

## **Quality description: Unit value and volume indexes of the foreign trade of goods (1997-2012)**

### **1. Relevance of statistics**

#### **1.1 Content and use of statistics**

The unit value and volume indexes of foreign trade present the monthly and cumulative statistics on the development of prices, terms of trade, and quantities at export and import.

The indexes describing the price and quantity development constitute an important instrument for the decision makers as well as planners and researchers in the public and private sectors, both at the national level and within the operations of the EU and several international organizations.

#### **1.2 Central concepts and classifications**

The formulas applied to calculate the indexes of foreign trade are the Laspeyres formula for unit value indexes and the Paasche formula for volume indexes. The indexes are calculated as chain indexes using always the year preceding the calculating year as the year of comparison.

In practice, the following formula is applied to calculate the unit value indexes:

$$P(L) = \frac{\sum w(0) (p(n)/p(0))}{\sum w(0)}$$
, where  $p$  = the unit value of the heading and  $w$  = the weighting coefficient of the heading

The volume indexes are calculated by means of the unit value indexes. To calculate the monthly volume indexes, the monthly numerical value is deflated by the respective unit value index and the value thus obtained is compared with the average monthly value of the preceding year. The cumulative volume indexes are calculated correspondingly with the aid of cumulative numerical values, through applying cumulative unit value indexes as deflators.

The points of the terms of trade are calculated by using the formula: (unit value index, exports / unit value index, imports) x 100.

Both monthly and cumulative unit value and volume indexes are chained by multiplying the unchained indexes with the corresponding chained annual index of the preceding year.

The subheadings of the EU Combined Nomenclature CN are used as index headings. To calculate monthly and cumulative unit value indexes, the statistical value of the index headings per quantity unit as indicated by the CN nomenclature is used as the price quotation. Both for monthly and cumulative unit value indexes, the price quotations of the entire (preceding) year are used as the price quotations of the year of comparison. The weighting coefficients of the index headings are obtained from the value shares of the year of comparison of the index headings. The weighting coefficients are raised by the commodity categories so that the total of the weighting coefficients of the index headings belonging to a particular commodity category corresponds to the value share of the commodity category during the year of comparison. Altogether, the unit value index of export covers almost 500 and the unit value index of import almost 700 CN subheadings.

The unit value and volume indexes of foreign trade are calculated and published in accordance with the Classification of Products by Activities CPA and the main use of goods (Main Industrial Groupings MIG). MIG classification is not official.

#### **1.3 Acts and Decrees**

Foreign Trade Statistics are based on the legislation of the European Community as well as the national Statistics Act (280/4) and Customs Act (1466/94). Within the EU legislation, the compilation of statistics is steered by the Basic Regulation on internal trade statistics (EC, 638/2004), Basic Regulation on external trade statistics (EC, 1172/95), and the respective implementation provisions.

The country classification is based on the Commission Regulation (EC, 1833/2006) on the country classification of the statistics on the Community external trade and the trade between the Member States. The country codes comply with those of the ISO/DIS 3166 standard of the International Organization for Standardization.

### **2. Method description**

The information on the trade carried on by Finland with the other EU Member States is collected from the compulsory statistical declarations provided monthly by importers and exporters through the Intrastat system of the internal trade. The information on the trade between Finland and Third Countries is obtained from customs declarations, which have to be submitted on every import and export consignment. The data on both internal and external trade are put together to form the statistics on the foreign trade of Finland.

### **3. Correctness and accuracy of information**

Both the monthly and the cumulative index materials are examined after the completion of the monthly material on foreign trade. The applied information, however, is preliminary and changes along with the supplementation and further examination of the basic material. The cumulative index allows for the corrections to the material on the months preceding the respective month.

As a rule, all goods exported from and imported in Finland are recorded to statistics. The prerequisite for an inclusion in statistics is that the goods physically arrive in or depart from this country. By way of exception, water- and aircraft are recorded to statistics upon a change in the status of ownership. Among other things, neither transit transports nor economic measures of insignificant commercial value are included in the statistics. Also the smallest companies are released from the obligation to declare statistics on internal trade. Neither is foreign trade in services recorded to these statistics.

#### **4. Up-to-dateness and timeliness of published data**

The unit value and volume indexes of the foreign trade of goods are published within five weeks after the publication of the monthly statistics on foreign trade. The accurate publication timetable is defined for abt. one year ahead. The publication timetable is maintained on the Internet site of the Finnish Customs.

#### **5. Availability and transparency / clarity of data**

The unit value and volume indexes on international trade are published on the web site of the Finnish Customs on the dates announced in advance.

Further information on foreign trade statistics is available from the web site of Customs -> Foreign trade statistics. This site comprises e.g. the principles of compiling statistics on foreign trade as well as all the statistics and surveys on Finnish foreign trade published by the Finnish Customs.

Further information is also available from the Statistics Service at:

- telephone: +358 9 6141 (exchange) or +358 20 690 603 (Statistics Service direct)
- e-mail: [statistics\[at\]tulli.fi](mailto:statistics@tulli.fi)
- Internet: [www.tulli.fi](http://www.tulli.fi)
- Statistical database Uljas: [uljas.tulli.fi](http://uljas.tulli.fi)

#### **6. Comparability of statistics**

Unit value and volume indexes on the foreign trade are being produced since 1997 under the present classifications according to activities and industrial groupings.

#### **7. Clarity and consistency / coherence**

Beside foreign trade statistics, statistical information on foreign trade is available from the National Accounts of the Statistics Finland and the Balance of Payments statistics of the Bank of Finland.

Statistical information on the foreign trade of the EU Member States is available from the publications, web site, and Easy Comext database of Eurostat. This database can be consulted free of charge through Internet. The statistics compiled by the UN on international trade (the Comtrade database) are accessible free of charge on the web site of the UN.

The dissimilarities of the concepts and definitions applied by the EU Member States and their most important trading partners may affect the comparability of statistics.