permanently missing from the market is replaced by a similar variety.

**Quality differences:** Quality differences are treated with either implicit/imputed quality adjustment methods which include: i) direct comparison, ii) overlap iii) linking using over all mean imputation iv) linking using class mean or with explicit methods which include i) direct or explicit adjustment for quality change; and ii) hedonic regression.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** For seasonal varieties or seasonal items, a price or price relative respectively is imputed for each period for which they cannot be recorded.

**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: A rental equivalent approach is used for dwellings occupied by owners (owner occupiers). With this method, the owner - occupier is asked what rent he or she would receive were the premises to be rented. The value of the rent given by the owner-occupier represents the imputed rent for the initial period.

Types of dwellings covered by the rent data: The value of the rents actually paid or the liability which is incurred by renters of the rented dwelling units are collected and recorded annually and used as representative prices for the “rental dwellings” section of the index.

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: The formula used to aggregate the various prices to compute the Index (the aggregation formulae) is referred to as the modified geometric Laspeyres index, a weighted geometric average is taken of the price relatives using the expenditure shares of price reference period as weights. The modified geometric Laspeyres index is defined as:

\[ I_{0-t} = \prod_{i=0}^{n} \left( \frac{p_{t,i}}{p_{t-1,i}} \right) \times \left( \frac{p_{t-1,i}}{p_{0,i}} \right)^{w_{0,i}} \]

This equation is the geometric version of the Young Index since period \( b \neq 0 \), that is, the expenditure shares are different from price reference period \( 0 \). The St. Lucia Consumer Price index is therefore a Geometric Lowe index, which is defined as

\[ I_{LO} = \frac{\sum_{i=1}^{n} p_{t,i}q_{i}}{\sum p_{0,i}q_{i}}. \]

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: Indices are disseminated approximately two weeks 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

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

Publications and websites where indices can be found: New release: Consumer Price Index, notice in the "Government Gazette" (English), "The Consumer Price Index" (English), "The Annual Statistical Digest" (English), "Economic and Social Review" (English); Internet website: www.stats.gov.lc

Publications and websites where methodological information can be found: Methodology for the compilation of the St. Lucia CPI is available at - http://204.188.173.139:9090/stats/index.php/statistics/inflation

I: Other Information

Completed by ILO in 2013.

St. Vincent and the Grenadines

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: The Statistical Office

Periodicity: Monthly

Price reference period: January 2010 = 100

Index reference period: January 2010 = 100

Weights reference period: 2008

Main uses of CPI: Main inflation indicator used for monetary policy.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Consumption expenditure includes:

• Food consumed away from home;
• Purchase of owner-occupied housing;
• Housing maintenance, minor repairs

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;
• 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;
• Second hand goods purchased;
• Luxury goods;
• Financial services (including fees for financial advice, brokerage fees);
• Interest payments (excluding mortgage interest payments);
• Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
• Life insurance premiums;
• Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
• 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: The CPI is a measure of change in average prices of a fixed basket of goods and services purchased by consumers in a specified period.

Definition of consumption expenditures: Consumption is defined in terms of payments.

Classification: COICOP (Classification of individual consumption by purpose) up to 8-digit level

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

Price updating of weight reference period to the index reference period: No
Weights for different population groups or regions: No

D: Sample design

Sampling methods:

Outlets: The most popular

Frequency of sample updates:

Outlets: when necessary

Products: when necessary

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

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 243, Price observations: 3,479

Frequency with which prices are collected: Prices are collected monthly for all groups.

Reference period for data collection: The first Friday of each month.

Methods of Price Collection

- Personal data collection for all most of the items.

- Telephone interviews for rents.

- Internet for airfares, telephones rates, cable fees and tuition fees.

Treatment of:

Missing or faulty prices: A missing price imputation is done using its parent index as a proxy. For higher-levels, the next available index in the same group or item will be used. If there are no price observation for any variety of a product, its price relative will be imputed using average price relatives from the item group of the missing price.

Period for allowing imputed missing prices: Imputation is done for 3 periods.

Disappearance of a given type or quality from the market: A replacement item is selected with similar characteristics.

Treatment of seasonal items and seasonality

Treatment of housing
Types of dwellings covered by the rent data: i) Furnished House: 3 bedrooms, 1 bathroom, 4 bedrooms, 2 bathrooms, 2 bedrooms, 1 bathroom, 3 bedrooms, 2 bathrooms; ii) Unfurnished House: 2 bedrooms, 1 bathroom, 3 bedrooms, 1 bathroom, 3 bedrooms, 2 bathrooms, 4 bedrooms, 1 bathroom, 1 bedroom, 1 bathroom, 4 bedrooms, 2 bathrooms; iii) Furnished Apartments: 2 bedrooms, 1 bathroom, 1 bedroom, 1 bathroom; iv) Semi-furnished Apartment: 2 bedrooms, 1 bathroom, 1 bedroom, 1 bathroom; v) Unfurnished Apartment: 1 bedroom, 1 bathroom, 2 bedroom, 1 bathroom, 3 bedrooms, 1 bathroom, 4 bedrooms, 1 bathroom, 4 bedrooms, 2 bathroom.

The method use is owner equivalent rent and collection is done monthly on a rotation 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:

\[
\text{Item}_{ij}^{t} = \text{Item}_{ij}^{t-1} \times \prod_{i=1}^{N} \left( \frac{p_i^t}{p_i^{t-1}} \right)^{1/N}
\]

Monthly and annual average prices: Geometric means are used.

Seasonally adjusted indices: No

Software used for calculating the CPI: Price Index Processor System (PIPS)

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: After price collectors have collected the data in a given month, this data is reviewed by price statisticians for accuracy and completeness.

Control procedures used to ensure the quality of data processed: After data is entered by price statisticians, several statistical routines are employed to identify data that are potentially outside the bounds of statistical expectations. Outliers are identified using the approach of the Z scores. On the detection of an outlier, an investigation is done to determine if price observation fall within a specified threshold (20%). Unusual price observations are checked for accuracy and consistency.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI data is disseminated 1 month after the end of the reference quarter.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)
Online: All items CPI, Division-level (12 Divisions)

Separate indices published for specific population groups: No

Type of products for which average prices are calculated and disseminated: Average prices are calculated for all products. However, a selected group of products within each division is disseminated.

Documentation


Publications and websites where methodological information can be found: St. Vincent and the Grenadines, Consumer Price Index 2010, Internet website: www.stats.gov.vc

I: Other Information

Reported by the country in 2012.

Suriname

A: Identification

Title of the CPI: Consumenten Prijs Index (Consumer Price Index)

Organisation responsible: General Bureau of Statistics (GBS)

Periodicity: Monthly

Price reference period: April-June 2009 = 100

Index reference period: April-June 2009 = 100

Weights reference period: April - June 2009

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 (1.2%).

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;
- Purchase of owner-occupied housing;
- Mortgage repayments;
- Mortgage interest;
- Housing maintenance, minor repairs;
- Purchase of gifts of goods and services given to others outside the household;
- Second hand goods purchased;
- Luxury goods;
- Interest payments (excluding mortgage interest payments);
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- Life insurance premiums;
- Occupational expenditures;
- Other business-related expenditures

Consumption expenditure excludes:

- Major repairs, conversions and extensions to owner occupied housing;
- Financial services (including fees for financial advice, brokerage fees);
- Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
- Gambling expenditure, gross of winnings;
- Investment-related expenditures (e.g. purchase of shares/stocks);
- 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: CPI is an index that measures the average rate at which prices of consumption goods and services change periodically and is used as an indicator of inflation.
**Definition of consumption expenditures**: Consumption expenditure is a mix of acquisition, use and payment, but acquisitions definition is predominantly used.

**Classification**: COICOP (Classification of individual consumption by purpose). It is modified to some extent at the lower levels according to the national situation.

**Weights include value of consumption from own production**: Yes

**Sources of weights**: Household expenditure surveys.

**Frequency of weight updates**: Above 5 years

**Price updating of weight reference period to the index reference period**: Yes

**Weights for different population groups or regions**: No.

**D: Sample design**

**Sampling methods**:  

*Localities*: Judgmental sampling

*Outlets*: Stratified sampling with PPS sampling in each stratum

*Products*: Stratified sampling with PPS sampling in each stratum

**Frequency of sample updates**:  

*Localities*: At the time of conducting HES.

*Outlets*: At the time of conducting HES.

*Products*: At the time of conducting HES.

**If sample updates are irregular indicate when last updates were introduced**: April–June 2009, after HES (2007/2008)

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples**: Localities: population size and logistics.

Outlets: popularity (market share) and distribution over localities.

Items: at least three (3) per group

**Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office**: Variety: popularity and geographic distribution

**E: Data Collection**
Approximate number of localities, outlets and price observations: Localities: 6 of 10 districts, grouped into 4 domains, Outlets: 415, Price observations: 6,000

Frequency with which prices are collected: Food and non-alcoholic beverages – daily; Alcoholic beverages and tobacco, clothing and footwear, household furnishings, transportation, communication, recreation, culture and education, food away from home – monthly; Housing and utilities – monthly and quarterly; Health care and miscellaneous goods and services – monthly and annually.

Reference period for data collection: The price collection starts every month on the first working day and ends on the last working day of the month. Agriculture and fish prices are collected three times a week in two districts, in three districts twice a week and in one district once a week.

Methods of Price Collection

- Personal data collection

- Telephone interviews for various items (if change detected follow up by personal data collection)

- Official tariffs for water, electricity, telephone and selected medical services.

Treatment of:

Discounts and sales prices: Included, if they are not limited to selected consumers.

Black market prices: If wide spread, included with all other prices.

Second hand purchases: Included.

Missing or faulty prices: Extrapolation by using the change in prices of similar products.

Period for allowing imputed missing prices: Prices are imputed for a maximum of three months, after which expert judgement is used for selecting a close substitution in the same outlet.

Disappearance of a given type or quality from the market: Replacement

Quality differences: Expert judgement used.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Fresh fruits and fish.

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

Types of dwellings covered by the rent data: All available types of dwellings are covered, information is collected quarterly.

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: Laspeyres index formula.

Formula of aggregating regional/population group indices into national index: For the national figure, each main group or subgroup is weighted by the weight per domain.

Monthly and annual average prices: No average prices are calculated.

Software used for calculating the CPI: Dbase IV

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: The data collection sheet used has various instructions and checks for the price collectors.

Control procedures used to ensure the quality of data processed: Price changes beyond certain limits are flagged. Outliers are confirmed with respondents and a record of this is kept. Surveys are audited randomly. Compilation procedures minimize processing errors. Adjustments to records are made only when clearly warranted, normally with one month time lag. Imputation procedures have a sound basis. Mainly using group imputations (occasionally the last price is carried forward). Quality adjustments are made to goods and services defined as heterogeneous.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI is disseminated not later than the 22nd of the month following the reference month; occasionally, if 22nd is not a working day, the next working day after the 22nd.

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

Documentation

Publications and websites where indices can be found: National publication is: Consumentenprijsindexcijfers en Inflatie (Consumer price-index numbers and Inflation) Internet website: www.statistics-suriname.org


I: Other Information

Reported by the country in 2012.

Swaziland

A: Identification

Title of the CPI: National Consumer Price Index

Organisation responsible: Central Statistics Office

Periodicity: Monthly

Index reference period: April 2007=100

Main uses of CPI: Main inflation indicator used for monetary policy, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Urban areas

Population coverage: Resident households of nationals.
Population groups excluded: Institutional households.

C: Concepts, definitions, classifications and weights

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

D: Sample design

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Outlets are selected purposively by including the main departmental stores and supermarkets shops first and thereafter other outlets where products in the basket are available.

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 135

Frequency with which prices are collected: Prices are collected monthly.

Reference period for data collection: Price collection is within the first two weeks of each month.

Methods of Price Collection
- Personal data collection

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The indices are published within fourteen days after the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation

Publications and websites where methodological information can be found: A methodological note is included in the "Consumer Price Index" publication. A more extensive methodological description of the index can be obtained from the CSO.

I: Other Information

Completed by ILO in 2013.

Sweden

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Statistics Sweden

Periodicity: Monthly

Index reference period: 1980 = 100

Weights reference period: 2003 Calendar 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 and computation of purchasing power of households.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals, temporary visitors and institutional households.

Consumption expenditure includes:

- Mortgage repayments;
- Mortgage interest
Consumption expenditure excludes:

- Life insurance premiums

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The CPI shows the average change in prices of goods and services available for private consumption in the economic territory of Sweden.

Classification: COICOP (Classification of individual consumption by purpose) with 12 major groups and 37 subgroups (three-digit level).

Sources of weights: Household expenditure surveys, national accounts, data from the three major wholesalers (detailed data for food).

Frequency of weight updates: Annual

D: Sample design

Sampling methods:

Outlets: Sampling with probability proportional to size (PPS), judgmental sampling

Products: Sampling with probability proportional to size (PPS), judgmental sampling, cut-off sampling (the elements with the highest sales or value of other auxiliary variable are included into the sample), quota sampling (a priori fixing of the number of elements)

Frequency of sample updates:

Outlets: Annual

Products: Continuous (on a rotating basis)

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Outlet selection: There are a variety of methods for outlet selection depending on survey. In the survey for daily necessities (excluding fresh bread, fruit, vegetables and fish) and in the local price survey (fresh food, footwear, furniture household appliances and equipment and miscellaneous goods and services) prices are collected from outlets sampled by Pareto PPS from the Central Business Register. Outlets for collecting petrol prices are also chosen by PPS. For the surveys collected by the central staff judgmental methods are used in most cases for the outlet selection.

Sample sizes: In each outlet, from one up to as much as 500 prices are observed. In all some 25,000 prices in approximately 1000 outlets are observed in local price collection every month. Rent quotations are obtained through a quarterly housing survey of a sample of about 1,000 dwellings. In the surveys collected by the central staff, prices are observed in a few hundred outlets.
Item selection: There are a variety of sampling methods used in the Swedish CPI. The most used methods are purposive sampling and probability sampling. Other methods used are: cut-off sampling, quota sampling and complete coverage.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: For the local price collection the central staff provides general specifications to price collectors (e.g. man's overcoat) and collectors record detailed descriptions such as brand, size, fabric/material, etc. in their forms. For the central price collection the central staff also provides the detailed specifications.

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 1,000, Price observations: 25,000

Frequency with which prices are collected: Prices are collected on a monthly basis.

Reference period for data collection: Prices for alcoholic beverages, transport, fuel, communication, housing, electricity, water and other services related to dwellings, recreation, health and medical care, are collected on the 15th of each month. Prices of other items are collected on an optional day in the week other than the 15th of the month.

Methods of Price Collection

- Personal data collection for 40% of items in the CPI (food, other daily items found in supermarkets, clothing and footwear, furniture, household appliances, restaurants services and other personal goods and services)

- Mailed questionnaires for 60% of items in the CPI (for alcoholic beverages, transport, fuel, communication, housing, electricity, water and other services related to dwellings, recreation, health and medical care).

- Telephone interviews for 60% of items in the CPI (for alcoholic beverages, transport, fuel, communication, housing, electricity, water and other services related to dwellings, recreation, health and medical care).

- Official tariffs

Treatment of:

Discounts and sales prices: Unconditional discount prices are reflected in price collection.

Missing or faulty prices: If a variety is temporarily not available the missing price is neglected or imputed by using the same price change as the other goods/services within the line of business in question and if there are no other goods/services within the same line of business the price change of the good/service in question, within all the lines of business where it occurs. If a variety is not available in the base period (December) and the price collector can find a variety that fits the description in subsequent months a base price is imputed by using the estimated change of other prices for the same item.
Disappearance of a given type or quality from the market: When a variety is no longer available a substitution is made and a quality evaluation is done. The new variety should fulfil the original variety description.

Quality differences: Quality adjustments for item differences when a forced substitution is introduced for a superseded item is made in different ways. For shoes, furniture, household machines, and so on, the price collectors evaluate the value of the differences from their own point of view as being consumers. For clothing a hedonic method is used. For cars a panel of expertise is consulted for the evaluation.

Appearance of new items: During the year the market and market changes for consumer products are followed, experts are consulted and new products are introduced and outdated products are removed.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: When seasonal items are not available a carry forward method is used, i.e. the same price as the last observation is used until the product is available again.

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: The method used to impute price development in out-of-season periods is carrying forward the last observed price.

Treatment of housing

Treatment of owner-occupied housing: For owner-occupied houses the index is a calculation based on the monthly cost development of each of the components of home ownership, namely interest, house insurance, water garbage collection, taxes on real estate, heating oil, electricity, repairs and depreciation.

F: Computation

Formula used for calculation of elementary indices: Ratio of average standardized prices (it is a good approximation to the geometric mean of prices relatives formula) (Chained form)

Formula to aggregate elementary indices to higher-level indices: CPI is chain index aggregated according to Laspeyres-type formula.

Seasonally adjusted indices: Currently no seasonally adjusted data are published.

G: Editing and validation procedures
Control procedures used to ensure the quality of data collected: The validation checks are applied for different items depending on which price survey they are collected in but basically they follow the same pattern. The methods for validation procedures can mainly be divided into two kinds of surveys, namely: For prices collected by price collectors computer programs carry out the following checks: data consistency checks, check of the outlet and items codes when the price observation is missing, check of the outlet and item codes when there is a price, quantity control, check of regular prices, check of the quality adjustment (not for food and other daily necessities), and probability control of the quoted prices. For prices collected by the central staff; each member of the staff responsible for certain price collections, does the validation in the central price system. The checks are done while collecting the prices by phone or by contacting the respondents when the information is collected through written questionnaires. In the central price system the checking is done by immediately discussing the quoted prices when the price changes are extraordinary with the respondents and in some cases new prices are obtained and in other cases the price is accepted. Before the indices from all the systems are accepted the entire price statistics staff meet together and scrutinize all the item indices and the final result to decide whether further checking is necessary. In some cases this final discussion leads to further checking.

Control procedures used to ensure the quality of data processed: The whole CPI production system is scrutinized every year in connection with the weight update. The weights are properly discussed with various experts. Methodological changes are discussed in the committee for the consumer price index during the year and the committee decides whether any changes of principle should be carried out.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI data is disseminated within two weeks after the end of the reference month for all months except January. Due to the weight revisions, the results for January are released after approximately three weeks.

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

Documentation

Publications and websites where indices can be found: The monthly Statistiska Meddelanden (Statistical Reports) publishes indexes for 12 main groups and about 50 subgroups, The annual Statistiska meddelanden (Statistical Reports), available from Publication Services, Statistics Sweden; Internet website: http://www.scb.se for the data published in the press release, in Statistical reports and for access to Sweden's statistical databases.

Publications and websites where methodological information can be found: The annual Statistiska meddelanden (Statistical Reports) series PR 15 contain a methodological description. Documentation on methodology is available on the Statistics Sweden website http://www.scb.se.
I: Other Information

Completed by ILO in 2013.

Switzerland

A: Identification

Title of the CPI: Swiss Consumer Price Index

Organisation responsible: Swiss Federal Statistical Office, Prices

Periodicity: Monthly

Price reference period: December 2011=100

Index reference period: December 2011=100

Weights reference period: December 2011 (weights are updated every 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: 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 interest;
- Housing maintenance, minor repairs;
- Purchase of gifts of goods and services given to others outside the household;
- Second hand goods purchased (second hand cars 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);
• Occupational expenditures;
• Expenditures abroad

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;
• Major repairs, conversions and extensions to owner occupied housing;
• Interest payments (excluding mortgage interest payments);
• Life insurance premiums;
• Gambling expenditure, gross of winnings;
• 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 CPI measures the change in prices of goods and services which are representative of the private and institutional households' consumption in Switzerland. It indicates how much the mean consumers have to increase or to decrease their expenditure to maintain the same volume of consumption, despite the variations in prices.

Definition of consumption expenditures: acquisition concept

Classification: COICOP (Classification of individual consumption by purpose) at 4-digit level

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: Yes

D: Sample design

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Sampling methods:

*Outlets*: Judgmental sampling, cut-off sampling (the elements with the highest sales or value of other auxiliary variable are included into the sample), quota sampling (a priori fixing of the number of elements)

*Products*: Judgmental sampling, cut-off sampling (the elements with the highest sales or value of other auxiliary variable are included into the sample), quota sampling (a priori fixing of the number of elements)

Frequency of sample updates:

*Localities*: Continuously checked and updated if needed

*Outlets*: Continuous (on a rotating basis)

*Products*: Continuous (on a rotating basis)

If sample updates are irregular indicate when last updates were introduced: Localities were updated during the 2005 revision (December 2005).

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Information concerning market share of the location, sales numbers of the item and the general importance for private households is obtained and used when fixing the basket. In the upcoming revision project, Neyman-method will be used.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Data collectors are held to follow given instruction by the office which are normally more or less precise. If not applicable, they should ask the shop owner/present staff for the best-selling product realizing a large turnover or –in the worst case- follow the personal impression of the data collector self.

**E: Data Collection**

Approximate number of localities, outlets and price observations: Localities: 11 regions covered by data collectors (plus data of nationwide important outlets is collected by the central even if located elsewhere (typically online-shops or huge outlet-markets on the countryside with important market share)), Outlets: 3,000 in total, most of them monthly, Price observations: 50,000 per month and 10,000 rents per quarter

Frequency with which prices are collected: Monthly (exceptions are made for long-term fixed prices, like e.g. tariffs, seasonal products etc.) and for rents (quarter)

Reference period for data collection: First two weeks of the month, fuel and gasoline prices are collected twice a month (at the beginning and at mid-month)

Methods of Price Collection

- Personal data collection for all kind of items
- Mailed questionnaires for all kind of items.

- Telephone interviews for all kind of items.

- Scanner data for food and near food (in several outlets), medicines (order data), PC.

- Internet for books, music, film, hi-fi, AV, household goods, sports and cultural events, etc. (all of them are completing traditional data collecting).

- Official tariffs for energy, health care, official documents, public transports, etc.

**Treatment of:**

**Discounts and sales prices:** Taken into account if reduction is applied to sampled goods, to all consumers and discounts for bulk purchases are not exceeding 3 times the standard quantity sold during normal period (“multipacks”).

**Black market prices:** Not collected because unknown.

**Second hand purchases:** Hard to follow because identical products must be found every month. For now, just prices for second hand-cars are followed.

**Missing or faulty prices:** Imputation methods (“bridged overlap”) are applied for clothing and footwear and for some technical products (mobile phones, TV/Hi-Fi/AV, digital cameras, printers and household appliances). For other missing products (expected to be in stock again), price can be maintained for a maximum of 2 months before product replacement is done.

Period for allowing imputed missing prices: Seasonal products (e.g. summer clothing) until next season, others should be replaced after 3 months lacking. Products can be linked directly if quality is similar, if not, quality adjustment must be done or new series launched.

**Quality differences:** Direct substitution, chain method, explicit adjustment and non-substitution methods.

**Appearance of new items:** Collection is started if considered as widely and good sold item and if the basket allows classification.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** Fruits and vegetables, clothing and sports articles.

**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: The method used to impute price development in out-of-season periods is carrying forward the last observed price.

Treatment of housing

Treatment of owner-occupied housing: Rental equivalence approach is used. The corresponding weight relies mainly on interest payments. The price evolution of the rents is imputed.

Types of dwellings covered by the rent data: Dwellings are stratified according to 2 dimensions: 1 to 6 rooms and 4 age classes. The sample is a rotating probability sample taken from a household frame; each quarter, 1/8 if the observations are replaced. The households are asked to indicate the landlord’s address. We collect rent evolution from landlords during 2 years.

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: Aggregation to higher-level indices is by Laspeyres formula given

\[
I' = \sum_{i=1}^{n} g_i^0 f_i^t
\]

Where:

\[
g_i^0 = \frac{q_i^0 p_i^0}{\sum_{j=1}^{n} q_j^0 p_j^0}
\]

\[
I_i^t = \frac{p_i^t}{p_i^0}
\]

\[
q_i^0 = \text{the weighting of } i \text{ during the base period}
\]

\[
f_i^t = \text{the index for the month under review } t
\]

\[
q_i^t = \text{the quantity of commodity } i \text{ surveyed during the base period}
\]

\[
p_i^0 = \text{the price of commodity } i \text{ during the base period}
\]

\[
p_i^t = \text{the price of commodity } i \text{ during the month under review } t
\]

\[
q_i^0 p_i^0 = \text{the expenditure on commodity } i \text{ during the base period}
\]

\[
q_i^t p_i^t = \text{the expenditure on commodity } i \text{ during the month under review } t
\]

Formula of aggregating regional/population group indices into national index: Same as the one above.

Monthly and annual average prices: Unpaired arithmetic mean

Seasonally adjusted indices: No

Software used for calculating the CPI: PRESTA 3, a generic application developed for our purpose

G: Editing and validation procedures
Control procedures used to ensure the quality of data collected: Field tests (done by the polling institute and the SFSO), logical testing of data when collected and imported (plausibility tests on every step, data compared to former period and homogeneity group test), survey handbook and continuous training for data collectors, monthly feedback of controlling

Control procedures used to ensure the quality of data processed: Variation and level of computed index, economical plausibility, monthly review of production processes and results etc.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: Prices are imported around the 20th of every month; plausibility tests and computing are done until around the 25th, publication follows first 10 days of following month, depending on calendar. We count about 10 working days from data import to public release.

Level of detailed CPI published

Paper publication: Division-level (12 Divisions)

Online: Division-level (12 Divisions), Average prices

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

Separate indices published for specific population groups: No.

Type of products for which average prices are calculated and disseminated: Food products, energy, fuels, rents, restaurant prices

Documentation

Publications and websites where indices can be found: SFSO Press release, National Consumer Price Index, Neuchâtel Homepage of the SFSO, Prices:
http://www.bfs.admin.ch/bfs/portal/de/index/themen/05/02.html

Treatment of quality differences is can be found at
(chapter 4.3.6)

Seasonal items and their treatment can be found at:
(Chapter 4.4.2)

Average prices are available at:
http://www.bfs.admin.ch/bfs/portal/de/index/themen/05/02/blank/key/durchschnittspreise.htm
]. Energy prices are published more detailed in (subscriber restricted) online offer.
Publications and websites where methodological information can be found: Some translated information can be found on the SFSO Homepage: http://www.bfs.admin.ch/bfs/portal/en/index/infothek/erhebungen__quellen/blank/blank/lik/01.html

I: Other Information

Reported by the country in 2012.

Syrian Arab Republic

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Central Bureau of Statistics

Periodicity: Monthly

Index reference period: 2005 = 100


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 and macroeconomic modelling and other analytic uses,

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The consumer price index (CPI) measures the price change in a fixed basket of goods and services acquired by households for final consumption purposes.

Classification: COICOP (Classification of individual consumption by purpose) with 12 groups.
Sources of weights: Household expenditure surveys.

Frequency of weight updates: Every 3-5 years

D: Sample design

Sampling methods:

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

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Item selection: Both the representative items and varieties are selected with an emphasis on goods and services that are most frequently purchased by households. Also, preference is given to items that are expected to be continuously available.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 980 urban and rural areas

Frequency with which prices are collected: Prices for certain foodstuffs, such as fruits, vegetables, meat, and eggs, are collected weekly. For other food items and non-food items, prices are collected monthly.

Reference period for data collection: Prices for certain foodstuffs, such as fruits, vegetables, meat, and eggs, are collected on Saturdays and Mondays of each week. Prices for other food items are collected during the 1st - 14th of each month. Prices for non-food items are also collected during the 15th - 23rd of each month.

Methods of Price Collection

- Personal data collection
- Official tariffs

Treatment of:

Missing or faulty prices: Prices for missing items are replaced by the average price of the group.

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation
**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index) (Direct form)

**Formula to aggregate elementary indices to higher-level indices:** The resulting lowest level indices are aggregated to weighted indices for categories and the total using the standard Laspeyres index

**Seasonally adjusted indices:** Seasonally adjusted indices are not computed.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** Verification of price quotes is conducted at the CBS headquarters. In particular, checks are made on changes of prices reported for the previous period and prices for the same item in different markets. Follow-up usually is by telephone. No use is made of automated verification processes. Unannounced inspection visits in local markets are also conducted.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** The CPI is disseminated 1 month after the reference period.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**

**I: Other Information**

Completed by ILO in 2013.

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**Tahiti - Polynésie Française**

**A: Identification**

**Title of the CPI:** Indice des prix à la consommation

**Organisation responsible:** Institut de la Statistique de Polynésie Française (ISPF)

**Periodicity:** Monthly

**Price reference period:** December 2007 = 100
Index reference period: December 2007 = 100

Weights reference period: 2001 l'enquête budget des familles.

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

B: CPI Coverage

Geographical Coverage

Weights: Main cities/metropolitan areas/regions

Price collection: Main cities/metropolitan areas/regions

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

Consumption expenditure includes:

- Food consumed away from home;
- Housing maintenance, minor repairs;
- Major repairs, conversions and extensions to owner occupied housing;
- Purchase of gifts of goods and services given to others outside the household;
- Luxury goods;
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- Life insurance premiums;
- 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;
- Second hand goods purchased;
- Financial services (including fees for financial advice, brokerage fees);
- Interest payments (excluding mortgage interest payments);
- 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 consumption expenditures: Les dépenses de consommation comprennent toutes les dépenses qui relèvent strictement de la consommation de biens et de services courants par les ménages. Elle exclut de ce fait toutes les dépenses d’investissements et les transferts (en argent ou en nature) entre les ménages ainsi que les remboursements d’emprunts.

Classification: COICOP (partie commune de la COICOP jusqu’au niveau de la classe)

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: En l’absence d’une enquête budget des familles récente, nous transformons les effets prix en effet valeur : méthode de chaînage des indices.

Weights for different population groups or regions: Les pondérations sont disponibles pour 2 groupes de ménages. D’une part les pondérations qui permettent de calcul l’indice général, qui est établi sur la base de la consommation moyenne de l’ensemble des ménages vivant en Polynésie française. D’autre part les pondérations qui permettent le calcul de l’indice ouvrier, qui se focalise exclusivement sur les familles pour lesquelles le ”chef” de ménage est ouvrier. Les pondérations dépendent aussi de la zone géographique.

D: Sample design

Sampling methods:

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

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

Frequency of sample updates:

Localities: Continuous (on a rotating basis)

Outlets: Continuous (on a rotating basis)

Products: Continuous (on a rotating basis)

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: A partir de l’enquête budget des familles de 2001

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: A partir de l’enquête budget des familles de 2001

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 500, Price observations: 9,000

Frequency with which prices are collected: Produits alimentaires et boissons non alcoolisées : mensuel, Boissons alcoolisées, tabac : mensuel, Articles d’habillement et articles chaussants : mensuel, Logement, eau, électricité, gaz et autres combustibles : mensuel, Ameublement, équipement ménager et entretien courant de la maison : mensuel, Santé : mensuel, Transports : mensuel, Communications : mensuel, Loisirs et culture : mensuel, Enseignement, Education : mensuel, Hôtellerie, cafés, restauration : mensuel, Autres biens et services : mensuel

Reference period for data collection: Mensuel exception pour les fruits, les légumes, la viande et le poisson : hebdomadaire

Methods of Price Collection

- Personal data collection for : alimentation, habillement, loyers d'habitation, ameublement, santé, transport, communication, loisirs et culture, restauration, autres biens et services

- Telephone interviews for : logement eau électricité, santé, transport, communication, loisirs et culture, autres biens et 9 services, hôtellerie

- Internet for : transport, communication.

- Official tariffs for : combustibles, électricité.

Treatment of:

Black market prices: Not collected.

Second hand purchases: Not included.
**Missing or faulty prices**: Le prix est estimé

Period for allowing imputed missing prices: Durée maximale des ruptures de produit : 3 mois. Le remplacement se fait à qualité la plus proche possible. Un produit haut de gamme sera remplacé par un produit haut de gamme. Un produit de marque sera remplacé par un produit de marque. C’est en premier lieu la qualité qui prime. Une fois les produits potentiels sélectionnés, nous prenons celui dont le prix unitaire (prix / quantité) est le plus proche de celui qui disparaît.

**Disappearance of a given type or quality from the market**: Remplacement

**Quality differences**: No quality adjustment is made.

**Appearance of new items**: Intégration si les nouveaux produits sont suffisamment consommés

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment**: Produits saisonniers: poissons, fruits et légumes. Pas de traitement particulier

**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**: Nous n'avons pas de vêtements saisonniers.

**Treatment of housing**

**Treatment of owner-occupied housing**: Les loyers imputés ne sont pas prix en compte

**Types of dwellings covered by the rent data**: Tout type de logement : appartement, maison, logements sociaux, logement militaire. Fréquence de collecte : mensuelle et trimestrielle

**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**: Pas de formule d'agrégation directe entre niveaux d'indice

**Monthly and annual average prices**: Moyenne géométrique pondérée

**Seasonally adjusted indices**: Pas de CVS

**Software used for calculating the CPI**: Logiciel interne

**G: Editing and validation procedures**
**Control procedures used to ensure the quality of data collected:** Les contrôles sont effectués à partir de notre logiciel interne. Ce logiciel permet de vérifier et de garantir la qualité des données: i) suivi de la progression de la saisie, ii) recodification des différents produits, iii) mise en évidence des écarts de prix ou de quantités constatés par rapport au mois précédent, iv) mise en évidence de la fréquence des ruptures des différents relevés.

**Control procedures used to ensure the quality of data processed:** Notre logiciel interne permet également de: i) vérifier les prix moyens calculés, ii) visualiser les variations par variété et par point de vente, iii) ajuster nos pondérations.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** 3 semaines

**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), Group-level app. 40 groups, Class-level (100 classes)

**Separate indices published for specific population groups:** Tous nos indices apparaissent dans une même publication.

**Type of products for which average prices are calculated and disseminated:** Les prix moyens sont calculés mais ne sont pas publiés

**Documentation**

**Publications and websites where indices can be found:** Publication mensuelle de l’IPC (Point Conjoncture) sur http://www.ispf.pf

**I: Other Information**

Reported by the country in 2012.

**Taiwan**

**A: Identification**

**Title of the CPI:** Consumer Price Index

**Organisation responsible:** National Statistics

**Periodicity:** Monthly
**Index reference period:** 2011=100

**Weights reference period:** 2011 Family Income and Expenditure Survey.

**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 and computation of purchasing power of households.

**B: CPI Coverage**

**Geographical Coverage**

*Weights:* Nation-wide

*Price collection:* Nation-wide

*Population coverage:* Resident households of nationals.

**C: Concepts, definitions, classifications and weights**

**Definition of the CPI and its objectives:** The Consumer Price Index (CPI) is a Laspeyres index (2011=100) covering the whole national territory to measure the price movements of goods and services purchased by households for consumption purpose.

**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, not needed.

**D: Sample design**

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Localities: 17 counties, Price observations: 35,000

**Frequency with which prices are collected:** Prices are collected monthly.

**Methods of Price Collection**

- Personal data collection
- Official tariffs

**Treatment of:**

**Disappearance of a given type or quality from the market:** If the item of a specific brand is out of supply on market, a similar commodity bearing a different brand is priced.
**Appearance of new items**: New quality varieties are introduced in the index by imputing their prices for the base period.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment**: Seasonal products are fresh vegetables and fruits.

**Seasonal food items**: Seasonal food items are included in the CPI using variable weights approach: the weights vary over the year.

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

**Treatment of housing**

**F: Computation**

**Formula used for calculation of elementary indices**: The arithmetic average of the price ratios (Carli index) (Direct form) and the ratio of geometric mean prices (Jevons index) (Direct form)

**Seasonally adjusted indices**: Seasonally adjusted and unadjusted indices are simultaneously provided.

**G: Editing and validation procedures**

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data**: The CPI is disseminated on the fifth day (postpone to the next working day in case of holiday) 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

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

**Documentation**

**Publications and websites where indices can be found**: "Price index" news release – Monthly. The e-book "Price Statistics Monthly"

**Publications and websites where methodological information can be found**: CPI metadata can be found at [http://win.dgbas.gov.tw/dgbas03/bs7/sdds/english/3d/cpi.htm](http://win.dgbas.gov.tw/dgbas03/bs7/sdds/english/3d/cpi.htm)

**I: Other Information**

Completed by ILO in 2013.
Tajikistan

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: State Statistical committee.

Periodicity: Monthly

Index reference period: December previous year = 100

Weights reference period: Annual Household Expenditure Survey (HES).

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

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Consumption expenditure includes:

• Foods produced for own final consumption;
• Other goods produced for own final consumption;
• Services produced for own final consumption

Consumption expenditure excludes:

• Second hand goods purchased;
• Life insurance premiums

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The CPI measures price changes of goods and services consumed by households in major cities and rural areas.

Classification: COICOP (Classification of individual consumption by purpose) with 12 divisions
Weights include value of consumption from own production: Yes

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Annual

Price updating of weight reference period to the index reference period: The weights in the CPI basket are adjusted using sales data from the annual Retail Trade Survey (RTS).

Weights for different population groups or regions: No regional index is compiled.

D: Sample design

Sampling methods:

Outlets: Sampling with probability proportional to size (PPS)

Frequency of sample updates:

Outlets: Annual

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Outlet selection: The outlets are selected through stratified selection of by type, location, and size using information from the retail trade survey.

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 600

Frequency with which prices are collected: Prices are collected on the monthly basis.

Reference period for data collection: For food items the prices are collected during the 20th-25th of the reference month. For other items the prices are collected during the 15th-25th of the reference month.

Methods of Price Collection

- Personal data collection

- Telephone interviews for data on tariffs.

Treatment of:

Black market prices: Black market prices are excluded from the product scope.

Disappearance of a given type or quality from the market: Prices for products that become permanently unavailable during the year are held constant until the beginning of next year when the sample of outlets and specifications is updated.
**Quality differences**: Quality adjustments are rarely made and when made, they are done by simple techniques (usually by using overlap prices method).

**Appearance of new items**: Prices for new types of products that are expected to be included in the index for the following year are collected but are not used in the index. These prices are used for estimating the base-year price for the following year. New products are introduced into the index only during the weight revisions.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment**: For seasonal items (fruits and vegetables) prices are only collected during the season. During off season, either the products are dropped or the last reported price is carried forward until the product reappears in the market and collection resumes.

**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.

**Method to impute the price of seasonal items**: The method used to impute price development in out-of-season periods is carrying forward the last observed price.

**Treatment of housing**

**Treatment of owner-occupied housing**: Imputed rentals of owner-occupied dwellings are excluded from the index scope.

**F: Computation**

**Formula used for calculation of elementary indices**: The ratio of arithmetic mean prices (Dutot index) (Direct form)

**Formula to aggregate elementary indices to higher-level indices**: The modified Laspeyres formula is used to aggregate higher-level indices.

**Formula of aggregating regional/population group indices into national index**: The CPI at the national level is compiled directly from the elementary data transmitted by the four regions and using their population as weights.

**Seasonally adjusted indices**: Seasonal adjustment is made for prices of fruits and vegetables due to their price fluctuations depending on the time of ripening (in green-houses or open air).

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data processed**: Data are validated on a monthly basis; statistical discrepancies are clarified.

**H: Documentation and dissemination**
**Timeliness of dissemination of the CPI data:** The CPI is published by the 12th day of the month following the reference period.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**

**Publications and websites where indices can be found:** Monthly: Socio-Economic Situation of Tajikistan, Statistical Agency under the President of the Republic of Tajikistan, in Tajik and Russian; Other: Statistical Yearbook of Tajikistan, Statistical Agency under the President of the Republic of Tajikistan, in Russian and English, Tajikistan and CIS countries, Statistical Agency under the President of the Republic of Tajikistan, in Russian and English, Prices in Tajikistan, Statistical Agency under the President of the Republic of Tajikistan, in Russian, annual publication; Internet website: http://www.stat.tj/en/

**Publications and websites where methodological information can be found:** Agency’s monthly publication and the website provide brief methodological notes. More details are provided in the special annual publication “Prices in Tajikistan”.

**I: Other Information**

Completed by ILO in 2013.

**Tanzania**

**A: Identification**

**Title of the CPI:** National Consumer Price Index (NCPI)

**Organisation responsible:** National Bureau of Statistics (NBS)

**Periodicity:** Monthly

**Price reference period:** September 2010 = 100

**Index reference period:** December 2011 = 100

**Weights reference period:** 2007, price updated to October, 2009.
Main uses of CPI: Indexation of wages, pensions and/or social security payment, main inflation indicator used for monetary policy, deflate household expenditures in National Accounts and computation of purchasing power of households.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Urban areas

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

Population groups excluded: Institutional households.

Consumption expenditure includes:

• Food consumed away from home;
• Housing maintenance, minor repairs;
• Second hand goods purchased;
• 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;
• Expenditures abroad

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;
• Interest payments (excluding mortgage interest payments);
• Life insurance premiums;
• Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
• 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

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The national consumer price index (NCPI) is a key economic indicator used by government, business, labour, academia, and other organizations to monitor price movements of a fixed basket of goods and services commonly purchased by households over a period of time. The national CPI is compiled based on monetary expenditures relating to consumption for all households both urban and rural with all levels of income. The NCPI mainly provides the headline estimate of inflation for the country.

Definition of consumption expenditures: All household monetary expenditure related to personal household consumption falls within the scope of the NCPI. Both approaches are used (payment and acquisition)

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: Yes

Weights for different population groups or regions: There are three separate indices for Dar-es-salaam city: low, middle and high income earners.

D: Sample design

Sampling methods:

Localities: All urban regional headquarters are covered

Outlets: Judgmental sampling

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:

Outlets: Annual

Products: Annual

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: In the new CPI basket of goods and services, all products with expenditure shares of at least 0.001 are included. Availability of products in
the markets for a reasonable period of time and the possibility of specifying a clear product
description to ensure constant quality over time are also considered. With the exception of
certain essential products such as salt and soap, products with expenditure shares below the
threshold are not selected. However, their expenditure shares are distributed across other
products within the subgroup in which they reside. In this manner the price movements for
these items are represented by the price movement of products included in the new CPI
market basket.

Criteria used for selecting an item variety in the outlet in case of loose specifications
provided by the central office: A close substitute item variety serving the similar class of
population in the similar location is priced after consultation with the central office.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 21, Outlets:
16,863, Price observations: 18,816

Frequency with which prices are collected: All prices collected are the prevailing market
prices including all expenditure groups. For each regional headquarters, four price quotations
are taken from different fixed outlets per item in the first two weeks of a particular month.
Items like water, postage charges and electricity prices are quoted from respective authorities
on quarterly basis. Perishable food items which are sold in heaps and all items which do not
have standard unit of measurements like charcoal and coconuts are generally purchased and
weighed for three consecutive days of the first two weeks of that particular month.

Methods of Price Collection

- Personal data collection for all items.

Treatment of:

Discounts and sales prices: Discounts and sales prices are recorded with the following
exceptions: i) when it is a clearance sale for shop, damaged factory goods and second hand
clothes; and ii) special offers limited to a day or lasting for a limited time e.g. one hour,
opening day offers, to first customers, lucky customers and mystery discounts. Special care
is taken with items which are sold on "discounts/sales", which are not regular stock; such
items may be sold at low prices because they may be of less quality than the regular stock.

Black market prices: Not collected because of difficulties to maintain this type of outlets in
the sample.

Second hand purchases: Due to difficult in maintaining product description, second hand
products are currently excluded.

Missing or faulty prices: Missing prices are imputed using the price movement of similar
items in a group.

Period for allowing imputed missing prices: If a price is missing for three consecutive
months, imputation is done and the fourth month is substituted.
Disappearance of a given type or quality from the market: Splicing technique is used to adjust for quality adjustment during replacement.

Quality differences: Splicing technique is used to adjust for quality adjustment during replacement.

Appearance of new items: Normally new items are introduced during the rebasing of CPI i.e. after every five years.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Imputation is done when items are in season and is normally not more than three months. Seasonal items in CPI are mostly fruits and vegetables

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: Actual payment for rentals (renters) is included and data collection is normally done on a quarterly basis

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: Modified Laspeyres formula.

Formula of aggregating regional/population group indices into national index: Weighted arithmetic mean of indices.

Monthly and annual average prices: Geometric means are used.

Seasonally adjusted indices: No seasonal adjustment.

Software used for calculating the CPI: Microsoft excel-based software
G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Major control procedures used to ensure quality during data collection include supervision at regional level and retraining of enumerators.

Control procedures used to ensure the quality of data processed: A multistage data validation is done before data entry and thereafter computer data validation is also done concentrating on the price comparison with the price movement of similar items in a group in previous months.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI is published on the 15th day after the end of the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions), Basic Items

Online: All items CPI, Division-level (12 Divisions), Basic items

Separate indices published for specific population groups: Dar es Salaam low, middle and high income earners

Documentation

Publications and websites where indices can be found: Internet website: www.nbs.go.tz

Publications and websites where methodological information can be found: National consumer price index (NCPI) for April, 2012 at www.nbs.go.tz

I: Other Information

Reported by the country in 2012.

Thailand

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Bureau of Trade and Economic Indices, Ministry of Commerce

Periodicity: Monthly
Index reference period: 2011 = 100

Weights reference period: 2007 Calendar year.

Main uses of CPI: Indexation of rents, contracts and/or other payments, main inflation indicator used for monetary policy, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Urban areas

Population coverage: Resident households of nationals.

Consumption expenditure includes:

• Food consumed away from home

Consumption expenditure excludes:

• In-kind goods received as gifts;
• In-kind services received as gifts;
• 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: Consumer price index measures the average changes in prices paid by urban consumers for a fixed basket of goods and services.

Classification: COICOP (Classification of individual consumption by purpose)

Sources of weights: Household expenditure surveys and market share information.

Frequency of weight updates: Every 3-5 years

Price updating of weight reference period to the index reference period: Weights are price updated.

Weights for different population groups or regions: Regional weights (i.e. Bangkok and 4 regions) are calculated.

D: Sample design

Sampling methods:
Outlets: Judgmental sampling

Products: Judgmental sampling

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Outlet selection is judgmental depending on sales volumes, location, and cooperativeness of price informant (voluntary).

Items selection is also judgmental depending on weight (relative importance), feasibility of obtaining prices in a timely and regular basis, trend in consumption and popularity among consumers. The item specifications are reviewed every year.

Sample sizes: Approximately 62,026 price quotations are collected each month from 32,523 outlets.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Item specifications (such as brand, weight, size, package, and so on) are defined centrally so that the price collectors can identify the items.

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 32,523, Price observations: 62,026

Frequency with which prices are collected: Most prices are collected monthly; prices of fresh food are collected weekly, gasoline prices are collected daily.

Reference period for data collection: Food items are priced during the first week (Monday to Tuesday). Clothing is priced during the third week (Tuesday to Wednesday). Miscellaneous items (i.e. personal items, housing items, kitchen items, and medicines) are priced during the third week (Tuesday - Thursday) and rentals for housing are collected divided by type of houses every 6 months (during second week from Tuesday to Wednesday).

Methods of Price Collection

- Personal data collection for most retail prices.
- Telephone interviews for prices on utilities and centrally administered prices.
- Official tariffs for utilities and centrally administered prices.

Treatment of:

Discounts and sales prices: Discounts and sales prices are included within the period of collecting prices

Missing or faulty prices: When a price is temporarily unavailable, the previous price is carried forward.
Period for allowing imputed missing prices: Imputation of a missing price is up to 3 months.

**Disappearance of a given type or quality from the market:** Price collectors select products with the same quality and closely approximate specification of the previous variety

**Quality differences:** No special adjustment for quality change is made; direct substitution of comparable item is used when item changes permanently.

**Appearance of new items:** Items' specifications are regularly revised using information from the annual survey of merchants and retailers, market information and collector reports.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** Few seasonal items are included in the CPI basket. Last available price is carried forward for month’s out-of-season.

**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:** The method used to impute price development in out-of-season periods is carrying forward the last observed price.

**Treatment of housing**

**Treatment of owner-occupied housing:** Actual and imputed rents are used as the estimates of both rentals and owner-occupied housing. Both the weights of the rental and owner-occupied housing are used in calculating the CPI. And also both actual rentals and owner-occupied housing are used to calculate the rent index.

**F: Computation**

**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index) (Direct form)

**Formula to aggregate elementary indices to higher-level indices:** Modified Laspeyres methodology in which weighted average of regional weights (Bangkok and 4 regions) are combined.

**Seasonally adjusted indices:** No seasonal adjustment is undertaken.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** Economists at the central office check the price quotations reported by the collectors. Large variation of prices is
identified and the collectors are asked to provide the explanations for unusual movements. The price collectors are supervised annually in the field by the central officials.

**Control procedures used to ensure the quality of data processed:** The data for compiling CPI for each region and each product group are carefully checked. Each CPI staff is responsible for the certain product categories (to be specialized) for the whole country so that it could prevent the inconsistent imputation for missing data.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** CPI data is disseminated not later than one week 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

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

**Documentation**

**Publications and websites where indices can be found:** New release: “Price Indices” is available in both Thai and English, The semi-annual "Price Indices" is available with statistical tables in both Thai and English from the Ministry of Commerce; Internet website: [http://www.bot.or.th/English/Statistics/Standard/SDDS/Pages/Sdds.aspx](http://www.bot.or.th/English/Statistics/Standard/SDDS/Pages/Sdds.aspx) and [http://www.bot.or.th/English/Statistics/EconomicAndFinancial/RealSector/Pages/Index.aspx](http://www.bot.or.th/English/Statistics/EconomicAndFinancial/RealSector/Pages/Index.aspx)

**Publications and websites where methodological information can be found:** An English summary of the methodology is available on request. Explanatory notes are also provided in footnotes in the Ministry of Commerce monthly "Price Indices". In addition, a detailed description of the methodology and sources used to compile the CPI is available on request in Thai only.

**I: Other Information**

Completed by ILO in 2013.

**The Bahamas**

**A: Identification**

**Title of the CPI:** All Items Indices

**Organisation responsible:** The Department of Statistics

**Periodicity:** Monthly
Price reference period: February 2010 = 100

Index reference period: February 2010 = 100


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: Urban areas

Population coverage: Resident households of nationals.

Population groups excluded: Institutional households and high income households.

Consumption expenditure includes:

- Foods produced for own final consumption;
- Food consumed away from home;
- Income in-kind receipts of goods;
- In-kind goods received as gifts;
- Purchase of owner-occupied housing;
- Housing maintenance, minor repairs;
- Major repairs, conversions and extensions to owner occupied housing;
- Luxury goods;
- 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;
- Expenditures abroad

Consumption expenditure excludes:

- Income in-kind receipts of services;
- In-kind services received as gifts;
- Mortgage repayments;
- Mortgage interest;
- Purchase of gifts of goods and services given to others outside the household;
- Financial services (including fees for financial advice, brokerage fees);
- Interest payments (excluding mortgage interest payments);
- Life insurance premiums;
• Investment-related expenditures (e.g. purchase of shares/stocks);
• Second hand goods purchased;
• Occupational expenditures;
• 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: A price index measures the proportionate price changes in a fixed basket that represents purchases of a typical household over a period of time.

Definition of consumption expenditures: Consumption expenditures are the expenses that are incurred during the purchase of goods and services used for consumption purposes. Consumption refers to when these goods and services are purchased “acquisition”.

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 for three largely populated islands are compiled.

D: Sample design

Sampling methods:

Outlets: Simple random, judgmental sampling

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: At the time of conducting the household expenditure survey.

Outlets: Continuous (on a rotating basis)

Products: Continuous (on a rotating basis)
Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Localities/regions- are chosen from the household expenditure survey.

Outlets- are chosen based on their popularity with consumers.

Items- are chosen based on their sales value.

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Localities: 3, Outlets: 503 outlets and 155 rental units.

**Reference period for data collection:** The reference period for data collection is the beginning of the month provided that the month doesn’t begin on a Thursday which marks the beginning of the weekend special.

**Methods of Price Collection**

- Personal data collection for food & beverage, medical, personal care items, restaurants & hotels, rents, clothing & footwear, furnishings, household equipment & routine household maintenance, transport equipment, transport services, recreation & culture, education, miscellaneous goods & services

- Telephone interviews for personal care items, rents, gas, education, restaurants & Hotels.

- Official tariffs for water, electricity and postal Services.

**Treatment of:**

**Discounts and sales prices:** They are not taken.

**Black market prices:** Not collected.

**Second hand purchases:** Not included.

**Missing or faulty prices:** Missing or faulty prices are removed and the last observed price is carried forward for monthly collections and for prices that are collected less frequently these would be imputed.

Period for allowing imputed missing prices: A missing price is carried forward for three months.

**Disappearance of a given type or quality from the market:** When an item disappears from the market it is firstly discussed with store personnel to ensure that it is not returning and if not then it is replaced. A replacement item is chosen based on how closely the specifications of a new item meet those of the previous item.
Appearance of new items: Appearance of new items will replace those that became obsolete.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Fruits & Vegetables, Clothing – swimsuits/jackets,

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: The method used to impute price development in out-of-season periods is carrying forward the last observed price.

Treatment of housing

Treatment of owner-occupied housing: Owner occupied housing is categorized as imputed rent and combined with actual rents.

Types of dwellings covered by the rent data: Rents are collected biannually. Rental parameters include furnished & semi-furnished, one or two bedroom units, with or without electricity.

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: Laspeyres formula.

Monthly and annual average prices: Average prices are calculated as arithmetic averages.

Seasonally adjusted indices: No

Software used for calculating the CPI: Price Index Processor System (PIPS)

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: After the data is collected there is a round of checks that must be completed to ensure consistency in prices and that the same item is being collected as described on the data collection sheet. If there is an outlying price a revisit to the establishment may be necessary.
Control procedures used to ensure the quality of data processed: After prices are confirmed they are entered into the system. Upon completion of data entry the items entered are checked to ensure the correct prices have been entered. In the event of an imputation, the imputed price is also verified to ensure that a reasonable price was imputed.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI data is published by the 15th of the following month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions) and Average prices

Online: All items CPI

Separate indices published for specific population groups: No

Type of products for which average prices are calculated and disseminated: Food products and gas

Documentation

Publications and websites where methodological information can be found: The Department of Statistics’ website: http://statistics.bahamas.gov.bs “All Items Indices April 2012

I: Other Information

Reported by the country in 2012.

The Republic of Moldova

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: The National Bureau of Statistics (NBS), Price Statistics Division

Periodicity: Monthly

Price reference period: December year t-1 = 100

Index reference period: Previous month = 100, Previous December = 100, same month of previous year = 100
**Weights reference period:** 2012 CPI calculations are based on household’s expenditures data from the previous year survey (2011).

**Main uses of CPI:** Indexation of wages, pensions and/or social security payment, main inflation indicator used for monetary policy, deflate household expenditures in national accounts, 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 (0.3%).

**Consumption expenditure includes:**

- Food consumed away from home;
- Housing maintenance, minor repairs;
- Major repairs, conversions and extensions to owner occupied housing;
- Second hand goods purchased;
- Luxury goods;
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- Life insurance premiums;
- 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;
- Purchase of gifts of goods and services given to others outside the household;
- Financial services (including fees for financial advice, brokerage fees);
- Interest payments (excluding mortgage interest payments);
- 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: The CPI has the aim of measuring the changes in the overall level of the prices on products and services purchased for consumption by the country population households.

Definition of consumption expenditures: Consumption expenditures are defined as final monthly expenditures for consumption needs of household (payment).

Classification: COICOP (Classification of individual consumption by purpose) at 2-digit level.

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: The weights are updated annually, so there is no need for weights adjustments to the index reference period.

Weights for different population groups or regions: No

D: Sample design

Sampling methods:

Localities: Sampling with probability proportional to size (PPS)

Outlets: Sampling with probability proportional to size (PPS)

Products: Sampling with probability proportional to size (PPS)

Frequency of sample updates:

Localities: Samples are stable and updated when needed.

Outlets: Samples are stable and updated when needed.

Products: Samples are stable and updated when needed.

If sample updates are irregular indicate when last updates were introduced: January, 2012.
Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: By population and volume of sales.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Nomenclature of goods is unique, constant for the whole republic with the concrete and detailed description of each product. Registrars of the prices register the same type of the product during the whole year (with the same specifications). In order to determine the price of one product the registrars use more varieties of the same product (for instance, the same product, but the different make, the different measure unit, etc.). In order to obtain the price, the arithmetic average of the varieties of the given product method is used.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 8, Outlets: 850, Price observations: 1,200

Frequency with which prices are collected: Food items’ prices are collected – 2 times per month; non–food items – monthly; and services – monthly.

Reference period for data collection: The reference period for data collection is a month.

Methods of Price Collection

- Personal data collection.

- Official tariffs for services.

Treatment of:

Discounts and sales prices: Long term discounts are included in the price collection.

Black market prices: Not collected.

Second hand purchases: Not included.

Missing or faulty prices: Missing prices are imputed by Jevons method (geometric average) from the group where the modified product comes from.

Period for allowing imputed missing prices: 1 – 2 months.

Disappearance of a given type or quality from the market: It is replaced with a new item whose characteristics correspond to the specifications.

Quality differences: No quality adjustment is made.

Appearance of new items: The list of items is stable during the year. At the appearance of a new item the price for the first month is not taken into account and it is used as basis for the next month.
Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: The seasonal items are as follows: fruits, vegetables, clothing, and footwear. These are calculated by Jevons method (geometric average) by price imputation from the group the modified product comes from.

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.

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: Laspeyres formula (the index with a fixed basis).

Formula of aggregating regional/population group indices into national index: No

Monthly and annual average prices: Geometric means are used.

Seasonally adjusted indices: During the seasonal products adjustment, the method of price imputation from the respective groups.

Software used for calculating the CPI: Prets - C.EXE, Excel (software designed by the NBS)

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Manual, by the prices registrars with the help of Palmare - Pocket Pc Asus 525.

Control procedures used to ensure the quality of data processed: With the help of the program “Prets – C”.

H: Documentation and dissemination
Timeliness of dissemination of the CPI data: 10 days after the end of the reference month.

Level of detailed CPI published

Online: Group-level app. 40 groups

Separate indices published for specific population groups: No

Type of products for which average prices are calculated and disseminated: Average prices are not disseminated. Only the CPI, disaggregated by groups, is published.

Documentation

Publications and websites where indices can be found: Internet website: www.statistica.md

Publications and websites where methodological information can be found: Internet website: www.statistica.md

I: Other Information

Reported by the country in 2012.

Timor- Leste

A: Identification

Title of the CPI: Timor-Leste Consumer Price Index

Organisation responsible: The National Statistics Directorate (DGE)

Periodicity: Monthly

Index reference period: December 2012 = 100


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, macroeconomic modelling and other analytic uses.

B: CPI Coverage
Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Population groups excluded: Institutional households

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index (CPI) measures the rate of change over the time in the prices of consumer goods and services, purchased or otherwise acquired by households, which households use directly, or indirectly, to satisfy their own needs and wants.

Definition of consumption expenditures: The CPI is conceptually based on the acquisitions approach.

Classification: COICOP (Classification of individual consumption by purpose) with 10 groups.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Every 3-5 years

D: Sample design

Sampling methods:

Outlets: Judgmental sampling

Products: Judgmental sampling

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Item selection: The criteria for an item to be selected are: i) it is popular; ii) it is a good-seller; and iii) generally available in major markets throughout Timor-Leste.

E: Data Collection

Approximate number of localities, outlets and price observations: Price observations: 800

Frequency with which prices are collected: Prices are collected monthly at regular time intervals.

Methods of Price Collection
- Personal data collection
- Telephone interviews
- Internet

**Treatment of:**

**Second hand purchases:** Not included in national CPI

**Treatment of seasonal items and seasonality**

**Treatment of housing**

**F: Computation**

**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index) (Direct form) and the ratio of geometric mean prices (Jevons index) (Direct form)

**Formula to aggregate elementary indices to higher-level indices:** The aggregation formula is the Laspeyres formula.

**G: Editing and validation procedures**

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** The CPI is consistently published around the middle of month after 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

**Documentation**

**Publications and websites where indices can be found:** Monthly: “Statistical News: Consumers Price Index”; Quarterly: Quarterly bulletin “Key Statistics”; Other: Annual CPI data published at [http://www.dne.mof.gov.tl](http://www.dne.mof.gov.tl)

**Publications and websites where methodological information can be found:** A guide to the Timor-Leste consumer price index is available at [http://www.dne.mof.gov.tl/cpi/index.htm](http://www.dne.mof.gov.tl/cpi/index.htm)

**I: Other Information**

Completed by ILO in 2013.
Togo

A: Identification

Title of the CPI: Indice Harmonisé des Prix à la Consommation (IHPC)


Periodicity: Monthly

Price reference period: 2008

Index reference period: January 2010 = 100

Weights reference period: 2008

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: Main city (can include surrounding areas)

Price collection: Main city (can include surrounding areas)

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

Population groups excluded: Institutional households and high income households.

Consumption expenditure includes:

- Food consumed away from home;
- Housing maintenance, minor repairs;
- Second hand goods purchased;
- 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 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;
- 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: L’IPC est un instrument de mesure de l’évolution au cours du temps du niveau général des prix des biens et services achetés, utilisés ou payés en vue d’être consommés par une population de référence. Il sert à des fins très diverses, dont les deux plus courantes consistent : i) à ajuster les salaires ainsi que les prestations de sécurité sociale ou autres prestations en vue de compenser, partiellement ou entièrement, les variations du coût de la vie ou des prix à la consommation : ii) et à fournir une mesure moyenne de l’inflation des prix pour le secteur des ménages dans son ensemble en tant qu’indicateur macroéconomique.

Definition of consumption expenditures: La dépense de consommation est à comprendre au sens de la comptabilité nationale et porte sur l’acquisition des biens et services. Le champ théorique de l’indice des prix est constitué de dépense monétaire de consommation finale des ménages. La dépense monétaire de consommation finale des ménages couvre la dépense de consommation finale effectuée: i) Par les ménages résidents, indépendamment de la nationalité; ii) Dans les opérations monétaires; iii) Pour des biens et services servant à satisfaire directement les besoins individuels; iv) Au cours de la période étudiée.

Classification: Une adaptation de la nomenclature internationale (COICOP) à la zone UEMOA a été faite sous l’appellation Nomenclature de consommation ouest africaine (NCOA). L’adaptation a principalement concerné l’introduction d’un quatrième niveau, appelé postes de consommation. Dérivée de cette nomenclature NCOA, une nomenclature appelée NCOA-IHPC a été adaptée pour l’IHPC (appelée NCOA-IHPC) et permet de définir
l’ensemble des indices harmonisés des prix à la consommation des ménages (IHPC) qui doivent être calculés par les Instituts nationaux de statistique des États membres de l’UEMOA. Cette nomenclature tient compte des champs de consommation couverts par les indices et comprend : 12 fonctions de consommation; 41 groupes; 78 sous-groupes; 126 postes de consommation.

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

Price updating of weight reference period to the index reference period: No. Les enquêtes sur les dépenses des ménages ont toujours été menées concomitamment avec la collecte des prix de base.

Weights for different population groups or regions: No.

D: Sample design

Sampling methods:

Localities: Judgmental sampling

Outlets: Judgmental sampling

Products: Judgmental sampling

Frequency of sample updates:

Localities: Not regularly

Outlets: Not regularly

Products: Not regularly

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: On utilise l’importance de chaque type de point de vente dans l’ensemble des points de vente pour sélectionner les points de vente échantillon et les dépenses de consommation pour sélectionner les localités, les produits et les variétés.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: On utilise la description structurée des produits.

E: Data Collection
Approximate number of localities, outlets and price observations: Localities: 6, Outlets: 713, Price observations: 7,800

Frequency with which prices are collected: Produits alimentaires et boissons non alcoolisées hebdomadaire, Tabac et stupéfiants mensuelle, Articles d'habillement et chaussures mensuelle, Logement, eau, gaz, électricité et autres combustibles (mensuelle / mais hebdomadaire pour le charbon de bois), Meubles, articles de ménage et entretien courant du foyer mensuelle, Santé mensuelle, Transports mensuelle, Communication mensuelle, Loisirs et culture mensuelle, Enseignement annuelle, Restaurants et Hôtels mensuelle, Biens et services divers mensuelle.

Methods of Price Collection

- Personal data collection for: tous les produits.

Treatment of:

Missing or faulty prices: Moyenne des observations des prix du même produit observé sur des points de vente similaire pour les variétés homogènes.

Period for allowing imputed missing prices: Trois mois au maximum pour l’imputation de prix manquant, pour la sélection des produits de remplacement, on prend des produits ayant les caractéristiques similaires que les produits qui ont disparu.

Disappearance of a given type or quality from the market: On prend un produit similaire

Quality differences: On ajuste les prix de base du nouveau produit.

Appearance of new items: On essaie d’apprécier leur importance avant toute intégration dans le panier.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Fruits, légumes et poissons.

Seasonal food items: Seasonal food items are included in the CPI using variable weights approach: the weights vary over the year.

Seasonal Clothing: Nous n'avons pas de vêtements saisonniers.

Treatment of housing

Treatment of owner-occupied housing: On suit les logements occupés par des locataires, cependant, pour les besoins de l’analyse de la pauvreté, les loyers fictifs sont estimés pour les logements occupés par des non-locataires.

Types of dwellings covered by the rent data: La fréquence de collecte est mensuelle.

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:** Moyenne arithmétique pondérée.

**Software used for calculating the CPI:** CHAPO (Calcul Harmonisé des Prix par Ordinateur) et présentement on migre vers le logiciel PHOENIX-UEMOA.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** i) Contrôle physique des questionnaires, ii) Retour sur le terrain en cas de problème observé au niveau de certains produits, iii) Sortie inopinée sur le terrain pour contrôler le travail des agents de collecte.

**Control procedures used to ensure the quality of data processed:** i) Retour aux questionnaires en cas de problème de saisie; ii) Comité de validation des indices de prix.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** 10 jours au plus après la fin du mois sous revue.

**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

**Type of products for which average prices are calculated and disseminated:** Maïs en grains crus, Mil, Riz importé en vrac, Viande de bœuf fraîche avec os, Chinchard congelé, Chinchard fumé, Huile rouge de palme, Huile végétale locale industrielle, Tomate fraîche locale, Tubercule d’igname de fufu, Gari, Haricot blanc, Haricot rouge, Charbon de bois, Essence super sans plomb, Gasoil, Gaz butane petite bouteille, Gaz butane grande bouteille.

**Documentation**

**Publications and websites where indices can be found:** [www.stat-togo.org](http://www.stat-togo.org)

**Publications and websites where methodological information can be found:** Les pays de l’UEMOA utilisent la même méthodologie pour le calcul des IPC.

**I: Other Information**

Reported by the country in 2012.
Tokelau

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Tokelau National Statistics Office

Periodicity: Quarterly

Index reference period: June 2012 quarter = 100

Weights reference period: 2012

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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Population groups excluded: Institutional households

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The consumer price index (CPI) measures the changing prices of a fixed basket of goods and services purchased by Tokelau households.

Definition of consumption expenditures: The Tokelau CPI is based on a ‘payment’ concept. The payment approach measures price change over time for the net expenditure on goods and services by the household sector overall. The payment approach relates to the period of time when the actual payments for the product are made. This can differ from the period when it is acquired and when it is used.

Classification: COICOP (Classification of individual consumption by purpose) education and rental accommodation, and housing construction not included.

Sources of weights: The source of weights is based on administrative information compiled from several sources across the wider Tokelau Government.
Frequency of weight updates: Every 3-5 years

Price updating of weight reference period to the index reference period: No, not needed.

D: Sample design

E: Data Collection

Frequency with which prices are collected: Prices are collected once each quarter, except for services such as transport, telecommunications, and energy.

Methods of Price Collection

- Personal data collection
- Mailed questionnaires
- Contacting Samoan Bureau of statistics

Treatment of:

Missing or faulty prices: Imputation of missing prices is done by either carrying forward the previous quarter’s price, or by applying the movements of similar categories of items.

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: The index is calculated using the price relative form of the base weighted Laspeyres formula. The Laspeyres index formula is given as

\[ \text{Index} = \frac{\sum (P_{i,t}Q_{i,t})}{\sum (P_{i,0}Q_{i,0})} \times 1000 \]

where

- \( P_{i,t} \) = Price of item \( i \) (\( i = 1, \ldots, m \)) in period \( t \)
- \( P_{i,0} \) = Price of item \( i \) (\( i = 1, \ldots, m \)) in the base period
- \( Q_{i,0} \) = Quantity of item \( i \) purchased in the base period.

The Laspeyres index measures the change in cost of purchasing the same basket of goods and services in the current period as was purchased in the specified base period. The prices are weighted by quantities in the base period. The price relative form of the Laspeyres index is used by TNSO, this is defined as
\[
\text{Index} = \frac{\sum E_{i0} P_{it}}{\sum E_{i0}} \times 1000
\]

where

\[P_{it} = \text{Price of item } i \ (i = 1, \ldots, m) \text{ in period } t\]
\[P_{i0} = \text{Price of item } i \ (i = 1, \ldots, m) \text{ in the base period}\]
\[E_{i0} = \text{Expenditure of item } i \text{ in the base period} = P_{i0} Q_{i0}\]

It produces the same results as the basic Laspeyres formula but means that expenditure data can be used directly in the index formula.

**G: Editing and validation procedures**

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** Quarterly CPI data is published within one month of the quarter’s end.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**

**Publications and websites where indices can be found:** Consumer Price Index - quarterly. Internet website:


**Publications and websites where methodological information can be found:** CPI technical note can be found at


**I: Other Information**

Completed by ILO in 2013.

**Trinidad and Tobago**

**A: Identification**
Title of the CPI: Index of Retail Prices

Organisation responsible: Central Statistical Office

Periodicity: Monthly

Index reference period: January 2003 = 100


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

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Consumption expenditure includes:

- Mortgage interest;
- Major repairs, conversions and extensions to owner occupied housing;
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims

Consumption expenditure excludes:

- Mortgage repayments;
- Life insurance premiums;
- Investment-related expenditures (e.g. purchase of shares/stocks);
- 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 Index of Retail Prices is a weighted average of the proportionate changes in the prices of a specified set or ‘basket’ of consumer goods and services between two periods of time. It should be noted that the Index is not strictly a measure of general inflation, since it excludes non-consumer prices. However, consumer expenditure constitutes a large proportion of total final expenditure and thus the Index can be assumed to measure general inflation.

Classification: COICOP (Classification of individual consumption by purpose)
Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years

D: Sample design

Sampling methods:

Frequency of sample updates:

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Locality selection: Pricing areas are selected basing on three criteria: i) The relative importance of the area, as determined by its relative share of expenditure (based on the Household Budgetary Survey, 1997/1998); ii) Geographic distribution; and iii) Practical considerations concerning field staff resources.

E: Data Collection

Frequency with which prices are collected: Prices are collected for food & non-alcoholic beverages, alcoholic beverages & tobacco, clothing & footwear and health on a monthly basis. Certain items in these categories, together with items in all other sections are collected on a quarterly basis.

Reference period for data collection: Price collection commences on the Wednesday following the second Monday of each month and continues for a period of one week.

Methods of Price Collection

- Personal data collection

- Official tariffs for license fees, charges for electricity, telephone, vehicle insurance etc.

Treatment of:

Discounts and sales prices: Prices may include sales prices.

Missing or faulty prices: Imputation of missing prices is done using the geometric mean of available items.

Treatment of seasonal items and seasonality

Treatment of housing

Treatment of owner-occupied housing: The rental equivalent approach is used for owner occupied housing.

Types of dwellings covered by the rent data: For rent, a sample of rental units is drawn from the Continuous Sample Survey of Population (CSSP) records which list all households
in Trinidad and Tobago. The sample selected spans all income groups and represents both urban and sub urban areas.

**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:** The modified Laspeyres formula is used for aggregating elementary indices into higher-level indices.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** The field supervisor can select any area at random each month to validate the prices collected. The officers who compute the index also call the outlets where prices reported do not look realistic.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** Data is disseminated 12 days following the end of a reference period. In the event of this day being a public holiday or weekend, data is disseminated on the next working day.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**

**Publications and websites where indices can be found:** Monthly: Trinidad and Tobago Gazette, Internet website: [www.cso.gov.tt](http://www.cso.gov.tt).

**Publications and websites where methodological information can be found:** The Methodology of the Index of Retail Prices is available at the Central Statistical Office, and can be accessed on request.

**I: Other Information**

Completed by ILO in 2013.

**Tunisia**

**A: Identification**
Title of the CPI: Consumer Price Index

Organisation responsible: National Statistical Institute

Periodicity: Monthly

Index reference period: 2005 = 100

Weights reference period: 2005 (12 months).

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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Urban areas

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: CPI is the measure of price change in a basket of consumer goods and services (constant quality and quantity).

Classification: COICOP (Classification of individual consumption by purpose)

Sources of weights: Household expenditure surveys, weights for fresh products are obtained from supplies to wholesale markets and statistics from the fisheries board.

Frequency of weight updates: Every 3-5 years

Price updating of weight reference period to the index reference period: No, not needed.

D: Sample design

Sampling methods:

Localities: Judgmental sampling

Outlets: Judgmental sampling

Products: Judgmental sampling
Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Item selection: Products included in the index basket are those with a significant weight in the expenditure structure. Fresh products in the index basket are those most widely sold products in the markets.

Outlets are selected to represent all commercial activities, and are chosen judiciously in each type of neighbourhood (i.e. medina, modern and suburban neighbourhoods).

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 3115

Frequency with which prices are collected: The frequency of price collection is as follows; fresh products are observed daily in the markets, department stores are visited weekly and speciality stores are visited monthly.

Methods of Price Collection

- Personal data collection for most of the items.

Treatment of:

Discounts and sales prices: Discounts are excluded from price collection.

Missing or faulty prices: If a product is temporarily unavailable, the previous price is repeated for the following month.

Period for allowing imputed missing prices: Imputation of a missing price is allowed up to six months

Disappearance of a given type or quality from the market: A product is considered permanently unavailable after six months and it is replaced with a similar item. If the replacement item is dissimilar (different quality and price), adjustments are made to the base price in relationship to the new price and the index level of the product.

Appearance of new items: If a significant new product is introduced before the base of the index is revised, the product’s price is observed with a view to establishing price series for the next revision of the index.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: A special procedure based on moving averages is used for fresh (seasonal) products, in order to eliminate seasonal effects from the index.

Treatment of housing

Treatment of owner-occupied housing: Not included in the CPI.
F: Computation

**Formula to aggregate elementary indices to higher-level indices:** Local indices are calculated using the Laspeyres method, based on monthly prices and indices with the 2005 average as a base.

**Formula of aggregating regional/population group indices into national index:** Regional indices calculated are aggregated by the share of the products in overall consumption to calculate the national consumer price index.

**Monthly and annual average prices:** For homogeneous products, the monthly price average is calculated based on the data obtained at the different outlets and the various rounds of visits.

**Seasonally adjusted indices:** The CPI is seasonally adjusted. Survey based adjustments for seasonal effects are made for fresh fruits, vegetables, and fish, and for clothing (out-of-season products are not observed).

G: Editing and validation procedures

**Control procedures used to ensure the quality of data collected:** Prices are monitored when average prices are calculated by locality and when the prices are input in Tunis. A monitoring and verification report of the prices that are input is then printed before the index is calculated. Finally, a verification of the results of the index is performed at the lowest level of the nomenclature after the index is calculated.

H: Documentation and dissemination

**Timeliness of dissemination of the CPI data:** CPI data is released not later than 15 days after the end of the reference month.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**

**Publications and websites where indices can be found:** New release: Evolution des prix à la consommation, in French, INS publication Bulletin Mensuel de la Statistique, in Arabic and French; Internet: INS website: [http://www.INS.nat.tn](http://www.INS.nat.tn) where the household consumer price index is published.

**Publications and websites where methodological information can be found:** A full description of the methodology and sources used to prepare the index is published in French in Méthodes Statistiques [Statistical Methods], No. 1, available from the INS.

I: Other Information
Turkey

A: Identification

**Title of the CPI:** 2003 = 100 based Consumer Price Index

**Organisation responsible:** Turkish Statistical Institute (TURKSTAT)

**Periodicity:** Monthly

**Price reference period:** December 2011 = 100

**Index reference period:** 2003 = 100

**Weights reference period:** 2011 December

**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, resident households of foreigners in the country, temporary visitors and institutional households in the country.

**Consumption expenditure includes:**

- Food consumed away from home;
- Housing maintenance, minor repairs;
- Major repairs, conversions and extensions to owner occupied housing;
- Purchase of gifts of goods and services given to others outside the household;
- Second hand goods purchased;
- 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 repayments;
- Mortgage interest;
- 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: CPI is an economic indicator that measures the change over time of the prices of consumer goods and services acquired by households. CPI covers the whole household sector, more precisely the goods and services that acquired by households.

Definition of consumption expenditures: The target statistical universe is the 'household final monetary consumption expenditure' (HFMCE) within the economic territories of the country compiling the CPI. 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 account concepts in the European System of Accounts (ESA 1995).

Classification: COICOP (Classification of individual consumption by purpose)

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys and administrative data.

Frequency of weight updates: Annual

Price updating of weight reference period to the index reference period: The weights for calculating the index in a given year are based on the data from the household budget survey. These data are also supplemented and verified using other statistical (tourism survey and
special survey for institutional population) and non-statistical sources. Weights are changed every year. The present weights are based on the HBS 2008-2009-2010 (t-4, t-3, t-2) results and price-updated to December t-1. A review of critical weights is also part of the ongoing annual review of weights. At the first step of weighting structure, commodities produced by households for own consumption, imputed rents from dwellings resided by owners and income in-kind excluded. For the insurance and games of chance net consumption application is used. After this step, the basket of CPI is obtained and then the weighting structure for both Turkey and the 26 regions are constituted. The consumption of tourists and the consumption expenditures of institutional population are then added to 12 main groups. At the final step, these weighting structures are price-updated to December t-1. For the weights to be used in 2012, 2010 weights coming from HBS data are price updated by the ratio of December 2011 over average of 2010 in 5 digit COICOP level.

**Weights for different population groups or regions:** The weights are calculated for both Turkey and the 26 statistical regions.

**D: Sample design**

**Sampling methods:**

*Localities:* Judgmental sampling

*Outlets:* Judgmental sampling

*Products:* Judgmental sampling

**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:** All of the items whose weights are more than 1/1,000 of total consumption expenditure are covered by the CPI. The sample size is determined by using some of statistical techniques (confidence interval analysis, non-parametric tests, etc.). Every year the distribution of population and outlet censuses in the regional level are controlled and both these distribution and statistical techniques are used for the determination of optimal sample sizes.

**Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office:** The decision of which product (reference product-offer) will be observed in a specific outlet is taken by price collectors. Price collectors are instructed to select the most adequate product available in the outlet taking into consideration its specification as well as the instructions for selecting product offers as agreed in joint meetings (head office staff and price collectors) at the beginning of each year. The specifications for the individual good/service are more or less detailed; indicating size, unit,
materials, brand characteristics, in some cases the quality and price levels. How tight or loose
the specification will be depends on the nature of the product. If a product has many
characteristics could which can affect its price, the specification is more exact. There are
detailed specifications in case of cars, technical products, medical, tobacco goods and some
services. For some products such as food and some garments, specifications are looser.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 81 city
centers, 74 districts, Outlets: 27,500, Price observations: 375,000

Frequency with which prices are collected: Data on prices for representative goods and
services are collected twice a month. Fruits, vegetables, some specific items (e.g. cheese,
eggs, etc.) and oil prices are observed 4 times per month. Rents are priced once a month.

Reference period for data collection: Daily averages are used for the products having
administered prices like tobacco, electricity, water etc. Specified dates are used for the prices
of oils, lpg and diesel. Data on prices for the other representative goods and services are
collected twice a month, firstly the week included 10th of the month and secondly the week
included 20th of the month by price collectors.

Methods of Price Collection

- Personal data collection

- Telephone interviews for real renters.

- Internet just for the control of the prices derived from the outlet.

- Official tariffs

Treatment of:

Discounts and sales prices: Seasonal sales, other sales prices and reduced prices (e.g. special
offers, discounts, etc.) are included in the index when they are available to all potential
consumers without special conditions attached.

Black market prices: Not collected.

Second hand purchases: Not included in price collections.

Missing or faulty prices: If a non-seasonal item is missing permanently, the item is replaced
with the most comparable one in the same outlet or its price is extrapolated on the basis of
price changes to the same or similar item in (an) other outlet(s).

Period for allowing imputed missing prices: If a non-seasonal item is missing permanently,
the last price is carried forward only for two periods (maximum 1 month) if the outlet gives
permission that the same brand of that will sell again.
**Disappearance of a given type or quality from the market:** If a non-seasonal item is disappearing permanently, the item is replaced with the most comparable one in the same outlet or its price is extrapolated on the basis of price changes to the same or similar item in (an)other outlet(s).

**Quality differences:** During a year, price adjustments due to quality changes are most frequently made for cars, PCs, major household appliances, clothing, and technical products. The following methods are used: Implicit methods: Direct price comparison: e.g. clothing – as required, Overlap: e.g. clothing, audio-visual goods – as required, Bridge overlap: e.g. PCs – as required, Retropolation (“base-price imputation”): mainly used for all other products – as required, Package size adjustment: e.g. food and medicines, Judgmental quality adjustment: e.g. clothing, cars – as required, Mixed approaches: – as required.

**Appearance of new items:** The process of identifying new goods and services is continuous throughout the year: existing products are reviewed for their continued relevance and research is undertaken to identify new goods and services. The basket of goods and services, including newly significant goods and services, is updated at the end of each year.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** Seasonal characters are used for clothing (e.g. winter coats, swimming trunks), footwear (e.g. boots, skis, tires), fresh fruit and vegetables.

**Seasonal food items:** Seasonal food items are included in the CPI using variable weights approach: the weights vary over the year.

**Seasonal Clothing:** Seasonal clothing items are included in the CPI using variable weights approach: the weights vary over the year.

**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:** The rentals are stratified in to groups according to number of rooms, type of dwelling and the type of heating system.

**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:**
Higher-level indices

\[ I = W \cdot \frac{P_i}{P_0} \]

\( I \): higher-level indices
Formula of aggregating regional/population group indices into national index: All of the calculation procedures are same both for regions and Turkey. The difference is that the price of Turkey is calculated by using weighted average of the regions in the elementary aggregate level.

Monthly and annual average prices: Geometric means are used.

Seasonally adjusted indices: No seasonal adjustment.

Software used for calculating the CPI: Date entrance program is Java based and index calculation program is written in the visual basic form.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Price is automatically calculated by considering quantity, discount as a percentage and rayon price. By comparing the preceding price and current price, if change rate exceeds 20% limit, the system gives a warning. This is the first alert for the price collector.

Control procedures used to ensure the quality of data processed: There are 30 queries in the Java based data entrance program and lots of macros in the excel program. Moreover SAS queries support the price control level.

H: Documentation and dissemination

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Type of products for which average prices are calculated and disseminated: All items (COICOP level 7) are disseminated on the internet.

Documentation

Publications and websites where indices can be found: Internet website:
http://www.turkstat.gov.tr/PreTablo.do?alt_id=17

Publications and websites where methodological information can be found: Internet website: http://www.turkstat.gov.tr/MetaVeri.do?alt_id=17

I: Other Information
Tuvalu

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Central Statistical Division

Periodicity: Quarterly

Index reference period: 2010 = 100


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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Funafuti Island

Price collection: Funafuti Island

Population coverage: Resident households of nationals.

C: Concepts, definitions, classifications and weights

Classification: COICOP (Classification of individual consumption by purpose)

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years.

Price updating of weight reference period to the index reference period: No, not needed.

D: Sample design

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 26
Frequency with which prices are collected: Prices are collected quarterly.

Reference period for data collection: Prices are collected in a two-week period in the middle of a given quarter.

Methods of Price Collection

- Personal data collection
- Official tariffs

Treatment of:

Missing or faulty prices: Missing prices for the reference quarter are substituted by prices collected for the previous quarter.

Treatment of seasonal items and seasonality

Treatment of housing

F: Computation

Formula to aggregate elementary indices to higher-level indices: The CPI computation or aggregation method is the weighted Laspeyres formula.

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI data are disseminated two weeks after the reference quarter.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation

Publications and websites where indices can be found: Biannual Statistical Report, CSD, Internet website: www.spc.int

Publications and websites where methodological information can be found: There is no metadata available.

I: Other Information

Completed by ILO in 2013.
Uganda

A: Identification

**Title of the CPI:** National (Composite) Consumer Price Index

**Organisation responsible:** Uganda Bureau of Statistics

**Periodicity:** Monthly

**Index reference period:** 2005/2006 = 100

**Weights reference period:** 2005/2006 Uganda National Household Survey data.

**Main uses of CPI:** Main inflation indicator used for monetary policy, macroeconomic modelling and other analytic uses.

B: CPI Coverage

**Geographical Coverage**

Weights: Nation-wide

*Price collection:* Urban areas

**Population coverage:** Resident households of nationals.

C: Concepts, definitions, classifications and weights

**Definition of the CPI and its objectives:** Consumer Price Index (CPI) is a measure of the general change in prices. The price change measured is that of a fixed basket of goods and services whose contents were fixed during the 2005/2006 base period.

**Classification:** COICOP (Classification of individual consumption by purpose)

**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, not needed.

D: Sample design

E: Data Collection
Approximate number of localities, outlets and price observations: Localities: 8 urban cities

Frequency with which prices are collected: Price collection is done monthly.

Reference period for data collection: The reference period for data collection is the 15th of each month. Any price change after the reference date is reflected in the index of the following month.

Methods of Price Collection

- Personal data collection
- Official tariffs for electricity, metred water.

Treatment of:

Missing or faulty prices: Imputation procedures are used for missing prices.

Period for allowing imputed missing prices: Imputation of a missing price is allowed up to 3 months.

Treatment of seasonal items and seasonality

Treatment of housing

Treatment of owner-occupied housing: Imputed rent of owner occupied dwellings is excluded since it is more of an investment rather than consumption expenditure.

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: The modified Laspeyres index formula is used to compute higher-level indices.

Formula of aggregating regional/population group indices into national index: The National CPI is computed as a weighted average of the eight baskets i.e. (Kampala High Income, Kampala Low and Middle Income, Jinja, Mbale, Masaka, Mbarara, Gulu and Arua)

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: The Box plot method is used to detect outliers when the collected data has reached the Head office. For any discrepancies arising from the intermediate data, the source of information is approached to confirm the collected prices. In addition, the methodology went through to aggregate that data is also checked.
Control procedures used to ensure the quality of data processed: Whenever an Index comes out and the results seem to be more than expected, the entire methodology of compiling the index is checked to confirm that there is no error in formula computation. There is also a parallel system in place to cater for these kinds of errors.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** The CPI is published on the last working day of each month in line with the advance release calendar.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level (12 Divisions)

**Online:** All items CPI, Division-level (12 Divisions)

**Documentation**

**Publications and websites where indices can be found:** New release of CPI in hard copy, the weekly CPI for the capital city (Kampala) is produced and it is available as a weekly CPI publication in the hard copy, a monthly bulletin is released in hard copy for consumer prices and the prices index, CPI is also available in the statistical abstract that comes out annually; Internet: CPI data is also available at [http://www.ubos.org/index.php?st=pagerelations&id=138&p=related%20pages:Consumer%20price%20Index](http://www.ubos.org/index.php?st=pagerelations&id=138&p=related%20pages:Consumer%20price%20Index)

**Publications and websites where methodological information can be found:** Documentation on concepts, scope, classifications and statistical techniques are available and disseminated on request.

**I: Other Information**

Completed by ILO in 2013.

**Ukraine**

**A: Identification**

**Title of the CPI:** Consumer Price Index

**Organisation responsible:** State Statistics Service of Ukraine

**Periodicity:** Monthly

**Price reference period:** Previous month = 100
**Index reference period:** Previous month = 100, December of the previous year = 100, 2007 = 100

**Weights reference period:** 2010 (starting from CPI computation of June 2012 – 2011).

**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, macroeconomic modelling and other analytic uses.

### B: CPI Coverage

#### Geographical Coverage

*Weights:* Nation-wide

*Price collection:* Urban areas

*Population coverage:* Resident households of nationals.

*Population groups excluded:* Institutional households (1%).

#### 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;
- Financial services (including fees for financial advice, brokerage fees);
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- Expenditures abroad

#### 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;
- Second hand goods purchased;
- Luxury goods;
- Interest payments (excluding mortgage interest payments);
- Life insurance premiums;
• Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
• 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

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: Index of consumer prices characterizes the changes in time of the general level of prices for goods and services that the population buy for non-production consumption. It is an indicator for the change in the value of the fixed set of consumer goods and services during the current year as compared to the base one. CPI is the most important indicator that characterizes inflation level and is used to resolve many issues pertaining to the government policy, analysis and forecast of the price processes in the economy, revision of the size of money income of the population, settlement of legal issues, conversion of indicators of the national accounts system into constant prices.

Definition of consumption expenditures: Acquisition

Classification: COICOP (Classification of individual consumption by purpose) at 5-digit level

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: The replacement of the weight structure is made according to the standard procedure. The every row of the old CPI is tied with the every row of the new CPI using the coefficients of adjustments which reflect the difference in the levels of the new and old indices.

Weights for different population groups or regions: The weights are produced for 27 regions.

D: Sample design

Sampling methods:

Localities: Stratified sampling with PPS sampling in each stratum

Outlets: Sampling with probability proportional to size (PPS)

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:

Outlets: Continuous (on a rotating basis)

Products: Once every five years.

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: The criterion for selection of goods is their share in the general consumer expenditure of households: at least 0.1% for foodstuffs and 0.2% for other goods and services.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: The selection of specific goods (services) is made independently using the following criteria: i) selected goods should represent the consumer market of the urban population; ii) a significant demand of the population for these goods (services); and iii) their regular availability at outlets.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 140, Outlets: 30,000, Price observations: 450,000

Frequency with which prices are collected: The collection of information about prices for all goods and services is made uniformly during a month.

Reference period for data collection: The prices are collected in regional centers. Cities of Kyiv, Simferopol and Sevastopol from the 1st until the 25th day of the month; in other cities from the 1st until the 20th day; for selected goods, the prices are collected throughout the entire month.

Methods of Price Collection

- Personal data collection for foodstuffs, clothes and footwear, materials for keeping and repair of housing, furniture, household appliances, crockery, pharmaceutical products, fuels, phone equipment, audio equipment, cameras, equipment for information processing, games, newspapers, books, restaurant business, goods of personal hygiene.

- Telephone interviews for services of barber's shops, dry-cleaners, cinemas, sanatoria and spa services.

- Internet for services of mobile connection and rail transport.

- Official tariffs for services of mail and phone connection, electric energy, gas, water supplies, drainage system and heating.

Treatment of:
Discounts and sales prices: They are included if: i) they are permanent and prevalent on the market; ii) the product is not damaged; and iii) the discounts are given to all without exception.

Black market prices: Not collected.

Second hand purchases: Not included.

Missing or faulty prices: The transfer of prices from the previous observation and extrapolation via the usage of changes in other prices for the same item, are the methods used for missing prices.

Period for allowing imputed missing prices: The imputed price is used for a maximum of two months and, if the product is not available in the third month, it is replaced.

Disappearance of a given type or quality from the market: If a good is permanently unavailable, it is replaced by using one of the following methods: i) method of substitution; ii) chain method; and iii) the selection of a new good.

Quality differences: No quality adjustment is made.

Appearance of new items: The selection of a new good is made when there is neither direct substitution nor close good to the "old" one. In such a case, the "old" good is excluded from the survey and with the purpose to ensure the price equivalence, another modern good is selected. When the price for the "new" good is known only for the reference month, it is mentioned in the enquiry form for the reference month as base one and is used to compile index in the next month. If it is known as a reported one and the previous price of the "new" good, the "new" good is included into the compilation of price index during the reference month.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Fresh fruits and vegetables, clothes and footwear.

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 on out-of season products are estimated or the method of substitution of goods i.e. method of average weighted prices is used.

Treatment of housing

Treatment of owner-occupied housing: Owner occupied housing is not included in the CPI.

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: The computation of CPI is made according to the modified Laspeyres formula:

$$I_{t/t-1} = \sum \left[ W_{j,0} \times \frac{i_{j,t/0}}{i_{j,t-1/0}} \right],$$

where:

- $I_{t/t-1}$ – price index of the reference month over the previous one;
- $W_{j,0}$ – share of expenditure for the representative good (service) ($j$) in the base period (0);
- $i_{j,t/0}$ – long-term index for price of representative good (service) ($j$) of the reference period ($t$) as compared to base one (0);
- $i_{j,t-1/0}$ – long-term index for price of representative good (service) ($j$) of the previous period ($t$) as compared to base one (0)

Formula of aggregating regional/population group indices into national index: Regional indices are aggregated into the national CPI through the long-term indices for consumer prices which are multiplied by product of consumer money expenditure of households and average number of available population from each region.

Monthly and annual average prices: Monthly average prices are produced for 27 regions and by the whole country. The average prices by region are produced as average arithmetical weighted ones. A share of average annual available population of the cities where registration is conducted in the total available population of region is taken. The average prices for the country are produced as average arithmetical weighted ones. A share of consumer money expenditure of households multiplied by average annual available population of each region in the total making of consumer money expenditure and average annual available population is taken as a weighting base.

Seasonally adjusted indices: No seasonal adjustment.

Software used for calculating the CPI: Microsoft Excel, Power Builder.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: The employees of regional statistics offices regularly control the accuracy of the registration by regularly checking the enquiry forms for price registration of consumer goods (services) being provided from urban settlements. Also, the work is checked by accompanying a registrar by a controller during the process of collecting information about prices.

Control procedures used to ensure the quality of data processed: With the purpose of avoiding mistakes made by the price registrars, regional data validation is made at central level.
**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** The CPI is published on the 6th day after the end of the reference month.

**Level of detailed CPI published**

**Paper publication:** Basic Items

**Online:** Group-level app. 40 groups, Class-level (100 classes), Basic items

**Restricted Access:** All items CPI, Average prices

**Separate indices published for specific population groups:** No

**Type of products for which average prices are calculated and disseminated:** Average prices are calculated for all goods and services included in the CPI basket. The average prices for selected foodstuffs are published in publication Consumer Price Indices. Also, information about the average prices is available at request.

**Documentation**

**Publications and websites where indices can be found:** Press release: Price Indices; Internet website: [www.ukrstat.gov.ua](http://www.ukrstat.gov.ua)

**I: Other Information**

Reported by the country in 2012.

**United Arab Emirates**

**A: Identification**

**Title of the CPI:** Consumer Price Index

**Organisation responsible:** National Bureau of Statistics

**Periodicity:** Monthly

**Index reference period:** Calendar year 2007

**Weights reference period:** 2007/2008 Household Income and Expenditure Survey (HIES)

**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, macroeconomics modelling and other analytic uses.
B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

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

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index measures the change in the prices of a market basket of goods and services purchased by all types of households.

Classification: Classification of Individual Consumption by Purpose (COICOP)

Sources of weights: Household expenditure surveys

Frequency of weight updates: Above 5 years

D: Sample design

E: Data Collection

Approximate number of localities, outlets and price observations: Outlets: 430, Price observations: 1,133.

Frequency with which prices are collected: The prices are collected on a monthly basis in all seven emirates. Prices are collected in at least three outlets for each food item and non-food item in each Emirate. Weekly prices are collected for fish, fruits, and vegetables.

Methods of Price Collection

- Personal data collection

Treatment of:

Black market prices: Illegal goods are not covered by the CPI.

Missing or faulty prices: Imputation methods are used for missing prices.

Disappearance of a given type or quality from the market: If an item is no longer available, a replacement item is selected.

Quality differences: Adjustments are made for changes in quality due to moving from the previous item specification to the substitute item specification
Treatment of seasonal items and seasonality

**Items that have a seasonal character and their treatment:** There are seasonal products.

Treatment of housing

**Treatment of owner-occupied housing:** The CPI includes imputed rents for owner occupants and is measured by the rental equivalence approach.

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:** Higher-level aggregate indices are computed using the Laspeyres index formula.

**Monthly and annual average prices:** The Emirate level monthly average prices are calculated as the geometric mean of the monthly prices. The national level monthly average prices are calculated as expenditure weighted arithmetic average of the monthly Emirate level average prices.

**Seasonally adjusted indices:** Seasonal adjustments are done.

G: Editing and validation procedures

**Control procedures used to ensure the quality of data collected:** CPI data is checked in the field offices and further quality checks are made at MOE headquarters using appropriate computer programs. Outliers are identified and where necessary the price collectors and/or respondents are contacted to verify the accuracy of these data.

H: Documentation and dissemination

**Timeliness of dissemination of the CPI data:** CPI data is disseminated 2 to 3 weeks after the end of the reference month.

**Level of detailed CPI published**

**Paper publication:** All items CPI, Division-level, Group-level

**Online:** All items CPI, Division-level, Group-level

**Documentation**

**Publications and websites where indices can be found:** The monthly CPI is made available through a short news release and The Annual Economic and Social Report (Arabic and English). The index is also disseminated through the website [http://www.uaestatistics.gov.ae/EnglishHome/ReportsByDepartmentEnglish/tabid/104/Default.aspx?MenuId=1&NDId=88](http://www.uaestatistics.gov.ae/EnglishHome/ReportsByDepartmentEnglish/tabid/104/Default.aspx?MenuId=1&NDId=88)
Publications and websites where methodological information can be found: A brief description of the methodology for compiling the CPI is available in Arabic upon request to the National Bureau of Statistics.

I: Other Information

Reported by the ILO in 2013.

United Kingdom

A: Identification

Title of the CPI: Retail Prices Index

Organisation responsible: Office for National Statistics

Periodicity: Monthly

Price reference period: Jan 1987=100

Weights reference period: 2010

Main uses of CPI: Indexation of wages, pensions and/or social security payment, indexation of rents, contracts and/or other payments, computation of purchasing power of households, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide (incl. expenditure by UK households abroad)

Price collection: Nation-wide

Population coverage: Resident households of nationals

Population groups excluded: Institutional households, high-income households (4%) and households which derive at least ¾ of their income from state pensions and benefits.

Consumption expenditure includes:

• Food consumed away from home;
• Mortgage interest;
• Housing maintenance, minor repairs;
• Major repairs, conversions and extensions to owner occupied housing
• Second hand goods purchased (only second hand cars);
• 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)
• Expenditures abroad

**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;
• Purchase of gifts of goods and services given to others outside the household;
• 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;

**C: Concepts, definitions, classifications and weights**

**Definition of the CPI and its objectives:** The Retail Prices Index (RPI) is the most long-standing general purpose measure of inflation in the UK. The uses of the RPI include the indexation of various prices, the uprating of index-linked gilts and the revalorisation of excise duties. Prior to April 2011 it was also used for the indexation of benefits, tax credits and public service pensions.

**Definition of consumption expenditures:** The RPI mostly measures the acquisition of goods and services, but there are exceptions where it has been decided that this is not the most appropriate approach.

**Classification:** RPI classification

**Weights include value of consumption from own production:** No

**Sources of weights:** Household expenditure surveys, and a variety of sources for areas (e.g. tobacco) where it is expected that the household expenditure survey will underestimate expenditure.

**Frequency of weight updates:** Annual
Price updating of weight reference period to the index reference period: Expenditure values are revalued to base month prices (i.e. the current January) using the change in the appropriate RPI indices.

Weights for different population groups or regions: Regional stratum weights are used in the construction of many item indices, and the same weights are used in the RPI. These regions are equivalent to the EU NUTS1 level.

D: Sample design

Sampling methods:

Localities: Stratified sampling with PPS sampling in each stratum

Outlets: Stratified sampling with PPS sampling in each stratum

Products: Judgmental sampling

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 number of locations, outlets and products sampled are designed to best reflect consumer spending patterns given available resources.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: Price collectors are asked to choose one variety ‘representative of what people buy in your area’ from all products matching the specification. To facilitate this, they ask the retailer what are the most popular brands and those stocked regularly.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 141, Outlets: 20,000, Price observations: 180,000

Frequency with which prices are collected: Most items are collected monthly; those items where it is known that prices change only occasionally (e.g. some services) are collected quarterly. Some regulated prices (e.g. council tax) are only collected annually at the point at which they are known to change.

Reference period for data collection: Most prices are collected on and around a specific Tuesday towards the middle of the month.
Methods of Price Collection

- Personal data collection for goods sold in shops.
- Telephone interviews for services, e.g. garage charges.
- Internet for internet purchases, goods with a national pricing policy.
- Official tariffs for TV licences.

Treatment of:

Discounts and sales prices: Generally included in line with HICP guidelines – ‘Buy one, get one free’ offers are ignored.

Black market prices: Not collected.

Second hand purchases: Generally excluded, with the exception of second hand cars

Missing or faulty prices: Goods which are missing (but should be available) in a given month are carried forward for a maximum of 3 months, at which point a replacement item must be selected.

Period for allowing imputed missing prices: Maximum 3 months.

Disappearance of a given type or quality from the market: If an item disappears from the market, the replacement item will be selected by the price collector who will attempt to find a replacement that fits the top-line item description and is as comparable as possible with the previous item.

Quality differences: A variety of quality adjustment methods are used including option costing, single-variable adjustment and hedonic quality adjustment.

Appearance of new items: New items are introduced to the ‘basket’ of goods and services as part of the annual weights update.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Some fruits and vegetables, clothing items and seasonal furniture. Prices are imputed forward using the price movements of comparable ‘in-season’ goods already in the basket.

Seasonal food items: Seasonal food items are included in the RPI 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 RPI 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:** Mortgage interest payments, house depreciation and costs associated with purchasing a house are included.

**Types of dwellings covered by the rent data:** All types i.e. private rents collected on a rolling quarterly basis and public rents collected at fixed points (usually annually) when price changes occur.

**F: Computation**

**Formula used for calculation of elementary indices:** The ratio of arithmetic mean prices (Dutot index) (Direct form) and the arithmetic average of the price ratios (Carli index) (Direct form).

**Formula to aggregate elementary indices to higher-level indices:** Laspeyres type (Lowe) indices.

**Formula of aggregating regional/population group indices into national index:** Laspeyres type (Lowe) indices.

**Monthly and annual average prices:** Averages of prices for selected items (mostly food) are calculated for the RPI. The items are those which are likely to be reasonably homogenous across all outlets and over time, so that an average price is reasonably meaningful. For each January, the number of valid prices for each item, the average and the 10th and 90th percentiles are calculated. For subsequent month up to and including the following January, the figures are the January average price uprated by the price index for that item.

**Seasonally adjusted indices:** Prices in the RPI are not seasonally adjusted. However, the ONS produces a seasonally adjusted RPIY (RPI excluding mortgage interest payments and indirect taxes). X12 ARIMA is used for the calculations.

**Software used for calculating the CPI:** Ingress relational database. Some Excel spreadsheets are used for data collection.

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** Several checks are carried out on data entered into the hand-held computers by collectors, including ensuring price indicator codes have been used sensibly, plus price change and min/ max value checks. To check price collections are carried out correctly, auditors employed by ONS carry out monthly quality audits or individual local price collections selected by ONS. These can take the form of the auditor accompanying a price collector or in retrospectively visiting the outlets visited by the price collector and checking to see that the prices were correctly recorded.
Control procedures used to ensure the quality of data processed: Once data are received in the office, the data collection checks outlined above are applied again. Prices failing either test are excluded unless manually accepted during subsequent analysis by ONS staff. An outlier detection process known as the Tukey algorithm is then applied to the remaining prices. All prices failing the Tukey algorithm excluding those within 10 index points of the item index calculated using the accepted prices, are marked as invalid. Further manual checking of invalid prices then takes place. Prices which have been marked with a ‘Q’ code (a query and note made by the price collector for ONS staff to examine) are checked and verified. As a final check of the acceptance of high and low indices in the final index calculation, all individual price quote indices above 180 or below 60 are identified. For each, a report of all locally collected quotes, treated as valid, is issued to senior price analysts for final approval. At this stage, the scrutiniser will seek confirmation that particularly high or low outliers have been checked and may withdraw them from the final calculation if not satisfied.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The RPI is published on a Tuesday approximately three weeks after the end of the reference period.

Level of detailed CPI published

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

Separate indices published for specific population groups: RPI pensioner indices are published.

Type of products for which average prices are calculated and disseminated: Averages of prices for selected items (mostly food) are calculated for the RPI. The items are those which are likely to be reasonably homogenous across all outlets and over time, so that an average price is reasonably meaningful.

Documentation


I: Other Information

Reported by the country in 2012.
United States of America

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Bureau of Labor Statistics

Periodicity: Monthly

Index reference period: 1982-1984

Weights reference period: 2009-2010

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: Urban areas

Price collection: Urban areas

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

Population groups excluded: Institutional households (1.29%), military families i.e. (consumer units that receive 50% or more of their income from armed forces pay), farm families, rural and non-metropolitan population.

Consumption expenditure includes:

- Food consumed away from home;
- Income in-kind receipts of goods;
- Income in-kind receipts of services;
- Housing maintenance, minor repairs;
- Major repairs, conversions and extensions to owner occupied housing;
- Purchase of gifts of goods and services given to others outside the household;
- Second hand goods purchased (only used cars and trucks);
- 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);
- Expenditures abroad

Consumption expenditure excludes:

- Foods produced for own final consumption;
- Other goods produced for own final consumption;
- Services produced for own final consumption;
- In-kind goods received as gifts;
- In-kind services received as gifts;
- Purchase of owner-occupied housing;
- Mortgage repayments;
- Mortgage interest;
- 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

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The CPI is a measure of the average change over time in the prices paid by urban consumers for a fixed market basket of consumer goods and services.

Definition of consumption expenditures: Expenditures are typically the acquisition costs, as measured by the actual financial obligation at the time of the acquisition, in dollar terms, for any payment method, for goods and services. A notable exception is rental equivalence. Government user fees for water and sewage, auto registration, vehicle tolls, and taxes directly associated with consumer purchase are also included.

Classification: BLS CPI market basket of goods and services

Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Every two years

Price updating of weight reference period to the index reference period: Estimated expenditures in the weight reference period are updated to the month before their first use in index calculation (the pivot month). The update relative is calculated as the ratio of the pivot month index divided by the average index value during the weight reference period.
Consequently, the updated expenditure weight reflects quantities from the weight reference period and implicit prices from the pivot month.

**Weights for different population groups or regions:** Weights are compiled for wage earner population. Additional weights are compiled for the elderly population for use in an experimental index series.

**D: Sample design**

**Sampling methods:**

*Localities:* Stratified sampling with PPS sampling in each stratum

*Outlets:* Stratified sampling with PPS sampling in each stratum

*Products:* Stratified sampling with PPS sampling in each stratum

**Frequency of sample updates:**

*Localities:* Every ten years

*Outlets:* Continuous (on a rotating basis)

*Products:* Continuous (on a rotating basis)

**If sample updates are irregular indicate when last updates were introduced:** While the overall outlet and product samples are rotated continuously, the sample for a given item in a given area is rotated every 4 years for commodities and services and every 6 years for housing.

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:** The Commodities & Services sample allocation methodology is as follows: First, a variance function that projects the variance of price change as a function of major item groups for the commodity and service components is modelled. Second, a cost function that predicts the total annual cost of the commodity and service components of the CPI is formulated. Third, values for all coefficients of the two functions, including estimates of outlet sample overlap, are estimated. Fourth, nonlinear programming techniques are used to determine approximately optimal sizes for the item and outlet samples needed to minimize the CPI variance under varying assumptions of annual price change subject to cost constraints. The Housing sample is allocated proportional to the housing expenditures within each area. The CPI covers the entire consumption sector of the US economy for all urbanized areas.

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Localities: 87 Primary Sampling Areas, Outlets: 27,000 retail outlets and 7,500 housing units, Price observations: 107,500 (attempted price quotations): 100,000 (C&S) and 7,500 (Housing)
**Frequency with which prices are collected:** Monthly – shelter, all food at home, fuels & utilities, housing at school, tenants and household insurance, lodging away from home, telephone services, tobacco products, postage & delivery services, motor fuel, state and local vehicle fees, parking & tolls, tuition & education expenses and recreational reading materials, shelter, Bi-Monthly – food away from home, apparel and upkeep, medical care, recreation commodities & services other than reading material, household furnishings and operations, transportation less motor fuel.

**Reference period for data collection:** BLS collects prices throughout the entire month. Observations are designated into certain periods (5/7 days) within each month and then re-priced during that designated period.

**Methods of Price Collection**

- Personal data collection for food, apparel, services, household commodities, medical care, transportation and shelter.

- Telephone interviews for utilities, recreational and household services, tuition, tobacco, alcoholic Beverages and shelter.

- Internet for apparel, services and household commodities.

- Secondary sources for used cars and trucks and airline fares.

**Treatment of:**

**Discounts and sales prices:** They are used in the calculation of the index.

**Black market prices:** Not Eligible

**Second hand purchases:** Other than used cars and trucks – not eligible

**Missing or faulty prices:** BLS employs multiple methods to account for missing or faulty prices, including class mean and cell relative imputation, carry forward and re-weighting methods, among others.

Period for allowing imputed missing prices: If the retail outlet indicates an item or service is temporarily or seasonally unavailable BLS allows the imputation time period to vary by category. The range varies from 1 month to 24 months before a data collector is instructed to select a replacement item.

**Disappearance of a given type or quality from the market:** When an outlet discontinues an item or service the data collector utilizes a BLS collection form (“checklist”) and the BLS substitution procedures to find the closest substitute that the outlet offers for sale. The collection form and procedure ensure that as many as possible of the critical quality characteristics of the replacement are the same as those of the discontinued item.

**Quality differences:** BLS employs multiple methods to account for quality change, determining price on a per unit basis, (accounts for size/quantity change), manufactured
provided adjustments (new and used vehicles) and hedonic regression analysis (apparel, electronics and appliances).

**Appearance of new items:** For most categories, BLS will continue to price the selected item until it is no longer available at the outlet. The appearance of new items in the marketplace may be reflected in the sample at sample rotation or at substitution. Exceptions to this procedure include new vehicles (model year change-over), personal computers (national office directed substitution) and prescription drugs (national office directed substitution).

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** i) Fresh fruits: The number of quotes is doubled to ensure that, despite the seasonal disappearance of a substantial number of quotes, a large enough number of in-season quotes remains to calculate the index. The quotes in these ELIs are paired; that is, for each original quote that is selected, a second quote in the same category and outlet is initiated and priced 6 months later. ii) Apparel: The number of quotes is doubled to ensure that, despite the seasonal disappearance of a substantial number of quotes, a large enough number of in-season quotes remains to calculate the index. One quote of each pair is designated fall/winter, and one quote is designated spring/summer. The fall/winter and spring/summer designations are used for the non-food quotes because these are the distinctions that are most commonly used by the retailing industry to categorize seasonal merchandise.

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

**Treatment of housing**

**Treatment of owner-occupied housing:** The cost of owner-occupied housing is estimated using the rental equivalence method. This method estimates the cost of owner-occupied housing based on actual market rents collected from a sample of renter-occupied housing units that are identified to be representative of owner-occupied housing.

**Types of dwellings covered by the rent data:** All types of dwellings are covered by the rent data. Examples include single detached, single attached, mobile home/trailer, and multi-unit dwellings. Rent data are collected by CPI field agents. The housing unit is first screened to ensure that it is eligible for the housing sample and, if eligible, it is initiated in person. Once a unit is initiated, it will be priced either in person or by phone every six months. Since rents are not volatile, the Housing sample is assigned to six sub-samples called panels. One-sixth of the sample is priced in January and then in July (panel 1), panel 2 in February and August, and so on through panel 6 in June and December. During initiation and each pricing, BLS collects: Contract rent and rental period (monthly, bi-monthly, weekly or for a specified
number of days); Utilities, facilities and any other such items included in the rent; Any subsidies or reductions in the rent in exchange for services the tenant provided; Any extra charges included in the contract rent for optional items such as parking; The number of rooms, type of housing structure, and other physical characteristics; Equipment used for air conditioning (A/C) and fuels used for heat and hot water.

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: Laspeyres formula. To aggregate the CPI-U and CPI-W, the BLS calculates an estimate of aggregate expenditures by summing the weighted indexes for the lower levels, and then dividing by the aggregation weight of the aggregate index. The aggregation weight is calculated as the updated expenditure weight divided by the pivot month index. The aggregation weight stays constant until the next weight update.

Each month:

\[ IX_{i,A,t} = \frac{\sum_{i \in I, a \in A} aggwt_{i,a,p} \cdot IX_{i,a,t}}{aggwt_{i,A,p}} \]

Weight update:

\[ expenditures_{i,a,p} = \frac{expenditures_{i,a,b} \cdot IX_{i,a,p}}{IX_{i,a,b}} \]
\[ aggwt_{i,a,p} = \frac{expenditures_{i,a,p}}{IX_{i,a,p}} \]

Formula of aggregating regional/population group indices into national index: The same formula is used as for other aggregates (above). In this case, I=All items, and A=U.S.city average. Because the Laspeyres formula is consistent in aggregation, the aggregation can be done in parts. In practice, depending on which set of trees we are using, we sometimes aggregate items first followed by areas, and sometimes areas first, followed by items.

Monthly and annual average prices: Prices are weighted by an implicit estimate of quantity, calculated by dividing the quote-level expenditure weight by the base price.

\[ \bar{p}_t = \frac{\sum W_{it} p_{it}}{\sum W_{it}} \]

Seasonally adjusted indices: X-12 ARIMA

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Software used for calculating the CPI: SAS

**G: Editing and validation procedures**

**Control procedures used to ensure the quality of data collected:** At the time of collection, data capture software identifies discrepant characteristics and significant price change, requiring either modifications to the data to bring discrepancies into alignment or to provide additional justifications, depending on the type and scope of the discrepancies. Collected data are randomly reviewed and/or recollected to independently verify the information.

**Control procedures used to ensure the quality of data processed:** Processed data are reviewed by staff, independent from data collectors. Data are flagged for review based on characteristics such as change in item; change in item description, or on price change. Review staff may enter into correspondence with collection staff for additional information. Additional review is performed for a subset of the flagged data, based on additional characteristics.

**H: Documentation and dissemination**

**Timeliness of dissemination of the CPI data:** CPI data is published approximately two weeks after 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), Basic items, Average prices

**Separate indices published for specific population groups:** The U.S. publishes a CPI for all urban consumers (CPI-U), a CPI for urban wage earners and clerical workers (CPI-W), and a CPI for Americans 62 years of age and older (CPI-E).

**Type of products for which average prices are calculated and disseminated:** Average prices are calculated for a wide variety of food and energy items.

**Documentation**

**Publications and websites where indices can be found:** The CPI detailed report can be found at http://www.bls.gov/CPI/ under ‘CPI Tables’. The current news release can be found at http://www.bls.gov/news.release/pdf/CPI.pdf.

**Publications and websites where methodological information can be found:** The Bureau of Labor Statistics (BLS) Handbook of methods details BLS methodological information. Chapter 17 of the Handbook covers the CPI and can be found at http://www.bls.gov/opub/hom/pdf/homch17.pdf.

**I: Other Information**

Reported by the country in 2012.
Uruguay

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: National Institute of Statistics

Periodicity: Monthly

Index reference period: December 2010 = 100


Main uses of CPI: Indexation of wages, pensions and/or social security payment, indexation or rents, contracts and/or other payments, deflate household expenditures in national accounts

B: CPI Coverage

Geographical Coverage

Weights: Urban areas

Price collection: Urban areas

Population coverage: Resident households of nationals

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index (CPI) is an aggregate indicator that measures the monthly variation in prices of goods and services consumed by households living in the urban areas of the country. The set of goods and services is selected on the basis of household consumption expenditure.

Classification: Classification of Individual Consumption by Purpose (COICOP)

Sources of weights: Household expenditures surveys and national accounts

Frequency of weight updates: Every 3-5 years

Weights for different population groups or regions: Weights are computed for Montevideo and the interior urban centers of the country.

D: Sample design

E: Data Collection
Frequency with which prices are collected: Monthly

Methods of Price Collection

– Personal data collection

Treatment of:

Discounts and sales prices: Purchase/sales prices of used goods are not collected.

Black market prices: Illegal goods are not included in expenditures in view of the difficulties involved in data collection.

Missing or faulty prices: Missing prices are imputed on the basis of the variation of the same product, if at least 33 percent of real prices are available in t and t-1; otherwise, a higher aggregate level is used. For missing prices of seasonal clothing and footwear, the last price is used when less than 33 percent of real prices are available in t and t-1.

Quality differences: Quality adjustments are made to goods and services defined as heterogeneous

Treatment of housing

Treatment of owner-occupied housing: The CPI excludes the imputed value of owner-occupied housing.

F: Computation

Formula used for calculation of elementary indices: The ratio of arithmetic mean prices (Dutot index) (Direct form) for homogenous products and the ratio of geometric mean prices (Jevons index) (Direct form) for heterogeneous products.

Formula to aggregate elementary indices to higher-level indices: The CPI index is a fixed base price Laspeyres index given by

\[ IPC_t^0 = \sum_{i=1}^{I} l_i^t \times w_i^0, \]

where

\( i \) = subscript representing each of the goods and services (ranging from 1 to \( i \))

\( IPC_t^0 \) = the consumer price index in period \( t \) based on the period 0.

\( l_i^t \) = the price index for product \( i \) in period \( t \).

\( w_i^0 \) = the weight of product \( i \) in the base period (period 0)
G: Editing and validation procedures

Control procedures used to ensure the quality of data processed: The coefficients of variation are reviewed before the CPI computation is completed. Outliers are confirmed with respondents, and a record of this confirmation is kept. Surveys are audited, both randomly and based on variations, to monitor the work of enumerators.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: CPI data is disseminated on the second business day of the month following the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions*)

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

Documentation

Publications and websites where indices can be found: The new release “"Indice de Precios del Consumo," INE” is available at http://www.ine.gub.uy

Publications and websites where methodological information can be found: Methodological information can be found in the publication “Nota Metodológica - Cambio de Base Diciembre 2010” available at http://www.ine.gub.uy

I: Other Information

Reported by the ILO in 2013.

Vanuatu

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: The National Statistics Office

Periodicity: Quarterly

Price reference period: December 2008 Quarter

Index reference period: March 2000 Quarter
Weights reference period: 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: Urban areas

Price collection: Urban areas

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;
- In-kind goods received as gifts;
- In-kind services received as gifts;
- Housing maintenance, minor repairs;
- Non-life insurance premiums (e.g. vehicle, housing, other property, medical), gross of claims;
- Expenditures abroad

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;
- 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;
- Second hand goods purchased;
- Luxury goods;
- Financial services (including fees for financial advice, brokerage fees);
- Interest payments (excluding mortgage interest payments);
- Life insurance premiums;
- Licences and fees (e.g. driver’s licence, hunting licence, vehicle registration);
- 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

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The main objective of Vanuatu CPI is to measure the inflation for consumer goods and services purchased by resident households living in Port Vila and Luganville.

Definition of consumption expenditures: Consumption expenditure in the Vanuatu CPI context is defined as acquisition but it currently excludes owner occupier housing expenditure as there is no proper housing index to price this item.

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: The expenditure weights from the 2006 HIES was price updated to the reference price base of December quarter of 2008. The index base for the previous series of March quarter of 2000 is still kept.

Weights for different population groups or regions: Weights for the two Urban Centres: Port Vila, Luganville and the Urban are compiled.

D: Sample design

Sampling methods:

Localities: Experience/Judgemental

Outlets: Experience/Judgemental

Products: Experience/Judgemental

Frequency of sample updates:

Localities: At the time of updating the basket of goods and services and the weights, ideally every 5 years.

Outlets: At the time of updating the basket of goods and services and the weights, ideally every 5 years.
Products: At the time of updating the basket of goods and services and the weights, ideally every 5 years.

If sample updates are irregular indicate when last updates were introduced: From 2009 the samples are expected to be updated every five years. However, the current system caters for inclusion of new items that have become main household consumption items that flood the market.

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: The rule of thumb suggests that, at least four items per elementary aggregate (EA) for the non-seasonal items would be sufficient, but sample size for seasonal items is much more as they are priced on a fortnightly basis.

Criteria used for selecting an item variety in the outlet in case of loose specifications provided by the central office: This is done in consultation with the retailers, as items descriptions from the Household Income and Expenditure Diary are not specific enough.

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 2, Outlets: 300, Price observations: 2,955

Frequency with which prices are collected: Prices for fruits, vegetables and bread are collected on a fortnight basis, whereas the rest of the items are priced on a quarterly basis.

Reference period for data collection: The fortnight price collection is done every Thursdays of every 2 weeks. The quarterly price is undertaken from the second week of the middle month of the quarter to the third week. The daily data collection for the 2 weeks period is organised by outlets by locality to minimize the transportation cost, but organised into days, from day 1 to day 10. Items from each outlet are always priced on the same collection day.

Methods of Price Collection

- Personal data collection for all items.

- Telephone interviews for school fees.

Treatment of:

Second hand purchases: Not included.

Missing or faulty prices: Two methods are used: i) carrying forward of the price if seasonal items; ii) for other items that are temporarily out of stock, their prices are imputed by average price movement for the items within the elementary aggregate.

Period for allowing imputed missing prices: Missing prices for three quarters is allowed. If the price is missing for the third consecutive quarter, a price of a substitute item is collected, and then the price of the replacement item is activated in the following quarter. If the item re-appears the price of the substitute item is ignored.
Disappearance of a given type or quality from the market: A close to similar item in terms of type, size, and quality is chosen as replacement item.

Quality differences: Quality Adjustment is done for those items that have changed in size (quantity) or/and quality. The quantity and quality adjustment are done by the system upon specification units of new and old items quantities, as well as the estimated quality changes.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Mostly domestic/local fruits and vegetables.

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.

Method to impute the price of seasonal items: The method used to impute price development of in-out-of-season periods is carrying forward the last observed price and impute the price by using price development of in-season products.

Treatment of housing

Treatment of owner-occupied housing: Owner-occupied housing is currently excluded due to lack of proper housing index.

Types of dwellings covered by the rent data: The rentals for specific dwellings are priced from real estates on a quarterly basis on a face to face interview. The types of rental dwellings priced are two and three bed-rooms dwellings with kitchen and sitting room.

F: Computation

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

Formula to aggregate elementary indices to higher-level indices: Value aggregates are obtained at the elementary aggregate (EA) level by extrapolating the previous quarter value aggregate by the ratio of arithmetic/geometric mean prices. The indices at the EA level are obtained using the respective EA value aggregates. The higher-level indices are obtained by adding the sub-value aggregate before obtaining the index for respective value aggregate for any level of interest.

Formula of aggregating regional/population group indices into national index: The value aggregates are aggregated at the EA level for each of the region, and the indices are derived subsequently.

Monthly and annual average prices: There are items priced on a fortnight basis. At the end of the quarter, the six prices are averaged to be added to the quarterly list for the items which are only priced on a quarterly basis. Those sample items are categorised into two groups
where two different methods of calculation are applied. The first group where geometric mean is applied to obtain average prices at the elementary aggregate (EA)/basic item level. This method is used for the majority of items but not for items whose prices can possibly become zero. The second method used is the relative of average of prices at the EA level.

Seasonally adjusted indices: There is no seasonal adjustment to the series, but we compile the underlying CPI, which is estimated by excluding the prices for the fruits and vegetable items which prices are influenced by government policy.

Software used for calculating the CPI: Microsoft Excel has been used, with designed macros to perform specific routine.

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: The outlets are allocated to the ten price collection days (day 1 to 10). The prices are collected within the 10 days, and the price collection sheets are examined for completeness of the pricing before data captured.

Control procedures used to ensure the quality of data processed: A check is run to flag missing prices, particularly at the elementary aggregate with single item. For each item there is allocated an acceptable movement limits, generally 20% plus/minus. The system flags all item prices which price movement falls outside the range.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: 6 weeks after the reference quarter.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Separate indices published for specific population groups: Indices are only published for Luganville, and Port Vila.

Type of products for which average prices are calculated and disseminated: Average prices are calculated on a had hoc basis, upon request.

Documentation

Publications and websites where indices can be found: Statistics update: Consumer Price Index, March Quarter 2012; Internet website: http://www.spc.int/prism/country/vu/stats/

Publications and websites where methodological information can be found: Statistics update: Consumer Price Index, March Quarter 2012; Internet website: http://www.spc.int/prism/country/vu/stats/

I: Other Information
Vietnam

A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: General Statistical Office

Periodicity: Monthly

Index reference period: 2009 = 100


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

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Consumption expenditure excludes:

- Foods produced for own final consumption;
- Other goods produced for own final consumption;
- Services produced for own final consumption;
- Financial services (including fees for financial advice, brokerage fees)

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The consumer price index (CPI) is a relative indicator measuring the trend and level of change in prices over time of a fixed number of goods and services which are represented for end consumption to serve normal lives of the people.

Classification: Vietnam CPI classification. This classification is based on country needs, but takes into account details from other countries.
Weights include value of consumption from own production: No

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Every 3-5 years

D: Sample design

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Item selection: The items selected represent those that take the largest share in the group, with the highest consumption, which are likely to be available for a long time, and of which the prices have dominant effect on the prices of other goods of the same kind.

Outlet selection: The number of outlets from which prices are collected is based on the relative population of each province. The outlets can be shops or markets where the items are available and are those with the largest turnover.

E: Data Collection

Frequency with which prices are collected: Prices are collected monthly.

Reference period for data collection: The prices are collected 3 times a month (on the 25th of the previous month and the 5th and 15th of the reference month).

Methods of Price Collection

- Personal data collection

- Official tariffs

Treatment of:

Missing or faulty prices: If the prices for an item were not available in the same period, the group index is used to estimate the price of the item. If an item ceases to be available, the GSO selects a replacement item.

Treatment of seasonal items and seasonality

Items that have a seasonal character and their treatment: Prices for seasonal items are obtained by extrapolating from the price of the item of the same group.

Treatment of housing

Treatment of owner-occupied housing: The CPI excludes imputed rent for owner-occupied dwellings and financial services.

F: Computation
Formula used for calculation of elementary indices: The ratio of arithmetic mean prices (Dutot index) (Direct form)

Formula to aggregate elementary indices to higher-level indices: CPI in Vietnam is calculated by Laspeyres formula which is in accordance with international practice:

\[
I^{t-0} = \frac{\sum_{i=1}^{n} p^t_i q^0_i}{\sum_{i=1}^{n} p^0_i q^0_i} = \sum_{i=1}^{n} W^0_i \left( \frac{p^t_i}{p^0_i} \right)
\]

where:

\(I^{t-0}\) : CPI of the \(i^{th}\) reporting period compared to the base period 0.
\(p^t_i\) : Price of \(i^{th}\) goods in the \(t^{th}\) reporting period
\(p^0_i\) : Price of \(i^{th}\) goods in base period
\(W^0_i\) : Constant weight of the base period.
\(q^0_i\) : Quantity of \(i^{th}\) good in the base period.

Formula of aggregating regional/population group indices into national index: The GSO derives national price indices for each regional group and aggregate using the general weights of the whole country.

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The index is published on the 24th of the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation


I: Other Information

Completed by ILO in 2013.

Yemen
A: Identification

Title of the CPI: Consumer Price Index

Organisation responsible: Central Statistical Organisation

Periodicity: Monthly

Index reference period: December 2008 = 100

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.

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer price index (CPI) measures the rate of change in the prices of goods and services bought by the consumers.

Classification: COICOP (Classification of individual consumption by purpose) with 12 major groups.

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Every 3-5 years

D: Sample design

E: Data Collection

Frequency with which prices are collected: Price data for fruits and vegetables are collected weekly. Prices for food items and other products and services are collected monthly. Prices for clothing & footwear, household cleaning materials, rent, and miscellaneous products are collected quarterly. School fees are collected once annually. Telecommunication, transportation and electric appliances prices are collected twice a year.

Reference period for data collection: Reference period for data collection is as follows: Fruits and vegetables – (1st, 8th, 16th and 22nd of every month); Food items and other
products and services – (16th, 17th, 18th and 19th of every month); Clothing & footwear, household cleaning materials, rent and miscellaneous products – collection is quarterly in the months of March, June, September, December; Telecommunication, transportation, electric appliances – collection is once every 6 months in June and December.

Methods of Price Collection

- Personal data collection
- Official tariffs

Treatment of seasonal items and seasonality

Treatment of housing

Types of dwellings covered by the rent data: Household rents are collected once every 3 months and prices are collected in the months of January, April, June and October.

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: The modified Laspeyres formula is used for aggregation of elementary indices into higher-level indices.

G: Editing and validation procedures

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The CPI is normally released within one week following 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

Documentation

Publications and websites where indices can be found: CPI bulletin, CSO in Arabic and English, Statistical Yearbook, CSO (English and Arabic); Internet website: Data on CPI is available at http://www.cso-yemen.org/content.php?lng=english&pcat=231

Publications and websites where methodological information can be found: CPI methodological description can be found at http://www.cso-yemen.org/content.php?lng=english&id=362
I: Other Information

Completed by ILO in 2013.

Zambia

A: Identification

Title of the CPI: National Consumer Price Index

Organisation responsible: Central Statistical Office, Zambia

Periodicity: Monthly

Index reference period: 2009 = 100


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, macroeconomic modelling and other analytic uses.

B: CPI Coverage

Geographical Coverage

Weights: Nation-wide

Price collection: Nation-wide

Population coverage: Resident households of nationals.

Population groups excluded: Institutional households

C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: The Consumer Price Index measures changes in the average level of retail prices of goods and services purchased by typical households for the purpose of consumption.

Classification: COICOP (Classification of individual consumption by purpose)

Sources of weights: Household expenditure surveys.

Frequency of weight updates: Above 5 years
**Price updating of weight reference period to the index reference period:** The weights are adjusted from the weight reference period to the index period using the method of price updating.

**D: Sample design**

**Sampling methods:**

*Outlets:* Judgmental sampling  
*Products:* Judgmental sampling

**Frequency of sample updates:**

**Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples:** Outlet selection: Purposive approach is used in selecting outlets e.g. outlets that are chosen are those most frequently visited by the households. Generally, available information and application of best judgement was used to ensure that representative samples are selected. When an outlet has closed permanently, it is usually replaced with a similar outlet not too far from the one which closed down.

**E: Data Collection**

**Approximate number of localities, outlets and price observations:** Outlets: 3,000, Price observations: 30,000

**Frequency with which prices are collected:** Prices are collected once per month.

**Reference period for data collection:** The price collection period is from 1st to 10th of every month.

**Methods of Price Collection**

- Personal data collection for most of the items.

- Central price collection for charges of public utilities or services provided by deregulated (or regulated) bodies or government (such as electricity tariffs, bus, train, fares, postal services, telephone services etc.) and taxes and license fees paid to government e.g. television license and vehicle license.

**Treatment of:**

**Missing or faulty prices:** When a product is temporary unavailable, the current price is estimated using the monthly price change in prices of the set of products in the same COICOP class (short run geometric mean imputation)

**Disappearance of a given type or quality from the market:** When, a product becomes permanently unavailable, a close substitute is selected. The use of a chained index makes the
estimation of missing prices and introduction of replacement easier. A replacement is included in the index as soon as prices for two successive months are available.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** The missing prices of 'strongly' seasonal items are estimated as in the case of temporary missing products.

**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.

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

**Treatment of housing**

**Types of dwellings covered by the rent data:** A sample of housing units is surveyed every month to collect house rent data. A sample of 100 housing units is covered from each province except for Lusaka and the Copper belt with samples of 300 housing units each. The housing units have been stratified into low, medium and high cost units.

**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:** Laspeyres type arithmetic mean formula for higher-level aggregation is used, in a chained form.

**Formula of aggregating regional/population group indices into national index:** The national index is calculated in two steps.

a) Class/Group/Division/All items indices at province level are calculated as weighted averages of the indices for elementary aggregates according to the following formula:

\[ I_{t,0} = \frac{\sum_{i=1}^{n} w_{0,i} \left( \frac{p_{t,i}}{p_{0,i}} \right)}{\sum_{i=1}^{n} w_{i}} \]

where

- \( I_{t,0} \) is an index for all products showing the average change between period 0 and \( t \)
- \( p_{t,i} \) is the price of product \( i \) in a month \( t \).
- \( p_{0,i} \) is the base period price of product \( i \) in a month 0.
- \( w_{0,i} \) is the provincial weight of product \( i \).

(b) These provincial indices (at the Class/Group/Division/All items level) are then further combined to estimated indices at the national level. The national indices are calculated as a weighted average of provincial indices by using regional weights. The formula is as follows:
\[ f^p_{t,0} = \frac{\sum_{p=1}^{g} w^p_0 f^p_{t,0}}{\sum_{p=1}^{g} w^p_0} \]

where

- \( f^p_{t,0} \) is a provincial index for class/group/division/all items showing the average change between period 0 and \( t \).
- \( g^p_0 \) is the regional weight.
- \( n^p_{t,0} \) is a National index for class/group/division/all items showing the average change between period 0 and \( t \).

Software used for calculating the CPI: The software for data entry, processing and reporting is the Microsoft Access with Visual Basic for Applications (Windows based)

**G: Editing and validation procedures**

Control procedures used to ensure the quality of data collected: Manual editing of the data is done both in the field and in the office before data is submitted to the headquarters for entry and processing. Computer editing is done when prices are entered into the system on client PCS. The system compares quoted price against the previous month’s prices to ensure that the new price is within the acceptable range.

Control procedures used to ensure the quality of data processed: For problems identified during processing, a reference may be made to the physical price quotation (questionnaire), or where the officer performing the editing may use empirical knowledge of the product. In all cases, the price can be amended to reflect the value deemed to be correct.

**H: Documentation and dissemination**

Timeliness of dissemination of the CPI data: The CPI statistical bulletin is released the last Thursday of the reference month.

Level of detailed CPI published

Paper publication: All items CPI, Division-level (12 Divisions)

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

Documentation


Publications and websites where methodological information can be found: Methodological information can be found at [http://www.unece.org/fileadmin/DAM/stats/documents/ece/ces/ge.22/2012/Zambia_REVISED_CONSUMER_PRICE_INDEX.pdf](http://www.unece.org/fileadmin/DAM/stats/documents/ece/ces/ge.22/2012/Zambia_REVISE_D_CONSUMER_PRICE_INDEX.pdf)

**I: Other Information**
Zimbabwe

**A: Identification**

**Title of the CPI:** National Consumer Price Index (NCPI)

**Organisation responsible:** ZIMSTAT

**Periodicity:** Monthly

**Price reference period:** December 2008 = 100

**Index reference period:** December 2008 = 100

**Weights reference period:** 2001

**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 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.

**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;
- Housing maintenance, minor repairs;
- Second hand goods purchased (only second had motor cars);
- Luxury goods;
- 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
C: Concepts, definitions, classifications and weights

Definition of the CPI and its objectives: CPI measures the price change in a fixed market basket of goods and services of constant quantity.

Classification: COICOP (Classification of individual consumption by purpose)

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: Yes

Weights for different population groups or regions: Weights for urban and rural areas are computed.

D: Sample design

Sampling methods:

Localities: Stratified sampling with simple random sampling in each stratum

Outlets: Stratified sampling with simple random sampling in each stratum

Products: Stratified sampling with simple random sampling in each stratum

Frequency of sample updates:

Localities: Every five years

Outlets: Every five years

Products: Every five years

Criteria used for determining the optimal sample sizes and the coverage of localities, outlets, items and variety samples: Obtained from household budget surveys

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

E: Data Collection

Approximate number of localities, outlets and price observations: Localities: 10 provinces, Outlets: 2,220, Price observations: 14,000

Frequency with which prices are collected: Monthly
**Reference period for data collection:** 15th of each month.

**Methods of Price Collection**
- Personal data collection for all items.

**Treatment of:**

**Black market prices:** Not collected.

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

**Missing or faulty prices:** Omission

Period for allowing imputed missing prices: 3 times.

**Disappearance of a given type or quality from the market:** It is replaced with a new item.

**Appearance of new items:** If the item is in the budget and previously out of stock it can be priced.

**Treatment of seasonal items and seasonality**

**Items that have a seasonal character and their treatment:** Fresh fruits and vegetables and some clothes.

**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:** The method used to impute price development in out-of-season periods is carrying forward the last observed price.

**Treatment of housing**

**Treatment of owner-occupied housing:** Only actual rentals are collected.

**Types of dwellings covered by the rent data:** Rent per room for low and high density urban areas.

**F: Computation**

**Formula used for calculation of elementary indices:** The ratio of geometric mean prices (Jevons index) (Chained form)
Monthly and annual average prices: Geometric means are used

Seasonally adjusted indices: No

Software used for calculating the CPI: SAS

G: Editing and validation procedures

Control procedures used to ensure the quality of data collected: Checks for completeness of questionnaires, coverage and consistency of prices are done.

Control procedures used to ensure the quality of data processed: Every price change is checked against the questionnaire.

H: Documentation and dissemination

Timeliness of dissemination of the CPI data: The lapsed time between the end of the field operation and the first publication of the index is normally one month, i.e. data collection ends on the 15th of every month and the publication of the index is on the 15th of the next month.

Level of detailed CPI published

Paper publication: Division-level (12 Divisions), Group-level app. 40 groups

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

Separate indices published for specific population groups: No

Type of products for which average prices are calculated and disseminated: Bread, Maize, Meal, Rice, Flour

Documentation

Publications and websites where indices can be found: CPI leaflet, Quarterly prices bulletin and digest of statistics.

Publications and websites where methodological information can be found: CPI handbook 2010

I: Other Information

Reported by the country in 2012.