

Consumer price indices for transport, postal and telecommunication services



Periodicity: irregular
Published in 05.10.2012

For further information about this publication please contact:
Phone: +49 (0) 611 / 75 2629; Fax: +49 (0) 3018 10644 4591;
www.destatis.de/contact

Abstract

1 General information on the statistics page 3

- *Name of the statistics*: consumer price indices for transport, postal and telecommunication services
- *Survey date*: generally in the middle of the month, air transport (exactly to the day)
- *Periodicity and period for which a time series is available without any break*: monthly from January 2005.
- *Survey population, principle of allocating the survey units*: representative survey among providers of air transport, rail transport, postal and telecommunication services
- *Legal bases*: Price Statistics Law, Federal Statistics Law, EU regulation concerning short-term statistics, EC regulation concerning the HICP
- *Confidentiality and data protection*: confidentiality is ensured pursuant to Art. 16 of the Federal Statistics Law.

2 Purpose and goals of the statistics page 4

- *Survey content*: prices of transport, postal and telecommunication services including VAT, price-forming factors.
- *Purpose of the statistics*: calculation of consumer price indices to be used as a measure of inflation, deflation of nominal aggregates of economic statistics, public information
- *Major users of the statistics*: European Commission, central banks, federal ministries, economic research institutes, science and research, political community, private individuals, statistics (national accounts), economic associations, enterprises.
- *User involvement*: conversion to a new base year, further development of price indices.

3 Survey methodology page 5

- *Type of data collection*: price collection via the internet/database research, analysis of price systems and price lists, written or online enquiry with mandatory response.
- *Sampling procedure*: purposive selection
- *Data collection tools and reporting channel*: analysis of generally accessible sources.

4 Accuracy page 5

- *Overall qualitative assessment of accuracy*: index number with one decimal place; results are final when published for the first time
- *Sampling errors*: quantification not possible because no random sample.
- *Non-sampling errors*: Incorrect or inexact data are corrected in the context of plausibility checks. Extrapolations are made for non-response, using suitable indicators.

5 Timeliness and punctuality page 6

- *Timeliness of final results*: 1 week of the month following the reference month.
- *Punctuality*: All publication deadlines are met.

6 Comparability over time and space page 6

- *Qualitative assessment of comparability*: Comparability is ensured within the same base period (five years as a rule), but is limited over several base periods.
- *Changes affecting comparability over time*: changes in market structures

7 Connection with other surveys page 7

- *Input for other statistics*: national accounts
- *Differences regarding other comparable statistics or results*: methodological differences regarding producer price indices for comparable services

8 Other information sources page 7

- *Publication channels, order address*:
www.destatis.de › Publikationen › Thematische Veröffentlichungen › Preise
www.destatis.de › Zahlen & Fakten › Datenbanken › Genesis-Online
- *Contact information*: www.destatis.de/contact (keyword: Dienstleistungspreise)

1 General information on the statistics

1.1 Name of the statistics (according to EVAS)

Consumer price indices for transport, postal and telecommunication services, EVAS No. 61351.

1.2 Reference period

The reference period is the reference month.

1.3 Survey date

Generally in the middle of the month, air transport (exactly to the day).

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

Monthly from January 2005.

1.5 Regional coverage

Territory of the Federal Republic of Germany.

1.6 Survey population and principle of allocating the survey units

The survey population of consumer price statistics, specifically in air passenger transport, includes the services offered by German and foreign airlines and referring to flights from airports in Germany. What is covered is air fares for private passengers in regular air transport (also low cost carriers) and the single seat prices of charter airlines. Flight relations and weights were fixed on the basis of air passenger transport statistics (physical data), internal structural data of major airlines as well as model calculations of the turnover volume for the individual flight relations.

The survey population of consumer price statistics, specifically in rail passenger transport, includes the rail transport services demanded by households (excluding short-distance transport in transport associations). Results are shown for tickets of general transport as well as of commuters and pupils transport (short-distance and long-distance transport); in addition, the price trend for baggage transport is represented. Rail transport relations, other services demanded and their weights according to turnover were fixed on the basis of detailed internal structural data of Deutsche Bahn AG.

The survey population of consumer price statistics, subindex of postal services, includes all providers of services within Germany to the extent that the services offered by them are demanded by households as part of household consumption expenditure on postal and parcel services.

The survey population of consumer price statistics, specifically telecommunication services, includes the services demanded by households and regarding fixed-line network/internet and mobile communications. What is covered is monthly rentals, telephone access charges, connection charges in various forms (e. g.: fixed-line network/internet: full packages, analogue, ISDN, DSL access, flat rates, call by call connections, direct, pre-selection, internet flat rates, internet by call; mobile communications: fixed contracts, prepaid cards, SMS, WAP). The priced items and the weights were fixed on the basis of data (turnover data, numbers of customers) of major telecommunication service providers.

1.7 Survey units

Survey units are legally independent enterprises.

1.8 Legal bases

1.8.1 EU law

As a matter of fact, Council Regulation (EC) No 2494/95 of 23 October 1995 concerning harmonized indices of consumer prices and the related supplementary Commission and Council regulations and guidelines only apply to the Harmonised Index of Consumer Prices (HICP). Since, however, the German Consumer Price Index (CPI), the HICP, the index of retail prices and the price index for the hotel and restaurant industry are derived from the same price survey, the above regulations and guidelines are of indirect relevance to these indices, too.

1.8.2 Federal law

Law on Price Statistics as published in the adjusted version in Federal Law Gazette part III, number 720-9, last amended by Article 20 of the Law of 7 September 2007 (Federal Law Gazette I, p. 2246), Ordinance Implementing the Law on Price Statistics 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 Land law as a legal basis.

1.8.4 Other bases

No other legal bases.

1.9 Confidentiality and data protection

The individual data collected are generally kept secret in accordance with Article 16 of the Federal Statistics Law (BStatG). 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 (BStatG), 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 would require an unreasonable effort 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

Air passenger transport:

Selling prices of air tickets including VAT are collected for representatively selected air routes. For the selected air routes, the main air fares (including the major price-forming factors such as fare regulations) are collected. Where possible, the relative market importance of the various air fares is taken into account. Not only the selling prices are included in the price index, but also surcharges such as kerosene surcharge, security charges, travel agent commission, etc.

Rail passenger transport:

Selling prices of tickets including VAT are collected for representatively selected routes (including the major price-forming factors such as fare regulations, restricting tickets to specific trains, etc.). The services monitored comprise short-distance and long-distance transport as well as baggage transport. Not only selling prices of normal tickets are included in the index calculation, but also prices of season tickets, special weekend tickets (*Schönes-Wochenende-Ticket*), flat-rate fares (*Dauer-Spezial*) and *BahnCards* as well as surcharges such as seat reservation, night train, etc. Since the regular revision of the consumer price index to rebase it to base year 2005, the price development of the regional tickets (*Länder-Tickets*) has also been included in the index calculation.

Postal services:

Prices including VAT - to the extent that the enterprises are subject to pay VAT on their services - regarding representatively selected letter mail and parcel services (including the major price-forming factors) are collected and included in the price index.

Telecommunication services:

Prices including VAT of representatively selected telecommunication services for fixed-line network/internet and mobile communications (including the major price-forming factors) are collected and included in the price index. The survey programme also includes the detailed service specifications.

2.2 Purpose of the statistics

The collected prices are used to calculate the price indices for transport, postal and telecommunication services. They are mainly used for three different purposes:

- As a measure of inflation to monitor price stability in the overall economy (together with other price indices).
- To deflate nominal aggregates of economic statistics.
- To inform the general public about the costs of transport, postal and telecommunication services.

2.3 Major users of the statistics

The major users are structured according to the above purposes of the statistics:

- Parties particularly interested in an inflation measure are the European Commission, the federal ministries, the central banks, economic research institutes, the macroeconomic departments of large enterprises (e. g. commercial banks), the scientific and research community, trade unions and employers as well as the media.
- The consumer price index or parts thereof are used as a basis for deflating economic aggregates for example by national accounts.
- Enterprises, government agencies and households are interested in the price indices.

2.4 User involvement

Major user groups are involved through consultation especially in the context of putting the price indices on a new base year (generally every 5 years); this is done through surveys and consultations. In addition to that regular rebasing, adjustments are continuously performed to take account of changing consumption patterns of consumers of those services. Involvement refers in particular to selecting the range of services for which prices are to be collected regularly.

3 Survey methodology

3.1 Type of data collection

The data are collected centrally by the Federal Statistical Office, using special software, price systems, the internet and, where required, written and oral surveys. The continuous index calculation involves manifold contacts with the service providers, especially regarding the introduction of new services and the analysis of causes of current price developments.

3.2 Sampling procedure

3.2.1 Sampling design

The population of the consumer price statistics consists of all sales of goods and services to households in the economic territory. The sample is set up using the method of purposive sampling used for all price statistics. For the consumer price indices for transport, postal and telecommunication services, the service providers relevant for households are determined in a first step. In a second step, the concrete services are selected for price collection. In the weighting pattern, the demanded services are weighted using the turnover. The selection of the relevant providers of transport, postal and telecommunication services and the relevant services is systematically revised every five years. In case of strong market changes, adjustments are performed also between regular revisions.

3.2.2 Sample size, sampling fraction and sampling unit

The basket of services for the price index for air passenger transport currently comprises some 150 individual series (priced items) of 14 enterprises for which prices are observed monthly.

The basket of services for the price index for rail passenger transport currently comprises over 3,000 individual series (priced items) for which prices are observed monthly.

The basket of services for the price index for postal services currently comprises some 140 items (priced items) for which prices are observed monthly by about 15 enterprises.

The basket of services for the price index for telecommunication services currently comprises some 2,000 items (priced items) for which prices are observed monthly by about 30 enterprises.

3.2.3 Sample stratification

None.

3.2.4 Expansion

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

3.3 Seasonal adjustment procedure

None.

3.4 Data collection tools and reporting channel

The prices are collected centrally by staff members of the Federal Statistical Office, based mainly on generally accessible sources (internet, price databases, price lists, etc.).

3.5 Burden on the respondents

The prices (including the product qualities) are obtained mainly from generally accessible sources. Placing burdens on reporting units is avoided where possible, although sometimes it is inevitable when revisions must be performed, when fares change and when new technology is introduced.

3.6 Documentation of the questionnaire

There are no questionnaires in the narrow sense for the consumer price indices for transport, postal and telecommunication services.

4 Accuracy

4.1 Overall qualitative assessment of accuracy

The price indices for transport, postal and telecommunication services are calculated as index numbers with one decimal place. In our opinion, that is the accuracy that can be achieved. The figures are final for the reference month. When changing over to a more recent base year, revision differences occur as a result of using new calculation bases (changes in market structures and changes in household behaviour regarding the demand for transport, postal and telecommunication services).

4.2 Sampling errors

Quantifying sampling errors is not possible because the consumer price indices for transport, postal and telecommunication services are not based on a random sample.

4.2.1 Standard error

None.

4.2.2 Biases due to the data expansion procedure

Not applicable because an expansion procedure is not applied.

4.3 Non-sampling errors

4.3.1 Errors due to coverage

Errors may occur due to the introduction of new or modified services offered and the assessment in terms of price of quality changes in case of inevitable changes of fares or reporting units between regular revisions.

4.3.2 Unit non-response

In case of non-response (e.g. due to business closedown or restructuring, etc.) the prices are extrapolated using suitable extrapolation factors (e.g. average price trend of the relevant item or of a higher aggregate). At the same time, it is attempted to recruit substitute reporting units as early as possible.

4.3.3 Item non-response

Incorrect or inexact information in the service specifications are generally corrected during data capture by the staff of the Federal Statistical Office or during individual data checks for plausibility through direct queries with the enterprises within the reference month.

4.3.4 Imputation methods

See 4.3.2

4.3.5 More detailed analyses of the systematic error

More detailed analyses of the systematic error are not performed.

4.4 Continuous revisions

In case of fundamental changes in market conditions, continuous revisions are performed also between regular revisions.

4.4.1 Extent of revision

At five-year intervals, price statistics are generally subjected to a fundamental recalculation. Changes in weights caused by changed consumer behaviour are included in the index calculation.

4.4.2 Reasons for revision

Provisions in EU regulations.

4.5 Extraordinary sources of error

Extraordinary sources of error are events occurring unexpectedly and affecting considerably the use of provisional or final results and therefore have to be pointed out in a special form. Such phenomena comprise, for instance, particularly important reports which are inaccurate or delayed and (natural) phenomena which lead to a strong modification of the survey object directly after the survey so that the informative value of the statistics is deteriorated. Such events did not occur.

5 Timeliness and punctuality

5.1 Timeliness of preliminary results

For the consumer price indices for transport, postal and telecommunication services no preliminary results are calculated.

5.2 Timeliness of final results

The results are published in the 1st week of the month following the reference month at the latest.

5.3 Punctuality

All publication deadlines are met.

6 Comparability over time and space

6.1 Qualitative assessment of comparability

The Laspeyres concept applied in consumer price statistics is based on the principle of all calculation bases being constant (sample of reporting units, sample of price representatives, weighting pattern). In theory, this ensures the comparability over time of the calculated indices within a base period. The calculation bases mentioned are kept constant

for a base period, which generally comprises five years, to the extent that this is justified in those sometimes highly dynamic markets. Major changes in market structures are taken into account also within a base period. Products no longer sold on the market are replaced by their successor products on the market. Price indices of different base periods are frequently chain-linked to form long index series although, strictly speaking, they are not comparable.

6.2 Changes affecting comparability over time

In a subject-matter breakdown, the comparability between the consumer price indices for transport, postal and telecommunication services and the price indices of previous base years is limited for the period prior to January 2005 because of changes in market structures, in particular the market liberalisation.

7 Connection with other surveys

7.1 Input for other statistics

The consumer price indices for transport, postal and telecommunication services are subindices of German consumer price statistics and of the harmonised index of consumer prices for Germany. At the national level, the indices are used in national accounting to deflate economic aggregates.

7.2 Differences regarding other comparable statistics or results

The consumer price indices for transport, postal and telecommunication services form part of the system of German price statistics. As regards the production stage, producer price indices for business services and producer price indices for transport and logistics services as well as producer price indices for industrial products, price indices for agricultural and forestry products and construction price indices are calculated. At the distribution stage, the system of price statistics contains indices of wholesale prices and of retail prices. Price trends in transactions with foreign markets are shown by import and export price indices.

In contrast to the producer price index, the calculation of the consumer price index includes VAT. Also, the consumer price index is calculated only at the stage of the final consumption of households. While the “business to consumer” concept is applied to consumer prices, the “business to all” concept is used for the producer price index.

8 Other information sources

8.1 Publication channels, order address

The results of the consumer price indices for transport, postal and telecommunication services are offered in an electronic form only.

At www.destatis.de › Publikationen › Thematische Veröffentlichungen › Preise, *Fachserie 17, Reihe 9.1* can be obtained free of charge as an Excel and/or a PDF file.

Through the database system GENESIS-Online (www.destatis.de › Zahlen & Fakten › Datenbanken › Genesis-Online › 61 › 613 › 61351 › Tabellen), detailed results of the consumer price indices for transport, postal and telecommunication services can directly be loaded in various file formats (.xls, .html and .csv).

8.2 Contact information

Federal Statistical Office
Gustav-Stresemann-Ring 11
65189 Wiesbaden
Germany

tel: +49 (0) 611 / 75 26 29
fax: +49 (0) 3018 10 644 45 91
www.destatis.de/contact (keyword: Dienstleistungspreise)

Contacts at the Federal Statistical Office:

Consumer price indices for transport and
telecommunication services:
Consumer price indices for postal services:

Andreas Martin
Anne Selbach-Schneider

tel. +49 (0) 611 / 75 26 29
tel. +49 (0) 611 / 75 38 93

8.3 Further publications

Papers on consumer price indices for transport, postal and telecommunication services statistics are contained in the cross-section publication *Wirtschaft und Statistik* (www.destatis.de › Publikationen › Wirtschaft und Statistik), e.g.:

Martin, Andreas: *Neue Erzeugerpreisindizes für Nachrichtenübermittlung*, 8/2008, p. 603.

Beuerlein, Irmtraud: *Neuer Preisindex für die Internet- Nutzung*, 3/2001, pp. 176 ff.

Further information on the Consumer price statistic can be found at www.destatis.de › Facts & Figures › Prices.