



QUALITY REPORT FOR STATISTICAL SURVEY

UNIT VALUE INDICES OF EXPORT AND IMPORT OF BiH

2017



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1 STATISTICAL PROCESS AND STATISTICAL PRODUCTS

1.1 Purpose of the survey

In order to better cover international trade in goods flows, determine export and import prices in domestic market, economy competitiveness and real flows of goods, besides nominal indices, export and import price indices and unit value indices of export and import are used.

Export and import price indices are based on »real« prices of goods which are obtained by enterprise surveys. Unit value indices of export and import are based on unit values of goods obtained from administrative sources – Customs. Since it is difficult to conduct enterprise surveys and due to a lack of other suitable sources to obtain »real« prices, most of the countries in the world use unit value indices of export and import. This method does not use market price of goods, but unit value which is defined as a ratio between total value and total quantity of goods in the market. Unit value indices of export and import are not price indices since their change depends on the price as well as the quantity of goods. Unit value in the context of international trade is defined as the price paid for one unit of a given product, when it is sold and exported to or imported from a given country. An advantage of these indices is that they effectively enlarge the number of observations that are used for indices calculation which leads to variance reduction since all export and import transactions of a given product are used.

In Bosnia and Herzegovina unit value indices of export and import are used. Data sources for calculation of unit values are Single Administrative Documents (SAD) which Agency for Statistics of BiH obtains from Indirect Taxation Authority for monthly data processing and production of BiH international trade in goods statistics. Agency for Statistics of BiH has been producing unit value indices of export and import on a quarterly basis since 2011.

1.2 Legal basis and the duties of the statistical institution

- Law on Statistics of Bosnia and Herzegovina
- Multi-annual statistical programs and annual work plans for BiH
- Methodology on BiH international trade in goods statistics
- International recommendations and manuals (Eurostat, IMF, UN)

This statistical survey is a part of the annual programme of operations of the Agency for Statistics of Bosnia and Herzegovina.

1.3. Classification system

- Customs Tariff of Bosnia and Herzegovina 2017
- Combined Nomenclature (CN 2017)
- Harmonized System (HS 2017)
- Standard International Trade Classification (SITC rev.4)
- BiH Classification of Activities (KDBiH 2010)/Statistical classification of economic activities in the EU (NACE rev.2)

Customs Tariff of BiH is the national classification of products used for customs and statistical purposes. It comprises ten digit codes and is in line with international classifications CN and HS.

1.4. Reporting unit

Reporting unit is every entity which exports and/or imports goods.

1.5 Observation unit

Observation unit in the statistical survey unit value indices of export and import of BiH are legal and physical entities which export and import goods i.e. lodge the SAD to ITA.

1.6 Coverage and scope

The statistical survey is not based on sampling. Every Single Administrative Document i.e. export and import transaction is processed.

Every single administrative document comprises data on flow of goods (export or import), product code (ten-digit code in line with Customs Tariff of BiH and Combined Nomenclature), statistical value in KM and quantity in kilograms. These indicators are sufficient to calculate unit value indices of export and import of BiH.

The following records are excluded from the process of calculation of the unit value indices of export and import:

- products without any information either on the net mass or value or which do not appear during some of the observation periods,
- records whose elementary value index is outside the interval (0.5, 2), i.e. the interval $[0.5 * \text{median}, 2 * \text{median}]$, where the median is calculated according to KD BiH (NACE rev.2) divisions,
- electricity - because the calculation is conducted on the net mass, not the supplementary unit.

1.7 Statistical concepts and definitions

Export of goods means flow of goods where goods physically leave customs territory of BiH.

Import of goods means flow of goods where goods physically enter customs territory of BiH.

Goods mean every tangible movable product.

Statistical value represents value of goods according to FOB term of delivery for exports and CIF term of delivery for imports.

Statistical value for exports (FOB – Free On Board) is defined in the following way:

- if the place of delivery is abroad, statistical value comprises invoice value minus transport, insurance and other costs from the border of BiH to the place of delivery abroad,
- if the place of delivery is in BiH, statistical value comprises invoice value plus transport, insurance and other costs from the place of delivery in BiH to the border of BiH.

Statistical value for imports (CIF – Cost, Insurance, Freight) is defined in the following way:

- if the place of delivery is abroad, statistical value comprises invoice value plus transport, insurance and other costs from the place of delivery abroad to the border of BiH,

- if the place of delivery is in BiH, statistical value comprises invoice value minus transport, insurance and other costs from the border of BiH to the place of delivery in BiH.

Quantity of goods represents net weight of goods in kilograms or quantity expressed in one of supplementary quantity units.

Unit value of goods means value of goods in KM per kilogram.

1.8 Statistical outputs

Quarterly and annual unit value indices of export and import, according to KD BiH 2010/NACE rev.2 divisions and SITC rev.4 sections, are produced and published in the quarterly Press Release and annual Thematic Bulletin. These publications can be found on the web site www.bhas.gov.ba.

1.9 Other quality reports

Quality Report on BiH International trade in goods statistics is produced as well.

2 RELEVANCE

2.1 Data users, their needs and satisfaction

2.1.1 Main users

Main users of unit value indices of export and import of BiH are:

- Directorate for Economic Planning under Council of Ministers of BiH,
- Central Bank of BiH,
- Other statistics, like National Accounts Statistics (GDP production).

2.1.2 Users needs

The main indicators required by users are:

- Flow (imports or exports),
- Year,
- Quarter
- Division of KDBiH 2010/NACE rev.2 and section of SMTK/SITC rev.4,
- Index,

2.1.3 Users satisfaction

Looking at the overall quality of the data for statistical domains (their timeliness, accessibility, accuracy, relevance and comparability), users evaluated data in the area of BiH international trade in goods statistics, including the unit value indices of export and import of BiH, and gave an average score of 4,1 (scale 1 - 5).

2.2 Statistics available

2.2.1 Quality and performance indicator – The rate of the ESS statistics available (R1)

The indicator for this statistical survey is not calculated.

3 ACCURACY AND RELIABILITY

3.1 Sampling errors

Statistical survey is not based on sampling. Sampling errors do not exist.

3.2 Non-sampling errors

3.2.1 Coverage errors

Coverage errors do not exist. All Single Administrative Documents i.e. transactions are processed.

3.2.2 Measurement and processing errors

3.2.2.1 Causes of measurement and processing errors

Errors can arise while inputting data i.e. inputting and submitting Single Administrative Documents. They have an impact on the production of unit value indices of export and import of BiH.

3.2.2.2 Measures taken to reduce the number of measurement and processing errors

This statistical survey is based on the BiH international trade in goods statistics data. Indirect Taxation Authority and Agency for Statistics of BiH perform data validity and credibility checks on statistical value in KM and quantity in kg. Also, during the data production process, records which do not conform to certain rules are excluded (see chapter 1.6).

3.2.3 Non-response errors

Statistical survey is not based on sampling. Non-response errors do not exist.

3.2.4 Imputation

The imputation of indices is not performed.

3.2.4.1 Quality and performance indicator – Imputation rate (A7)

Since the imputation of indices is not performed, the rate of imputed data is 0%.

3.3 Revisions

The Agency for Statistics of BiH does not have an official paper on revision policy.

Quarterly indices are revised annually. Revisions are based on the updates of the data provided by the Indirect Taxation Authority. Annual revision of quarterly indices is performed on the final data for previous year which are published in July of the current year in the Thematic Bulletin.

Users are informed about revisions in methodology part of the Press Release and Thematic Bulletin.

3.3.1 Quality and performance indicator – Average size of data revision (A6)

Relative mean absolute revision (RMAR) for the 2017, comparing final and provisional quarterly indices, is 0,16%.

3.4 Confidentiality

Data confidentiality does not have an impact on the calculation of unit value indices of export and import of BiH.

4 TIMELINESS AND PUNCTUALITY OF THE RELEASE

4.1 Timeliness of the release

4.1.1 Quality and performance indicator – Time lag of first results (TP1)

Reference period	I quarter	II quarter	III quarter	IV quarter	Average
Date of publishing of the first results	22.5	21.8	20.11	20.2	/
Time gap (number of days or months)	T+52	T+51	T+50	T+50	T + 51

Time lag of first results (annual average) is T+51.

4.1.2 Quality and performance indicator – Time lag of final results (TP2)

The time lag of first results is the same as the time lag of final results.

4.2 Punctuality of the release

4.2.1 Quality and performance indicator – Punctuality of delivery and publication (TP3)

Indicator for producers:

Reference period	I quarter	II quarter	III quarter	IV quarter	Average
Expected date of publishing	22.5	21.8	20.11	20.2	/
Actual date of publishing	22.5	21.8	20.11	20.2	/
Timer gap (number of days)	T+0	T+0	T+0	T+0	T+0

Punctuality of delivery and publication is T+0. (there is no gap between expected date of the publication from the Calendar of publication and the actual date of publication).

Indicator for users:

Punctuality of delivery and publication is 100%.

4.3 Reasons for major delays and the measures taken to improve the timeliness and punctuality of releases

There were no delays regarding the release of the results.

5 COHERENCE AND COMPARABILITY

5.1 Coherence

5.1.1 *Quality and performance indicator – Coherence with results from referent source (CH1)*

The only data source for the production of unit value indices of export and import of BiH is the Indirect Taxation Authority – Customs (data from Single Administrative Documents).

5.1.2 *Reasons for discrepancies*

There are no discrepancies. Guidelines of Eurostat and UN are followed when producing indices.

5.2 Comparability

5.2.1 *Comparability over space*

Unit value indices of export and import of BiH are comparable over space.

5.2.1.1 *Quality and performance indicator – Asymmetry for mirror flows statistics (CC1)*

It is not possible to calculate the indicator since the Agency for Statistics of BiH does not produce indices by countries.

5.2.2 *Comparability over time*

Unit value indices of export and import of BiH are comparable over time. Base year changes every five years, but the indices are always recalculated.

5.2.2.1 *Quality and performance indicator – The length of comparable time series (CC2)*

Unit value indices of export and import of BiH are produced and published from 2011 onwards.

By 2017, there is a 7-year long data time series for BiH. The value of this indicator, considering that these are quarterly series is $7 \times 4 = 28$ (CC2=28).

5.2.2.2 *Interruptions within the time series*

There have been no interruptions in unit value indices of export and import of BiH time series, since their introduction in 2011.

6 ACCESSIBILITY AND CLARITY, DISSEMINATION FORMATS

6.1 Data releases

Provisional quarterly and annual unit value indices of export and import of BiH are published in the Press Release »Unit value indices of export and import of BiH«. The following indices are presented:

- Quarterly unit value indices of export and import of BiH according to KD BiH 2010/NACE rev.2 divisions,
- Quarterly unit value indices of export and import of BiH according to SITC rev.4 sections,
- Annual unit value indices of export and import of BiH according to KD BiH 2010/NACE rev.2 divisions,
- Annual unit value indices of export and import of BiH according to SITC rev.4 sections.

Data are presented free of charge on the Internet, in PDF file format only.

http://www.bhas.ba/index.php?option=com_publicacija&view=publicacija_pregled&ids=2&id=7&n=Vanjska%20trgovina&Itemid=&lang=en

6.2 Data publications

Final quarterly and annual unit value indices of export and import of BiH are published in the Thematic Bulletin »International trade in goods of BiH«. The following indices are presented:

- Quarterly unit value indices of export and import of BiH according to KD BiH 2010/NACE rev.2 divisions,
- Quarterly unit value indices of export and import of BiH according to SITC rev.4 sections,
- Annual unit value indices of export and import of BiH according to KD BiH 2010/NACE rev.2 divisions,
- Annual unit value indices of export and import of BiH according to SITC rev.4 sections.

Data are presented free of charge on the Internet, in PDF file format only.

http://www.bhas.ba/index.php?option=com_publicacija&view=publicacija_pregled&ids=2&id=7&n=Vanjska%20trgovina&Itemid=&lang=en

6.3 Online database

There is no online database for unit value indices of export and import of BiH.

6.4 Accessibility to microdata

The microdata are not accessible.

6.5 Accessibility to methodology documents

Information on methodology can be found in the Press Release »Unit value indices of export and import of BiH« and Thematic Bulletin »International trade in goods of BiH«.

6.6 Measures used to improve the accessibility and clarity of disseminated results

Data posted at the web page of the Agency for Statistic of BiH are shown in PDF file format only. The Agency for Statistics of BiH is in the process of production of a new website. The new website will present data in excel tables.

Users can contact statisticians for any clarifications regarding data.

6.7 Quality and performance indicator – Consultation of data tables (AC1)

There is no information for this indicator.

6.8 Quality and performance indicator – Consultation of metadata (AC2)

There is no information for this indicator.

6.9 Quality and performance indicator – Completeness rate of metadata (AC3)

The total number of metadata elements from the ESMS v.2.0 (EURO-SDMX Metadata Structure) is 60. The number of available metadata elements for statistical survey “Unit value indices of export and import of BiH” is 54. Thus, the metadata completeness rate (AC3) for the mentioned survey is 0,9 or 90% ($54/60 \times 100$).

7 SURVEY COSTS AND RESPONDENTS/REPORTING UNITS WORKLOAD

7.1 Survey costs for the statistical office

Regarding the cost of human resources, there are two persons working full time on the production of BiH international trade in goods statistics and BiH export and import unit value indices in the Agency for Statistics of BiH.

7.2 Respondents/reporting units workload

Administrative data are used. Source of data is the Indirect Taxation Authority and data from Single Administrative Documents are used. Information on respondents' annual workload is not available at the Agency for Statistics of BiH. Only the Indirect Taxation Authority has information regarding these indicators.

7.3 Measures taken to reduce the costs and workload

Administrative data are used. Source of data is the Indirect Taxation Authority. This institution is responsible for introducing measures to reduce respondents' costs and burden.

8 CONFIDENTIALITY

8.1 Confidentiality – policy

Statistical data confidentiality is required by law, while the staff in charge of the statistical compilation is also, according to the same legislation, bound to protect that confidentiality.

Thus the Article 27 of the Law on Statistics of BiH states that »All measures of organisational, regulatory, administrative and technical nature necessary to protect Confidential Data against unauthorised access, disclosure and use, shall be taken by the Competent Authorities in collecting, processing, transmitting and dissemination of Statistics of Bosnia and Herzegovina including at the Entity level«, while the Article 28 of the same Law states that »Persons having access to Confidential Data in the performance of their tasks shall be subject to compliance with the provisions of this law, even after the cessation of their functions«.

In addition, the document called the »Rulebook on the Protection of Statistical Data at the Agency for Statistics of BiH« describes the procedures to secure confidentiality during collection, processing and dissemination – including protocols to safeguard individual accessible data, rules to define confidential cells in output tables as well as procedures to detect and prevent disclosure and the access to microdata by external users for research purposes.

8.2 Confidentiality – data treatment

Only the persons who work on production of BiH international trade in goods statistics have access to micro data. Confidential data on the server machine are protected from unauthorised access. Micro data are not accessible to researchers.

Micro data are treated in accordance with the Law on Statistics of BiH.

9 STATISTICAL PROCESSING

9.1 Data sources

The only source for the production of unit value indices of export and import of BiH is the Indirect Taxation Authority – Customs (data from Single Administrative Documents).

Single Administrative Document is a document lodged by declarer (business entity or other authorized person, i.e. freight forwarder) to a customs office for customs clearing. Every Single Administrative Document received from the Indirect Taxation Authority comprises, among other data, data on flow of goods (export or import), product code (ten-digit code in line with Customs Tariff of BiH and Combined Nomenclature), statistical value in KM and quantity in kilograms.

9.2 Frequency of data collection

Data are collected on a monthly basis, but the indices are produced on a quarterly basis.

9.3 Data collection

The Indirect Taxation Authority transmits the monthly trade data (Single Administrative Documents) on a CD/DVD not later than 7 working days after the end of the reference month. Data are presented in an Access database format.

The database always comprises revised data for the previous months, e.g. the database with the new data for April comprises revised data for January, February and March.

9.4 Data validation

Since the data source for this statistical survey is Indirect Taxation Authority i.e. data from Single Administrative Documents, Indirect Taxation Authority and Agency for Statistics of BiH are responsible for data controls.

Regarding the data validation performed by the Indirect Taxation Authority, for electronic declarations, initial checks are built into the EDI system. Consistency checks are applied later together with checks on duties. The Indirect Taxation Authority does not apply any logical controls or credibility checks on the data submitted by the traders or their agents. Some basic checks are made, which ensure that codes are correct. The Indirect Taxation Authority applies many risk analysis checks on the data, but only for customs purposes.

Regarding the data validation performed by the Agency for Statistics of BiH, validity and credibility checks are performed. A validity error is found when a record is not correct therefore it may cause processing problems, it cannot be included in the statistical analysis and so it must be removed or corrected. Examples of this kind of errors are incorrect or missing codes, missing values in the Single Administrative Documents, character data in numeric field and vice versa, etc. If errors arise, they are corrected. Credibility controls mean checks on the accuracy of data and assessment of all possible errors associated with the data.

Validity controls performed by the Agency for Statistics of BiH are e.g. country of destination or origin code cannot be found in the list of country codes, product code cannot be found in the list of product codes, statistical value is not entered or is equal to zero etc.

Credibility controls performed by the Agency for Statistics of BiH are e.g. product unit value in KM per kilo for export is outside the predefined range, product unit value in KM per kilo for import is outside the predefined range etc.

Also, during the data production process, records which do not conform to certain rules are excluded (see chapter 1.6).

9.5 Data compilation

The Agency for Statistics of BiH performs automatic processing of electronic Single Administrative Documents in order to obtain data on BiH international trade in goods statistics. After that, unit value indices of export and import of BiH are calculated.

The final results of calculation are the following indicators:

- Flow (export or import)
- Year
- Quarter
- Division of KDBiH 2010/NACE rev.2 and section of SMTK/SITC rev.4,
- Index.

9.6 Data adjustments

Adjustments are not performed with unit value indices of export and import of BiH.
