

## 13

## PRICES

## GENERAL

(Tables 13.1-13.2)

*PURPOSE OF PRICE INDICES*

The indices measure the percentage 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.

*WEIGHTS*

The weights of each index are value weights, and the importance attributed to each item of the index basket equals the percentage of the expenses on it or the revenue from it (during the base period), out of the total expenses or revenue included in the index.

*SAMPLE OF GOODS AND SERVICES*

The changes in the price levels of each item of the various indices are estimated according to the changes in the prices of a sample of various goods and services. The sample of goods is determined by their impact on the expenses or revenue covered by the index and by their ability to represent price trends of large groups of similar goods.

*METHOD OF COLLECTING PRICES*

The prices of each one of the goods or services in each business are determined on the basis of a fixed and detailed definition of the goods, and in accordance with a set of rule which aims to ensure that the index represents price changes but does not related to the quantity or quality of the goods. In output price indices, i.e., the Consumer Price Index and the wholesale price index of manufacturing output, the prices measured include taxes and impositions on the product, including VAT. In input price indices, however, the prices measured include all taxes and

impositions, excluding VAT.

*Labour cost* (formerly: wages) - for detailed definitions of wages and labour cost, see Introduction to Chapter 14 - *National Accounts*.

*METHOD OF COMPUTATION*

The index of change (in points) in the price of each one of the goods or services is computed according to the price of each as recorded in the various businesses over a given period (one month, a quarter-year, a year) in relation to the base period. The general index is obtained as a weighted average of the price indices of all goods or services whose prices are measured. An average annual index is obtained as an arithmetical average of the monthly or quarterly indices, except the agricultural output price index (see Definitions and Explanations in the *Price Statistics Monthly*, Hebrew only).

*UPDATING AND CHAINING THE INDICES*

Each index is updated every few years. When this is done, the basket and its weights are updated accordingly. In general, the updated index is presented in relation to a different base period from that used prior to the updating.

For practical purposes, different series of the same index, which are presented according to different base periods, can be chained and presented on a uniform base. The general formula for chaining (in terms of the base period) is multiplying the index by a "chaining coefficient". The coefficient being the index of the new base period, which is computed according to the old base divided by 100.

## THE CONSUMER PRICE INDEX

(See *Technical Series No. 60*)

(Tables 13.3-13.5)

*DEFINITION OF THE INDEX AND ITS APPLICATIONS*

The Consumer Price Index measures the percentage of change over time in the expenditure necessary for purchasing a "fixed basket" of goods and services, whose prices can be measured regularly. This "basket"

represents the consumption of households.

The index is used mainly for various linkages, as well as for determining the cost of living, allowances in wages and for analyzing the trends of prices in the economy.

In Table 13.5, the items of the index are classified in the same way as in the *Standard Classification of Economic Activities*, although not exactly identical.

#### SOURCES OF INDEX WEIGHTS

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 2015 until December 2016 is based on the findings of 2012-2013 Household Expenditure Surveys. In order to compute the index, the survey data have been adjusted to the average level of prices in 2014, and the index is presented for that period according to the average base: 2014 = 100 points.

#### SAMPLE OF GOODS AND METHOD OF COLLECTING PRICES

The change in the index is estimated according to changes in the consumer prices of about 1,300 goods and services. The prices of these items are collected by interviewers in the field or via phone from about 3,500 stores, businesses and households in about 100 localities (excluding the sample of rent prices).

#### CONSUMER PRICE INDEX SERIES

Period	Base period	Chaining coefficient to previous index
XI 1951-I 1959	XI 1951	..
I 1959-XII 1964	I 1959	2.753
I 1965-XII 1969	Average 1964	1.347
I 1970-XII 1976	Average 1969	1.237
I 1977-XII 1980	Average 1976	4.112
I 1981-XII 1985	Average 1980	8.349
I 1986-XII 1987	Average 1985	2.25 <sup>(1)</sup>
I 1988-XII 1993	Average 1987	1.775
I 1994-XII 1998	Average 1993	2.421
I 1999-XII 2000	Average 1998	1.581
I 2001-XII 2002	Average 2000	1.064
I 2003-XII 2006	Average 2002	1.068
I 2007-XII 2008	Average 2006	1.038
I 2009-XII 2010	Average 2008	1.051
I 2011-XII 2012	Average 2010	1.061
I 2013-XII 2014	Average 2012	1.052
Since I 2015	Average 2014	1.020

<sup>(1)</sup> In order to chain the 1985 indices to those prior to 1985, they must be multiplied by 100; in order to chain the indices as of 1986 and onward with those prior to 1985, they must be multiplied by the respective coefficient multiplied by 100.

#### PRICE INDEX OF INPUTS IN RESIDENTIAL BUILDING

(For a detailed explanation of index principles, the method of conducting the survey and the findings of the survey, see *Price Statistics Monthly*, No. 2 and No. 8, 2011 and No. 5, 2004).

(Tables 13.6-13.8)

#### DEFINITION OF THE INDEX AND ITS APPLICATIONS

The index measures the changes over time in the cost of a "fixed basket" of materials, products and services used for constructing residential buildings. This basket represents the composition of construction expenditures for contractors and subcontractors.

In addition to the system of indices relating to the total "basket" of residential building, since February 1992, a system of sub-indices related to building phases has been published.

The index is used mainly as a basis for linking building contracts, for deducting price changes from the changes in the value of investments in building, and as a general gauge of price changes in construction.

### SOURCES OF INDEX WEIGHTS

The index basket, whose prices have been measured since August 2011, is based on the findings of a survey of expenditure on construction of residential buildings conducted in 2010. The survey investigated only the components of inputs of new residential buildings whose construction was completed by the end of 2008.

In order to compute the weights, the survey data were evaluated at prices of the base period (July 2011 = 100.0 points).

### SAMPLE OF MATERIALS AND METHOD OF PRICE COLLECTION

The changes in the level of prices of various items in the index were estimated according to the change in the prices of a sample of materials and services sold to the population of contractors and sub-contractors in the industry. The prices were obtained from a sample of suppliers and wholesalers, importers, and various manufacturers. The information on prices was collected via telephone, fax, and skilled interviewers.

### SERIES OF PRICE INDICES INPUTS IN RESIDENTIAL BUILDING

Period	Base period	Chaining coefficient to previous index
VII 1950-I 1964	VII 1950	..
II 1964-XII 1968	I 1964	6.680
I 1969-IV 1975	Average 1968	1.259
V 1975-X 1983	VI 1975	3.434
XI 1983-I 1992	X 1983	176.512
II 1992-I 2004	I 1992	49.091
II 2004-VII 2011	I 2004	2.048
Since VIII 2011	VII 2011	1.323

### PRICE INDEX OF INPUT IN CONSTRUCTION OF COMMERCIAL BUILDINGS AND OFFICES (Tables 13.9-13.10)

#### DEFINITION OF THE INDEX AND ITS APPLICATIONS

The index measures the changes over time in the expenditures required to purchase a "fixed basket" of materials, products and services that is used for construction of commercial buildings and offices, and that represents the expenditures of contractors and sub-contractors.

As of February 2012, the index is presented according to the base January 2012=100.0 points.

In addition to the system of measurement that relates to the "fixed basket" for construction of commercial buildings and offices, as of the February 2012 index, a system of special sub-measures is published, by building phases. Moreover, a separate table is published with data on the price index of input in construction of commercial buildings and offices, by main groups.

The index serves mainly as a basis for linking contracts for construction of commercial buildings and offices, as well as for deduction of changes in prices from the changes in the value of investments in construction as a general changes in prices in the industry.

### SOURCES OF INDEX WEIGHTS

The index weights are based on the results of the Survey of Expenditure on Commercial Buildings and Offices. The survey population included new buildings constructed for use as commercial buildings and offices, that were completed between 2006 and 2009 and are larger than 500 sq. m.

### PRODUCT SAMPLE AND METHOD OF PRICE COLLECTION

Changes in the price levels of the various items in the index are estimated on the basis of the change in prices of the sample of materials and services that are sold to the population of contractors and sub-contractors in the industry. The prices are obtained from a sample of suppliers and wholesalers, importers, and various establishments. The prices are collected via telephone and fax by skilled interviewers.

### PRICE INDEX OF INPUTS IN ROAD CONSTRUCTION AND BRIDGING (Tables 13.11-13.12)

(A detailed explanation of index principles, the method of conducting the survey and its findings can be found in Special Series publication No. 688, *Index of Input Prices in Road Construction 1980/81*. The changes introduced into the index following the January 2010 update are presented in the *Price Statistics Monthly*, No 2, 2010.)

### DEFINITION OF THE INDEX AND ITS APPLICATIONS

The index measures the percentage of change, over time, in the cost of a "fixed basket" of materials and services used for road construction and bridging. This basket represents the composition of expenditures for road construction and bridging.

In addition to the system of measurement that relates to the overall components of expenses for road construction and bridging, as of the February 2010 index, a system of sub-measures is published, by building phases. The index serves mainly as a basis for linking contracts of road construction and bridging, as well as for deduction of changes in prices from the changes in the value of investments in road construction and bridging.

### SOURCES OF INDEX WEIGHTS

The index basket, whose prices have been measured as of February 2010, represents the composition of expenditures of the road construction and bridging industry for road construction and bridging projects completed in 2005-2008, after the expenditures are adjusted to the prices of January 2010, which constitutes the new base period for the updated index. The updated index is present according to the base January 2010=100.0.

### PRODUCT SAMPLE AND METHOD OF PRICE COLLECTION

Within the index framework, the prices of materials and services were calculated. Prices of materials and services are collected from a sample of wholesalers and manufacturers who provide materials and services to road and bridging contractors in all regions of the country. The prices calculated are those paid by the road and bridging contractors to the various kinds of marketers, not including VAT.

### PRICE INDICES SERIES OF INPUTS FOR ROAD CONSTRUCTION AND BRIDGING

Period	Base period	Chaining coefficient to previous index
I 1966-XII 1972	I 1966	--
I 1973-V 1981	Average 1972	1.542
VI 1981-I 1996	V 1981	82.016
II 1996	I 1996	46.839
Since II 2010	I 2010	2.262 <sup>(1)</sup>

<sup>(1)</sup> To link the indices since 1985 to pre-1985 indices, multiply them by 10.

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## PRICE INDICES OF OUTPUT AND INPUT IN AGRICULTURE

Principles of the index were detailed in Technical Series No. 58, *Price Indices in the Agricultural Activity*. The changes in the indices after updating are presented in the following publications: *Price Statistics Monthly*, No. 6, 2001 and No. 4, 2002.

(Table 13.13)

### DEFINITION OF THE INDEX AND ITS APPLICATIONS

The indices measure the influence of price changes on agricultural income from the commodities it produces and on its expenses for consumption products and services used as inputs.

These indices are mainly used for the following purposes: as deflators, i.e., they express value series in current prices as value series at fixed prices; they check the influence of price changes on the terms of trade in agriculture; they update calculations used to determine prices and subsidies for agricultural produce; they are used to calculate the value of agricultural production, etc.

The percent of change in the index is different from the percent of change in prices of agricultural output (which is derived from the account of agriculture - Chapter 19 - *Agriculture*). For the most part, changes in the price index of output in agriculture are reflected in base weight prices (base year 2000), whereas price changes in the index of the industry are reflected in current weights.

### SOURCES OF INDEX WEIGHTS

The weights of the agricultural output and input price indices reflect the relative importance of the various kinds of output and input values within the overall output and input values during the base period of the index.

The weights are based on the values of output in the base year (2000).

The prices used to calculate the price index of output in agriculture are the weighted mean of the quantities of every product marketed that year. The output indices are aggregate indices derived from the quantities and prices of the product, and from their weight in the base period.

The estimate of the input values that are included in the updated basket of the price index of agricultural inputs is based on a large

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amount of detailed data on purchases for agricultural activities, or on the production and marketing value of enterprises that supply materials, products and services to agriculture, e.g., animal feed, fertilizer, seeds, etc.

The data are derived from many sources, the principal ones being: estimates of the agriculture activity accounts, findings of the Agricultural Survey 1995, data from producers and marketers, data commissioned from various governmental and administrative organizations, the Israel Electric Corporation, the Water Authority, the Ministry of Agriculture, etc.

The weights for the price index of input in agriculture are based on data for input value in 2000.

#### **SERIES OF PRICE INDICES OF OUTPUT AND INPUT IN AGRICULTURE**

Period	Base period	Chaining Coefficient to previous index
1. Price index of agricultural output 1976/77-1986/87	Average 1975/76	..
1987-2000	Average 1986	2,896
Since 2001	Average 2000	2,861
2. Price index of input in agriculture 1976/77-1986/87	Average 1975/76	..
1987-2000	Average 1986	2,909
Since 2001	Average 2000	3,987

### **PRICE INDEX OF INPUT IN BUSES**

(Detailed descriptions of index principles appear in *Price Index of Input in Buses 1969*, Price Statistics Monthly No. 2, 1971 (Hebrew only). For updates and consequent changes, see *Price Statistics Monthly*, No. 11, 1978, No. 4, 1994, and No. 7, 2007)

(Tables 13.14-13.15)

#### **DEFINITION OF THE INDEX AND ITS APPLICATIONS**

The index measures the percentage of change, over time, in the costs of a "fixed basket" of products and services used to operate bus services.

Until January 2007, the index was calculated according to two systems: an index relating to the population at large and a sub-index

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relating only to the public sector.

As of January 2007, the index is calculated according to the following two systems: an index relating to the entire population, and a sub-index relating to concessionaire companies only.

Updates on the new basket of the index and its new weights were published in July 2007. The index was calculated retroactively as of January 2007.

The index serves as a basis for determining prices and subsidies in the bus activity. The index also serves as a current indicator of price development in the industry.

#### **SOURCES OF INDEX WEIGHTS**

The index basket, whose prices were measured as of January 2007, represents the composition of inputs of bus companies in 2004, at 2007 prices. Data on the components of the bus companies' expenses for various materials, goods, and services, were received in the Survey of Bus Companies' Expenses. This survey investigated the detailed expense structure of the companies operating buses on scheduled routes and special bus services as defined in classes 6000 and 6001 in the *Standard Industrial Classification of All Economic Activities 1993, Second Edition*, Technical publication No. 63.

#### **SAMPLE OF GOODS AND SERVICES AND THE PRICES MEASURED**

The index measures the prices of various goods and services collected in the sample. The prices relate to detailed definitions of goods and services, as well as the terms of transaction and payment, at which they are sold to the bus companies.

#### **PRICE INDICES SERIES OF INPUT IN BUSES**

Period	Base period	Chaining coefficient to previous index
I-III 1970-X-XII 1977	Average 1969	..
IV-VI 1978-X-XII 1993	I-III 1978	10.347 <sup>(1)</sup>
I-III 1994- II 2007	X-XII 1993	56.578 <sup>(2)</sup>
Since II 2007	II 2007	2.41 <sup>(3)</sup>

<sup>(1)</sup> Excluding wages of cooperative members.

<sup>(2)</sup> To the public sector - excluding housing services.

<sup>(3)</sup> For the total population.

## PRICE INDEX OF MANUFACTURING OUTPUT FOR DOMESTIC DESTINATIONS

(See methodological details in Technical Series No. 22. The changes in the indices after updating are presented in the following publications: "Update of the Wholesale Price Index of Industrial Output for Domestic Destinations" in *Price Statistics Monthly*, No. 1, in 1969, 1972, 1978, 1989, 1995, 2006 and 2013.)

(Table 13.16)

### DEFINITION OF THE INDEX AND ITS APPLICATIONS

The index measures changes in prices obtained by industrial manufacturers for products and services included in manufacturing output, during the first stage of marketing in Israel.

The main use of the index is to deduct the value of manufacturing output series, calculated at current prices, by conversion into a series of values at constant prices.

### SOURCES OF INDEX WEIGHTS

The output basket of the present index, whose prices have been measured since January 2013, represents the composition of manufacturing output for the local market during 2011/12. Data on the value of marketed output by industry (divisions and groups) were derived from manufacturing indices for 2011/12. These data, combined with the estimated output of self-employed persons, served as the basis for calculating the weights of the divisions and the groups.

To adjust the weights of the groups to the "Classification of Products", and to determine the weights of products and categories of products in the index, a special survey was conducted on the distribution of the marketed manufacturing by products. The survey data relate to the base period 2011.

In order to compute the weights, output value data were evaluated at 2012 prices

(the base period).

As of 2013, the index is prepared in accordance with the *Standard Industrial Classification of All Economic Activities 2011*, Technical Publication No. 80, the Central Bureau of Statistics.

### SAMPLE OF COMMODITIES AND METHOD OF PRICE COLLECTION

The index measures about 1,500 types of products and services. Prices of the various products and services are collected from a sample of about 800 establishments. The sample includes most of the large establishments which make a significant contribution to the output value of the activity, as well as medium and small establishments which are representative of their group.

The prices measured are those received by the manufacturer on the first transaction, generally at the establishment gate. These are market prices which include VAT and purchase tax but not subsidies.

### WHOLESALE PRICE INDICES SERIES OF MANUFACTURING OUTPUT

Period	Base period	Chaining coefficient to previous index
I 1964-XII 1968	Average 1963	..
I 1969-XII 1977	Average 1968	1.138 <sup>(1)</sup>
I 1978-XII 1988	Average 1977	6.105
I 1989-XII 1994	Average 1988	29.101 <sup>(2)</sup>
Since 1995	Average 1994	2.015 <sup>(2)</sup>
Since 2006	Average 2005	1.706 <sup>(2)</sup>
Since 2006	Average 2005	1.791 <sup>(3)</sup>
Since 2013	Average 2012	1.255 <sup>(2)</sup>
Since 2013	Average 2012	1.312 <sup>(3)</sup>

<sup>(1)</sup> Excluding fuel, "Diamonds" and "Printing and Publishing".

<sup>(2)</sup> Excluding fuel and "Diamonds".

<sup>(3)</sup> General index (including fuel).

## SELECTED PUBLICATIONS

"Da" - *Consumer Price Index (explanation Bulletin) (Hebrew only)*  
*Price Indices - Multi-Annual Series, 1997-2000 (Hebrew only)*

### *SPECIAL PUBLICATIONS*

1153 Household Expenditure Survey 1999, General Summaries

### *TECHNICAL SERIES*

58 Input and Output Price Indices in the Agricultural Branch, 1986  
60 Consumer Price Index, 1992  
66 Price Indices of Inputs in Residential Building, 1995

### *CURRENT BRIEFINGS IN STATISTICS*

5, 1996 Update of Index of Input in Road Construction (Hebrew only)  
39, 1998 Survey of Residential Building Cost (for building completed in 1995)

### *PUBLICATIONS APPEARING ONLY ON THE CBS WEBSITE*

Price Index of Inputs in Residential Building, January 2004 (in the *Price Statistics Monthly*).

Updated Price Indices for Building States (in the *Price Statistics Monthly*).

Price Index of Input in Buses, 2007 (in the *Price Statistics Monthly*).