Documentation of statistics for International Trade in Services 2021

1 Introduction

Foreign trade in services describes the trade in services (imports and exports) with other countries. The trade is described both in terms of type of services and in terms of partner country/area. The statistics were introduced in connection with the termination of the settlement statistics in Danmarks Nationalbank by new-year 2004/05, cf. Balance of payments.

2 Statistical presentation

The statistics show Denmark's imports and exports of services from/to other countries distributed on partner countries and approx. 70 service categories.

2.1 Data description

The statistics show Denmark's imports and exports of services from/to other countries distributed on partner countries and approx. 70 service categories on a quarterly basis. On a monthly basis the statistics are completely aggregated.

2.2 Classification system

The statistics on international trade in services cover approx. 70 categories of services; these are aggregated to 15 main groups: - Manufacturing services - Repair services - Sea transport - Air transport - Other transport - Postal and courier services - Travel-related services - Construction services - Insurance services - Financial services - Royalties and licenses - Telecommunication services, computer services, and information services - Other business services - Cultural, personal, and recreational services - Public services.

2.3 Sector coverage

Not relevant for these statistics.

2.4 Statistical concepts and definitions

Resident person (Dane): A person who is permanently resident in Denmark or a person who has been or intends to reside in Denmark for more than one year. However, students and persons in the treatment of illness remain residents of their home country, even if they have to spend more than a year in Denmark, in connection with their studies or treatment.

Resident business: A resident business enterprise is either a Danish enterprise in Denmark or a foreign enterprise which has been engaged or intends to be engaged in economic activities in Denmark. This means that branches or subsidiaries in Denmark of non-resident enterprises are regarded as resident enterprises, while branches or subsidiaries of resident Danish enterprises abroad are regarded as non-resident enterprises.

2.5 Statistical unit

In Survey on international trade in services the units are delimited according to their legal registration number (cvr. number). Other kind of units (e.g. persons) is used in supplementary sources.

2.6 Statistical population

The statistics cover trade in services performed by Danish residents with foreign residents. The statistical population for Survey on international trade in services is assumed to consist of approx. 40.000 units (cvr. numbers), which according to different assumptions are considered to be covering the total foreign trade in services. This population is delimited using the business register and some other sources.

2.7 Reference area

The statistics cover trade in services performed by Danish residents with foreign residents.

2.8 Time coverage

The statistics cover the period since New Year 2004/2005.

2.9 Base period

Not relevant for these statistics.

2.10 Unit of measure

The statistics are compiled in DKK.

2.11 Reference period

Quarter

2.12 Frequency of dissemination

The statistics are published, for main results, monthly with the balance of payment statistics. The statistics are otherwise published quarterly and annually.

2.13 Legal acts and other agreements

Act on Statistics Denmark (§ 9a and § 10).

Parliament and Council regulation (EEC) No 184/2005 of 12 January 2005 on Community statistics concerning balance of payments, international trade in services and foreign direct investment (OJ L 310 08.02.05) and later Commission regulations.

2.14 Cost and burden

The response burden has been estimated to DKK 8,1 million.

2.15 Comment

International trade in services has a webpage [International trade in services](#)

3 Statistical processing

Data is collected every month. The data is screened for obvious and likely errors. The completeness of the reports is checked. The data is used for compiling the statistics through a process of grossing up for the trade not covered. The statistics is accordingly to be considered to completely cover the Danish foreign trade in services.

3.1 Source data

The most important source of the statistics is Survey on international trade in services, a combination of monthly reports from approx. 390 firms and annual reports from approx. 1300 firms. The statistical population for Survey on international trade in services is assumed to consist of approx. 40.000 units (cvr. numbers), which according to different assumptions are considered to be covering the total foreign trade in services. Supplementary information from other sources on travel as well as on other items is used. Most important source for travel revenues is the interviews with foreign travelers in Denmark which is carried out in cooperation with VisitDenmark. Travel expenditure is compiled using different information on consumption by Danes abroad, number of nights abroad, and transport abroad from statistics from other countries. Information on public services is provided through statistics on public finance. Private consumers import of electronic services from abroad is estimated on data derived from the Mini One Stop Shop (MOSS) VAT system. The MOSS system captures sales of electronically delivered services to non-taxable Danish residents. This data is supplemented with an estimate of gambling services based on the statement of income from betting, lotteries and casino business from the Danish gaming authorities. Other sources are estimates of illegal trade across the border (find more information on the method on [Major revision of national accounts](#)).

3.2 Frequency of data collection

Data is collected monthly and annually for the main source i.e. Survey on international trade in services. For other sources different frequencies can occur.

3.3 Data collection

Data is collected mostly electronically through the system IDEP.

3.4 Data validation

Data is compared with earlier reported data. If relevant, data is also compared with reports to other statistics.

3.5 Data compilation

Data is grossed up to the total population, assumed to consist of about 40.000 units. The grossing-up routine is dynamic as the weights are recalculated when new data are available. The 390 monthly reporters are allotted with weight 1, while the 1300 annual reporters are allotted with weights larger than 1 (or 1). The final weights are based on the design weights, which are calibrated according to some stratum totals.

3.6 Adjustment

In the quarterly statistics adjustment for seasonality is performed. All service groups' trade is divided between receipts and expenditure, as well as the EU and the rest of the world outside the EU. These series as well as the selected countries' trade by receipts and expenditure are seasonally adjusted directly. Other levels are calculated based on this (indirect seasonal adjustment). Data is seasonally adjusted using JDemetra+ with fixed model examined every two years. There will be adjusted for Easter, trading days and leap years if these effects are significant. There is no special adaptation of the annual figures, and there can be discrepancies between actual and seasonally adjusted figures annually. The seasonally adjusted figures are divided into service groups and by geography. The totals in the two reports are consistent.

4 Relevance

The International trade in services statistics constitute an essential part of the balance of payments statistics and of the rest-of-the-world account of national accounts. The statistics are occasionally commented upon in the public debate.

4.1 User Needs

Foreign trade in services is an independent statistics and is used in the compilation of the Balance of payments. Important users are hence public authorities, private organisations, firms and private individuals.

4.2 User Satisfaction

Measurements of user satisfaction are not available.

4.3 Data completeness rate

The publication of data is compatible with the EU requirements on data reporting.

5 Accuracy and reliability

In the first release of the figures for foreign trade in services there will be a certain degree of uncertainty as a minor part of the data has either not been reported yet or has errors to a degree that it cannot be included in the release. In these cases data will be supplemented by estimations. The reliability of the figures for a given quarter increases in later releases. The final figures are to be considered as fairly reliable, to a decreasing degree though the more detailed level that is applied.

5.1 Overall accuracy

The statistics on foreign trade in services are basically compiled on partly a cut-off sample of Denmark's 390 largest firms engaged in this trade (monthly reports) and partly a stratified sample of about 1.300 small and medium-sized firms (annual reports). So the Survey on international trade in services is a sample based survey and data is grossed up to the total population. This entails by its very nature some inaccuracy, especially regarding the geographical dimension. An important element of inaccuracy is attached to the frame from which the sample is drawn. The frame was first derived from the settlement statistics of Danmarks Nationalbank, which is abolished in 2004. Effective from 2009 a new frame has been taken into use. This frame has been delimited from Business register and special "screening" surveys conducted every fifth year, last time in 2013, where 5.000-6.000 firms have been questioned.

Finally it must be considered that the concepts being employed in the statistics are rather complicated. Accordingly misunderstandings in the reports leading to inaccurate compilations are unavoidable. This problem is constantly addressed by contacting the reporters when suspicions of misunderstandings are raised. Special analyses have been conducted on the items sea transport, travel, insurance, merchanting, government services (n.i.e.), construction services, and services between affiliated enterprises (n.i.e.) and most lately on intellectual property services. The travel item entails some difficulty, especially travel debits. It is compiled using different information on consumption by Danes abroad, number of nights abroad, and transport abroad from statistics from other countries; but the risk of error is fairly big, particularly concerning small partner countries. This error margin can, however not be calculated.

5.2 Sampling error

The statistics on foreign trade in services are mainly based on a sample survey, which entails sampling error. The sampling error is especially high for the most detailed levels.

The coefficient of variation (CV) is used to quantify sampling error. The coefficient of variation is the ratio of the standard error to the estimate i.e. the relative standard error. The estimated coefficients of variation for survey on foreign trade in services (provisional figures): Export of services (total): app. 0,5 pct. Import of services (total): app. 0,7 pct. With a usual confidence interval of 95 pct. this means that the relative sampling error is at most 1 pct. for exports and 1.4 pct. for imports. For example, if the export is estimated at 200.000.000, the sampling error is app. 1 pct. i.e. app. 2.000.000.

The estimated coefficients of variation for the more detailed levels can be substantially higher (see attached document here). Values with CVs greater than 35 are suppressed.

5.3 Non-sampling error

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5.4 Quality management

Statistics Denmark follows the recommendations on organisation and management of quality given in the Code of Practice for European Statistics (CoP) and the implementation guidelines given in the Quality Assurance Framework of the European Statistical System (QAF). A Working Group on Quality and a central quality assurance function have been established to continuously carry through control of products and processes.

5.5 Quality assurance

Statistics Denmark follows the principles in the Code of Practice for European Statistics (CoP) and uses the Quality Assurance Framework of the European Statistical System (QAF) for the implementation of the principles. This involves continuous decentralized and central control of products and processes based on documentation following international standards. The central quality assurance function reports to the Working Group on Quality. Reports include suggestions for improvement that are assessed, decided and subsequently implemented.

5.6 Quality assessment

Compared to statistics in countries, which are comparable with respect to size and development, the Danish statistics on foreign trade in services are considered to be of good quality. Some reservation, however, has to be indicated with respect to the distribution on partner countries.

5.7 Data revision - policy

Statistics Denmark revises published figures in accordance with the Revision Policy for Statistics Denmark. The common procedures and principles of the Revision Policy are for some statistics supplemented by a specific revision practice.

5.8 Data revision practice

After the first publication of the international trade in services it is continuously adjusted, as supplementary or adjusted statistical material appears. The supplementary information implies that the final calculation of the international trade in services is only prepared about 2-3 years after the expiry of the reference year. According to practice the data of the months of the previous year are locked by late September. Simultaneously the data of the preceding year are revised and locked again. The last revision is conducted according to the final National Accounts about 3 years after the expiry of the reference year.

6 Timeliness and punctuality

The statistics are published every quarter approx. 40 days after the end of the reference period.

6.1 Timeliness and time lag - final results

The statistics are published every quarter approx. 40 days after the end of the reference period.

6.2 Punctuality

The statistics are normally published without delays as to the preannounced dates.

7 Comparability

The International trade in services statistics are compiled according to international standards. Accordingly they are comparable with the statistics of other developed countries.

7.1 Comparability - geographical

The International trade in services statistics are compiled according to international standards. Accordingly they are comparable with the statistics of other developed countries. The partner countries' recording of the same transactions (the mirror transactions) are in principle comparable statistics. Such comparisons are, however, usually entailed with several problems.

7.2 Comparability over time

Breaks in the time series are to be expected for trade in services as a result of the new sources and the new compilation method since 2005. This particularly applies for items at a low level of aggregation. It is, however, submitted that total trade in services, net, is compiled without any significant break. The updated sample and adjusted grossing up procedures, effective from 2009 and again from 2014, does not establish breaks in the usual sense of the word, but again minor breaks on the most detailed levels can be observed.

7.3 Coherence - cross domain

The international trade in services statistics are included in the Balance of Payments statistics without any adjustment and also in the rest of the world account of The National Accounts. The National Accounts have a different split between goods and services for imports compared with Balance of Payments; the difference relates to freight on imports. This implies that only the sum of goods and services are identical in the two statements.

7.4 Coherence - internal

There is full internal coherence.

8 Accessibility and clarity

These statistics are published quarterly in a Danish press release, at the same time as the tables are updated in the StatBank. In the StatBank, these statistics can be found under International trade in services. For further information, go to the subject page.

8.1 Release calendar

The publication date appears in the release calendar. The date is confirmed in the weeks before.

8.2 Release calendar access

The Release Calender can be accessed on our English website: Release Calender.

8.3 User access

Statistics are always published at 8:00 a.m. at the day announced in the release calendar. No one outside of Statistics Denmark can access the statistics before they are published.

8.4 News release

These statistics are published quarterly in a Danish press release.

8.5 Publications

These statistics featured in the Statistical Yearbook.

8.6 On-line database

The statistics are published in the StatBank under the subject [International trade in services](#) in the following tables:

- [UHT4S1](#): International trade in services by imports and exports, seasonal adjustment, items and time
- [UHT4S2](#): International trade in services by imports and exports, seasonal adjustment, country and time
- [UHTP](#): International trade in services, quarterly by imports and exports, items and time
- [UHTL](#): International trade in services, quarterly by imports and exports, country and time
- [UHTX](#): International trade in services, quarterly by imports and exports, items, country and time

8.7 Micro-data access

Researchers and other analysts from authorized research institutions, can be granted access to the underlying microdata by contacting [Research Services](#).

8.8 Other

The statistics are included in the compilation of the balance of payments and are submitted to the OECD and the EU.

8.9 Confidentiality - policy

[Data Confidentiality Policy](#) at Statistics Denmark.

8.10 Confidentiality - data treatment

Some service categories are aggregated before publication due to confidentiality.

8.11 Documentation on methodology

Methodological documentation is only available in Danish.

8.12 Quality documentation

Results from the quality evaluation of products and selected processes are available in detail for each statistics and in summary reports for the Working Group on Quality.

9 Contact

The administrative placement of this statistics is in the division of External Economy International Trade in Service. The person responsible is Selma Mustafic Mulalic, tel.: +45 3917 3664, e-mail: smu@dst.dk

9.1 Contact organisation

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