

# Retail price index



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# Abstract

## **1 General information on the statistics** **page 3**

- *Name of the statistics:* retail price index
- *Survey date/period:* a minimum of one week around the middle of the month
- *Periodicity and period for which a time series is available without any break:* monthly from January 1991
- *Survey population and principle of allocating the survey units:* representative survey among providers of goods
- *Legal bases:* Price Statistics Law, Federal Statistics Law

## **2 Purpose and goals of the statistics** **page 3**

- *Survey content:* selling prices inclusive and exclusive of VAT and other excise duties
- *Purpose of the statistics:* calculation of retail price indices to be used as a compensation measure (contract adjustments) and to deflate nominal values of economic statistics
- *Major users of the statistics:* private individuals, national accounts, retail trade statistics

## **3 Survey methodology** **page 4**

- *Type of data collection:* price collectors in the reference municipalities, analysis of catalogues, price systems and offers on the internet
- *Sampling procedure:* multi-stage sampling (reference municipalities, reporting units, cases of selling goods to households); the prices of about 280,000 price representatives are recorded in about 30,000 reporting units for some 530 items
- *Data collection tools and reporting channel:* to a larger extent decentralised price collection, calculation of indices of the Länder by the statistical offices of the Länder, calculation of the overall index using Länder weights and the relevant weighting pattern

## **4 Accuracy** **page 5**

- *Overall qualitative assessment of accuracy:* index value with one digit after the decimal point
- *Sampling errors:* quantification not possible because no random sample
- *Non-sampling errors:* changes of products or reporting units between the revision dates and the resulting quality adjustments

## **5 Timeliness and punctuality** **page 6**

- *Timeliness of final results:* around the middle of the following month
- *Punctuality:* All release deadlines are met.

## **6 Comparability over time and space** **page 6**

- *Qualitative assessment of comparability:* ensured within a given base period (usually 5 years), to a limited extent over several base periods
- *Changes affecting comparability over time:* introduction of new weighting patterns

## **7 Connection with other surveys** **page 6**

- *Input for other statistics:* national accounts
- *Differences regarding other comparable statistics or results:* The retail price index does not include services and the underlying weights are based on the pattern of retail sales.

## **8 Other information sources** **page 6**

- *Publication channels, order address:*  
[www.s-f-g.com](http://www.s-f-g.com)  
[www.destatis.de](http://www.destatis.de) › Publikationen  
[www.destatis.de](http://www.destatis.de) › Genesis-Online
- *Contact information:* [www.destatis.de/contact/](http://www.destatis.de/contact/)

## 1 General information on the statistics

### 1.1 Name of the statistics (according to EVAS)

Retail price index, EVAS No.: 61131

### 1.2 Reference period

The reference period is the reference month.

### 1.3 Survey date

A minimum of one week around the middle of the month.

### 1.4 Periodicity and period for which a time series is available without any break

Monthly from January 1991.

### 1.5 Regional coverage

Germany.

### 1.6 Survey population and principle of allocating the survey units

The survey population of retail price statistics comprises all providers of goods in the economic territory (domestic concept) who offer products that are part of the consumption expenditure made by households in retail trade. Retail price statistics are based on a representative survey. The Classification of Receipts and Expenditure of Households (SEA 98) serves as a basis for specifying the survey units to be included at the product level. Using appropriate statistics, this product level is transposed into an institutionalised version of the Classification of Economic Activities, Edition 2008 (WZ 2008) for retail trade. Hence, the retail price index is an index of selling prices.

### 1.7 Survey units

The units to be surveyed (reporting units) are the local units of all providers of goods (e.g. retail shops, chain stores, etc.). Furthermore, generally accessible sources (internet, mail order catalogues, etc.) are used for price collection.

### 1.8 Legal bases

#### 1.8.1 EU law

There is no EU legal basis.

#### 1.8.2 Federal law

Price Statistics Law in the amended version published in the Federal Law Gazette, Part III, Subsection No. 720-9, last amended by Article 20 of the Law of 7 September 2007 (Federal Law Gazette I, p. 2246); Ordinance regarding the Implementation of the Price Statistics Law of 29 May 1959 (Federal Bulletin No. 104, p. 1), last amended by Article 5 of the Ordinance of 20 November 1996 (Federal Law Gazette I, p. 1804), in conjunction with the Federal Statistics Law (BStatG) of 22 January 1987 (Federal Law Gazette I, pp. 462, 565), last amended by Article 3 of the Law of 7 September 2007 (Federal Law Gazette I, p. 2246).

#### 1.8.3 Land law

No legal basis is provided by Land law.

#### 1.8.4 Other bases

There is no other legal basis.

### 1.9 Confidentiality and data protection

The individual data collected are generally kept secret according to Article 16 of the Federal Statistics Law. Only in a small number of exceptional cases explicitly regulated by law may individual data be passed on. The names and addresses of the respondents are never passed on to third parties. Pursuant to Article 16, para. 6 of the Federal Statistics Law, individual data may be passed on to institutions of higher education or other institutions entrusted with independent scientific research for the purpose of carrying out scientific projects, if such data have been anonymised in a way that identifying the relevant respondents or parties concerned is possible only with unreasonable efforts in terms of time, cost and manpower. Persons receiving individual data are also obliged to adhere to the principle of confidentiality.

## 2 Purpose and goals of the statistics

### 2.1 Survey content

The statistics record selling prices inclusive and exclusive of VAT and other excise duties (e.g. mineral oil tax, tobacco tax) for goods selected on a representative basis. The survey programme comprises a detailed description of the goods and other characteristics which have a determining effect on prices (e.g. type of shop, warranty, mode of shipment, price reductions, type of packaging, unit of quantity, and terms of payment).

## 2.2 Purpose of the statistics

The retail prices recorded are used to calculate retail price indices inclusive and exclusive of VAT.

Retail price indices inclusive of VAT are mainly used for the following two purposes:

As a compensation measure, they are intended for the adjustment of regular payments based on stable-value clauses in civil law contracts (e.g. in accordance with the Price Clause Act (PrKG) of 7 September 2007 (Federal Law Gazette I, pp 2246, 2247) and Article 557b of the Civil Code (BGB) concerning "index-linked rents".

Likewise, they are used in national accounts to deflate nominal values of economic statistics.

The new retail price indices exclusive of VAT are used to deflate nominal sales in domestic trade statistics.

## 2.3 Major users of the statistics

In accordance with the major purposes of the statistics, the main groups of users are the following:

A compensation measure is above all required by tenants and landlords, payers and recipients of company pensions or life annuities and by other persons with payment obligations or recipients of regular payments.

The retail price index and some of its elements are used as a basis for deflating economic aggregates, for instance in national accounting and retail trade statistics.

## 2.4 User involvement

Above all, the main users are involved through specialised committee meetings at intervals of several years. In the case of fundamental changes, however, the groups of users concerned are given information or are asked for their opinion or consent in between the above meetings.

# 3 Survey methodology

## 3.1 Type of data collection

The data of the CPI are used. Usually, price collectors collect the relevant prices in selected reference municipalities. In addition, catalogues, price systems, schedules of charges, laws and administrative rules, offers on the internet and (to a smaller extent) also postal surveys are evaluated for this purpose.

## 3.2 Sampling procedure

### 3.2.1 Sampling design

The universe of retail price statistics comprises all cases of selling goods to households in the economic territory. Sampling is based on a multi-stage procedure. The technique of purposive sampling is used like in all other areas of price statistics. As a first step, the reference municipalities and secondly, the reporting units are selected. At five-year intervals, this selection is systematically revised when a new price base year is adopted. As a third step, specific goods are selected for price collection. However, adjustments are made to the above selection in between the revision dates of CPI, if, for instance, certain products are no longer available, reporting units cease to exist, or if new products or reporting units with a rapidly increasing importance for consumption enter the market.

### 3.2.2 Sample size, sampling fraction and sampling unit

Currently, the basket of goods used for retail price statistics comprises a total of about 530 price series. For these series, the prices of a total of about 280 000 representatively selected cases of sales (price representatives) are collected in approximately 30 000 reporting units on a monthly basis.

### 3.2.3 Sample stratification

The sample is stratified by Länder and according to the about 530 individual items of the basket of goods.

### 3.2.4 Expansion

No expansion is made. The result is a weighted average of the price trends observed for the goods covered.

## 3.3 Seasonal adjustment procedure

None.

## 3.4 Data collection tools and reporting channel

Regarding about two thirds of the total consumption expenditure, prices are collected in a decentralised manner. Price collection is organised by the statistical offices of the Länder and, partly, staff of the reference municipalities are engaged for this purpose. In general, the price collectors visit the relevant reporting units every month. As regards approximately

one third of the consumption expenditure, however, prices are collected in a centralised manner by staff of the Federal Statistical Office. To a large extent, generally accessible sources are used for this purpose, such as catalogues, the internet, etc.

Based on the prices collected and after potentially necessary conversions (e.g. adjustments for quality), the statistical offices of the Länder calculate elementary indices (by Dutot formula) in a breakdown by types of shops for about 530 individual items. These index numbers (and individual data for verification purposes) are transmitted to the Federal Statistical Office. Based on the index numbers, the Office then compiles the overall index for the Federal Republic of Germany, using the Länder weights and the weighting pattern for retail trade.

### **3.5 Burden on the respondents**

The price collectors collect the relevant prices (and associated product characteristics) on their own. Hence the reporting units are largely not burdened (though, in the case of revisions or product changes, a certain burden cannot always be avoided).

### **3.6 Documentation of the questionnaire**

Questionnaires in the narrow sense are not used for the compilation of retail price statistics. The price collectors use survey forms - partly paper and partly electronic forms (on the laptop) - to record prices and also information on price-determining characteristics and to transmit the relevant information to the statistical offices. Usually, however, these survey forms are not given to respondents.

## **4 Accuracy**

### **4.1 Overall qualitative assessment of accuracy**

The retail price indices are calculated as index values with one digit after the decimal point. This corresponds to the level of accuracy that can be achieved. An indirect measurement of accuracy can be made based on the revision differences. At the time of revision, the results are recalculated for a backward period of about three years, using all the most recent information available (e.g. on new consumption patterns or on retail sales based on WZ 2008). For this purpose, however, the revision differences must be analysed in more detail and attributed to different causes (including methodological changes such as an extension of coverage). The results are published in the *Wirtschaft und Statistik* periodical (see paragraph 8).

### **4.2 Sampling errors**

A quantification of sampling errors is not possible because retail price statistics are not based on a random sample.

#### **4.2.1 Standard error**

None.

#### **4.2.2 Biases due to the data expansion procedure**

None, because no expansion procedure is carried out.

### **4.3 Non-sampling errors**

#### **4.3.1 Errors due to coverage**

None.

#### **4.3.2 Unit non-response**

None due to price recording by price collectors.

#### **4.3.3 Item non-response**

None due to price recording by price collectors.

#### **4.3.4 Imputation methods**

The prices of products that are temporarily not on offer are updated using the prices of comparable products (e.g. for seasonal articles, during company holidays).

#### **4.3.5 More detailed analyses of the systematic error**

More detailed analyses of the systematic error are not made.

### **4.4 Continuous revisions**

At five-year intervals, the results of retail price statistics are subjected to a basic revision. On this occasion, modified expenditure weights resulting from changes in the patterns of consumption or retail sales are included in the index calculation. At the time of revision, methodological changes which are due, for instance, to new requirements or rules are included in the index compilation, too.

#### 4.4.1 Extent of revision

The extent to which the results calculated so far have to be revised due to the inclusion of changed consumption habits and retail sales in a new weighting pattern is mostly smaller than 0.1 percentage points (measured by the price change on the comparable period of a year earlier).

#### 4.4.2 Reasons for revision

Availability of time series without structural breaks due to considering changed weighting structures and implementing methodological changes.

### 4.5 Extraordinary sources of error

Extraordinary sources of error encompass unexpected circumstances which considerably affect the use of preliminary or final results and therefore have to be pointed out in a special form. This includes, for instance, particularly important reports which are inaccurate or delayed and (natural) events which lead to a strong modification of the survey object directly after the survey so that the informative value of the statistics deteriorates. Such events have not been observed in this case.

## 5 Timeliness and punctuality

### 5.1 Timeliness of preliminary results

No preliminary results are calculated for the retail price index.

### 5.2 Timeliness of final results

Final results for the Federation are published around the middle of the month following the reference month.

### 5.3 Punctuality

All publication deadlines are met.

## 6 Comparability over time and space

### 6.1 Qualitative assessment of comparability

Comparability over time is fully ensured as regards the results for the period between two revision dates.

### 6.2 Changes affecting comparability over time

Introduction of new weighting patterns (adjustment to changes in the consumption patterns of households and in retail sales), implementation of new methods. The latter only occurs during large-scale revisions, which are undertaken every five years.

## 7 Connection with other surveys

### 7.1 Input for other statistics

Deflator for nominal values, e.g. in national accounts (cf. paragraphs 2.2 and 2.3), retail sales.

### 7.2 Differences regarding other comparable statistics or results

The retail price index is derived from the same basic data as the consumer price index for Germany (CPI). Unlike the national CPI, however, the retail price index does not include services. Furthermore, the weighting is based on retail sales.

## 8 Other information sources

### 8.1 Publication channels, order address

The results of retail price statistics are issued in both printed and electronic form.

Printed publications:

The monthly rapid report of Fachserie 17, Reihe 7 Preise - Verbraucherpreisindizes für Deutschland - contains price indices and rates of change for the two divisions and the groups of retail trade in the WZ 2008, as well as consumer price index results. The monthly report of Fachserie 17, Reihe 7 includes price indices for retail trade as a whole and for selected branches of economic activity inclusive and exclusive of VAT in accordance with the WZ 2008 and also detailed results on the consumer price index. After each revision (changeover to a new price base year), the above Fachserie contains an additional revision report which presents the results recalculated for a longer period. The Fachserie may be obtained from our distribution partner HGV Hanseatische Gesellschaft für Verlagsservice mbH, Servicecenter Fachverlage,

Postfach 11 64, D-72125 Kusterdingen, Germany; tel: +49 (0) 7071 / 93 53 50, fax: +49 (0) 7071 / 93 53 35 or through the Publication Service of the Federal Statistical Office ([www.destatis.de](http://www.destatis.de) › Publikationen).

Electronic publications:

Fachserie 17, Reihe 7 can be obtained as a PDF file free of charge at [www.destatis.de](http://www.destatis.de) › Publikationen › Publikationsservice.

The annual reports (product code: 5611104) contain consumer price indices for the 12 Divisions of the Classification of Income and Expenditure of Households (SEA)/Classification of Individual Consumption by Purpose (COICOP) and, in addition, results for three and four-digit items of SEA/COICOP and for selected special groupings, and also more detailed results for the retail price index - each from 1991. Price indices for the German Länder and the EU Member States are included from reference year 1995. Furthermore, a table encompasses consumer price indices for special types of households and for the territorial breakdown by "former territory of the Federal Republic" and "New Länder and Berlin-East".

Through the database system GENESIS-Online ([www.destatis.de](http://www.destatis.de) › Genesis-Online, 6 › 61 › 611 › 61131 › Tabellen), detailed results of retail price statistics can directly be loaded in various file formats (.xls, .html und .csv).

## 8.2 Contact information

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## 8.3 Further publications

Articles on the retail price index are issued in the cross-section publication *Wirtschaft und Statistik* ([www.destatis.de](http://www.destatis.de) › Publikationen › *Wirtschaft und Statistik*). An example is the following:

Elbel, Günther/ Preißmann, Jürgen: Neuberechnung des Index der Einzelhandelspreise auf Basis 2005 (Recalculation of the retail price index on base 2005), *Wirtschaft und Statistik* 05/2003, p. 432 ff.

More information on the retail price index can be found at [www.destatis.de](http://www.destatis.de) › Prices › Consumer prices.