Input-output tables

EA_IN-AUT_A_EN_2020_1

Reference Metadata in ESMS 2.0 structure

1	**Contact**
1.1	**Contact organisation**
State Statistical Office	
1.2	**Contact organisation unit**
Department for calculation of GDP by expenditure method	
1.3	**Contact name**
Lidija Kralevska	
1.4	**Contact person function**
Adviser	
1.5	**Contact mail address**
Dame Gruev 4, 1000 Skopje, Republic of North Macedonia	
1.6	**Contact email address**
lidija.kralevska@stat.gov.mk	
1.7	**Contact phone number**
(02) 3295-686	
1.8	**Contact fax number**
2	**Metadata update**
2.1	**Metadata last certified**
2.2	**Metadata last posted**

2.3 Metadata last update

16/11/2023

3 Statistical presentation

3.1 Data description

The symmetric input-output table is a “product-by-product” or “industry-by-industry” matrix describing the domestic production processes and the transactions in products of the national economy. The symmetric input-output table “product-by-product” describes the technological relations between products (the amounts of products that were used to produce each product, irrespective of the producing industry), while the symmetric input-output table “industry-by-industry” describes inter-industry relations (for each industry the use of products of the other industries).

The symmetric input-output table is elaborated with the conversion of the supply and use tables valued at basic prices. The basic conceptual difference between the supply and use table and a symmetric input-output table is that in the first one the statistics relate products within the rows to industries within the columns, while in the symmetric input-output table the statistics relate products within the rows to products within the columns or industries within the rows to industries within the columns.

Columns in the left part of the symmetric input-output table show the values of products and services used as inputs in the production process of each subsection of products and in the lower part the composition of value added generated by the production of this subsection of products. Columns in the right part of the symmetric input-output table show the data on final uses in the same way as in the use table valued at basic prices. The sum of each column in the symmetric input-output table is equal to total supply (production plus imports) at basic prices for each subsection of products shown by rows in the supply table. The sum of each row in the symmetric input-output table is equal to total use (intermediate consumption plus final use) at basic prices for each subsection of products shown by rows in the use table at basic prices. There is equality between the rows and columns in the symmetric input-output table. The sum of each column in the symmetric input-output table is equal to the sum of each corresponding row.

3.2 Classification system

National Classification of Activities - NKD Rev.2.

Classification of Products by Activities - KPD.

3.3 Sector coverage

Subsections of the Classification of Products by Activities - KPD.

3.4 Statistical concepts and definitions

The symmetric input-output tables are compiled on the basis of the methodological concepts, definitions and classifications recommended in the EUROSTAT "Manual on Input-Output Tables". The symmetric input-output tables are elaborated with the conversion of the supply and use tables valued at basic prices. The transformation only rearranges, on the basis of the output table and the assumption applied, the columns of the intermediate consumption from the use table at basic prices. In this transformation the final use data are left unchanged and are the same as in the use table valued at basic prices. Two types of symmetric input-output tables can be derived: "product-by-product" and "industry-by-industry". The State Statistical Office compiled the symmetric input-output tables "product-by-product" according to the recommendations of EUROSTAT.

3.5	Statistical unit

3.6	Statistical population

3.7	Reference area

NTES 1 and 2 (Republic of North Macedonia)

3.8	Time coverage

For 2005 and 2010 according to ESA 95.

For 2015 and 2020 according to ESA 2010.

3.9	Base period

4	Unit of measure

Million denars.

5	Reference period

Year (calendar year from 01.01. to 31.12.)

6	Institutional mandate

6.1	Legal acts and other agreements

National:
Law on State Statistics ("Official Gazette of the Republic of Macedonia" No. 54/97, 21/07, 51/11, 104/13, 42/14, 192/15 and 27/16), Programme of Statistical Surveys 2023-2027 ("Official Gazette of the Republic of Macedonia" No.29/23).

International: Regulation (EU) No 549/2013 of the European Parliament and of the Council Commission Implementing Regulation (EU) No 724/2014, on the interchange standard required under Regulation (EU) No 549/2013. System of National Accounts 2008, EC/IMF/OECD/UN/WB, 2009

European system of accounts ESA 2010, Eurostat, 2013
Eurostat Manual of Supply, Use and Input-Output Tables, Eurostat, 2008

6.2 Data sharing

The tables are transmitted through eDAMIS to EUROSTAT.

7 Confidentiality

7.1 Confidentiality - policy

http://www.stat.gov.mk/pdf/PolitikaZaDoverlivost.pdf

Individual data are protected by the Law on State Statistics. Data collected with statistical surveys from the reporting units or indirectly from administrative or other sources are confidential data and are used only for statistical purposes. Results from the statistical processing may also generate information considered as confidential, for example: anonymised individual data, tables with low level of aggregation, as well as unreleased data. The Policy on Statistical Confidentiality contains the basic principles used in the SSO.

7.2 Confidentiality - data treatment

When releasing data at an aggregated level, there is no need for additional data treatment for the purpose of ensuring confidentiality.

8 Release policy

8.1 Release calendar

Data are released in accordance with the Release Calendar, which is published on the web site of the State Statistical Office. The Release Calendar is prepared annually before the beginning of each year and is updated quarterly.

8.2 Release calendar access

http://www.stat.gov.mk/Kalendar_nov.aspx

8.3 User access

In accordance with the dissemination policy, all users have equal access to statistical data at the same time. Data are released on the web site at the same time for all users, which are informed with the Release Calendar, and no user has privileged access.

9 Frequency of dissemination

Five-yearly.

10 Accessibility and clarity

10.1 News release

10.2 Publications

10.3 On-line database

http://www.stat.gov.mk/IOTabeli.aspx

MakStat database: Supply and Use Tables and Input-Output Tables

10.4 Micro-data access

The use of microdata by external users is possible only for research purposes and is done in accordance with the Law on State Statistics https://www.stat.gov.mk/ZakonZaStatistika_en.aspx (Article 41, Article 42 and Article 43). Access to anonymised microdata is defined by an internal procedure of the State Statistical Office 'Access to anonymised microdata for scientific research purposes' (https://www.stat.gov.mk/ZaNas_en.aspx?id=22).

10.5 Other

Tables data are sent to Eurostat and they are released on the web site of this institution.

10.6 Documentation on methodology

https://www.stat.gov.mk/PrikaziPoslednaPublikacija.aspx?id=64

Methodological explanations that are part of the publication "Symmetric Input-Output Tables".

10.7 Quality documentation

11 Quality management

11.1 Quality assurance

The commitment of the SSO to ensuring quality of products and services is described in the Law on State Statistics, the Strategy of the State Statistical Office (http://www.stat.gov.mk/ZaNas_en.aspx?id=6) and the Quality Policy of the State Statistical Office (http://www.stat.gov.mk/pdf/Politika_za_kvalitet_en.pdf), as well as in the continuous efforts for harmonisation with the European Statistics Code of Practice. The main aspects and procedures for quality management in the phases and sub-phases of the Statistical Business Process Model, as well as the good practices for ensuring quality are documented in the internal document called “Guide for ensuring quality of statistical processes”. Input and output metadata, as well as

relevant quality indicators for certain sub-processes are described in the document “Guide for survey managers”.

11.2	Quality assessment

12	Relevance

12.1	User needs

Symmetric input-output tables are the basis for input-output analyses. They serve for description of technology-economic linkages in the economy. As an analytical tool input-output data are conveniently integrated into macroeconomic models in order to analyze the links between demand and supply, in particular between final demand components and industrial output levels. Input-output analysis also serves a number of other analytical purposes by linking other major statistics (employment, capital, energy, environment) to the system of national accounts.

12.2	User satisfaction

The State Statistical Office conducts the User Satisfaction Survey at the domain level. This Survey is conducted every three years and the last one was in 2019. http://www.stat.gov.mk/pdf/Anketa2019.pdf

12.3	Completeness

In terms of the indicators required by the regulations of the European Commission, the SSO provides about 100% of them.

13	Accuracy and reliability

13.1	Overall accuracy

Data accuracy is ensured by working on decreasing sampling and/or non-sampling errors, as well as with additional data comparisons and analysis before dissemination.

13.2	Sampling error

Not applicable.

13.3	Non-sampling error

Not applicable.

14	Timeliness and punctuality

14.1	Timeliness

T+1050.

14.2	Punctuality

Data are disseminated within the established deadlines in accordance with the Release Calendar.

15	Coherence and comparability

15.1	Comparability - geographical

The data are produced at NTES 1 and 2 level (Republic of North Macedonia). The comparability is ensured at international level.

15.2	Comparability - over time

For 2005 and 2010 according to ESA 95.

For 2015 and 2020 according to ESA 2010.

15.3	Coherence - cross domain

Cross-domain coherence is ensured. There have been comparisons with annually national accounts data.

15.4	Coherence - internal

Internal coherence of data is ensured.

16	Cost and burden

17	Data revision

17.1	Data revision - policy

In accordance with the Statistical Data Revision Policy. http://www.stat.gov.mk/ZaNas.aspx?id=25

17.2	Data revision - practice

Revision of data is making due to the change of the European System of Accounts ESS95, ESA 2010; System of National Accounts SNS93, SNS2008, changes of National Classification of Activities etc.

18	Statistical processing

18.1	Source data

The data sources are: the supply and use tables of goods and services at basic prices.

18.2 Frequency of data collection

Annually.

18.3 Data collection

Data collection is done by electronic way, aggregated at two digit level of classification by products, from the supply and use tables of products and services at basic prices.

18.4 Data validation

State Statistical Office

Mathematical control and balancing of sums by column and row is made.

18.5	Data compilation

18.6	Adjustment

Not applicable.

19	Comment

A.1 Annexes

State Statistical Office