

# 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:** Laspeyre's index formula.

**Formula to aggregate elementary indices to higher level indices:** Laspeyre's index formula.

$$I_i = \frac{\sum_{j \in L} \frac{P_{ij}}{P_{i-1j}} \cdot \frac{P_{i-1j}}{P_{oj}} \cdot P_{oj} Q_{oj}}{\sum_{j \in L} P_{oj} Q_{oj}} \cdot 100$$

**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](http://www.cbs.gov.il) under the title “Price Indices”.

**Publications and websites where methodological information can be found:** Website: [www.cbs.gov.il](http://www.cbs.gov.il) for Price Indices and Price Statistics and Monthly Consumer Prices Index.

## **I: Other Information**

Reported by the country in 2012.