

ANNUAL STATISTICS ON SERVICE TRADE TRANSACTIONS IN SWEDEN

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INTRODUCTION

This paper describes a Swedish annual enquiry on service trade transactions. The survey covers services and transfers traded by all industries except shipping and banking (provisions, arbitrations and other charges to and from abroad). Service trade by the public sector and by the households is not included. The exports of services exclusive of shipping services amounted to 40 billion SEK in 1986, roughly 13 % of total exports (transfers included). Imports were 44 billions SEK, 16 % of total imports (transfers included). Before the presentation, some background is given about the balance of payment statistics situation in our country.

THE BALANCE OF PAYMENT BACKGROUND

In 1978 there was a debate on the reliability of the balance of payment statistics in the newspapers. The statistics had shown large deficits in the current account in 1974, 1975 and 1976, altogether 23 billion SEK. For the same time the net error and omission item in the official balance figures showed a net inflow of currency of 11 billion SEK. This item had been positive since the early fifties and had risen sharply in the beginning of the seventies. In 1978 a Statistics Sweden study on Swedish enterprise groups with large activities abroad revealed that the twenty biggest enterprise groups reported more rent income and more dividends than the totals reported to the balance of payments compilers.

A first test with an enquiry to 1 500 big enterprises was made in 1978. It showed that there was a lot of service export transactions whose payments were not reported to the Riksbank. A preliminary correction item was put into the current account for 1977.

Since 1978 regular annual enquiries have been carried out by Statistics Sweden and the outcomes from these have been put into the balance as a correction item on exports of services. In later years the correction item has been split up into sub-items under exports of services. The total correction item was:

- 15.4 billion SEK in 1982
- 15.7 " " " 1983
- 17.1 " " " 1984
- 18.0 " " " 1985
- 19.7 " " " 1986

The implementation of the service enquiry results in the balance of payments has had great impact on the reliability. Anyway, the net error and omission item became no longer systematically positive. In fact, it was close to nil for many years and in recent years negative. However, the uncertainty underlying the balance figures still remains. One need for improvement relates to timelines. The enquiry figures are annual and available 8-9 months after the end of the reporting years. This means that an estimate for the correction item has to be done for the year ahead. Should the estimate miss in accuracy, adjustments in previous current account have to be made when the results of the survey are available. In March 1987 a new reporting system for export payments was started by the Riksbank. In this system all received payments above 25 000 SEK have to be reported. The collection is carried out monthly by tape from the commercial banks. The payments are classified by kind of payment, country and currency. How the figures for service-export-payments will fit with the figures for service-export-transactions is not known yet.

A lot of quality studies have been carried out. These have supplied quite amount of information on differences between payment data and transaction data as is reported in the enquiry.

THE ENQUIRY POPULATIONS AND SAMPLE

The survey population consists of all operating enterprises, except banks, co-operative building societies, public health and sick care, public administration and social welfare institutions. All personal enterprises are excluded also.

The Central Register of Present Enterprises delimited to enterprises with corporate institutional sector code, enterprise trade organizations and foreign enterprise branch offices, have constituted the sampling frame.

For stratification, information has been gathered from:

- o Previous surveys.
- o The Enterprise Register of the Financial Accounts Statistics delimited to enterprises with foreign receivables or liabilities amounting to, at least, 1 million Sw. Cr.
- o The latest available Register of Enterprises with Foreign Ownership.
- o The latest available Register of Company Groups.

The sample comprises both enterprises reporting exports and/or imports of services amounting to at least 1 million SEK in earlier surveys, as well as new enterprises. The strata limits are described in annex.

The different sources used reflect one of the main problems with the survey, namely the lack of ahead knowledge about how the trade is distributed among enterprises.

SOME DEFINITIONS

The companies sampled take the trade figures requested from their book-keeping, which means that the figures reported are the revenues and costs from their foreign trade with services. In other words, the statistics is based on services performed and not on services paid for within a certain period. The trade is divided in about 20 kinds of services or transactions (see later).

The definitions of services used in the survey are made in a way which is intended to give a consistent picture of the outcome of the balance when added to the trade statistics of goods, shipping statistics and travel expenditure abroad.

To achieve this services are defined negatively, that is service trade is considered as everything that is not registered in the custom statistics (goods) and not been considered as capital transactions. The distinction between goods and services being reflected by the questionnaire, thus, is following the GATT-definitions.

TRANSACTIONS INCLUDED

The survey comprises the following kinds of transactions:

- o Financial income and expenses
- o Transport and forwarding enterprise revenues and costs from foreign land and air transports and from forwarding of foreign transports. All revenues are included, no matter whether payments were made from Sweden or from abroad.
- o Import commodity intermediary commissions, no matter whether payments were made from Sweden or from abroad.
- o Revenues and costs from sales and purchases of services.

- o Salaries and wages are included, but not specified in the survey
- o Contributions and gifts.
- o Insurance premiums and outcome.

Transactions included also can be defined as all enterprise transactions abroad except:

- o Commodity transactions
- o Commodity transports for enterprises other than transport enterprises.
- o Income and expenses from shipping, which are included in Shipping Statistics.
- o Purchases and sales of foreign exchange, which are included in statistics on foreign travel.
- o Capital transactions.

In the statistics on foreign trade, commodity transactions are quoted as the commodity value at the Swedish border. Thus, for import commodities, transport and insurance costs up to the Swedish border are included in the import value. For export commodities, transport and insurance costs within Sweden are included.

The Shipping Statistics measures Swedish shipping companies' income from shipping outside Sweden, their costs abroad and foreign shipping companies' costs in Sweden. Foreign travel refers to purchase and sales of foreign exchange in Sweden, exchange of Swedish notes outside Sweden and to the utilization of credit cards and travellers cheques abroad. Capital transactions refer to the raising and amortisation of loans, purchase and sales of securities, real estate investments, commercial credits and fund investments outside Sweden, for instance, in foreign banks.

FORMS AND DATA COLLECTION

Principally the data are gathered by forms, sent to the participating enterprises during the beginning of February. Foreign aviation branch offices and ferry companies, receive separate forms.

For specific enterprises, data are collected from other statistics as follows:

- o The Scandinavian Airlines Systems' (SAS) values are collected from its quarterly accounting reports to Statistics Sweden. In these reports, revenues and costs are divided into regions.
- o For construction enterprises, revenues and costs from contract works abroad are collected from a special annual survey: "Construction Abroad".
- o The insurance companies' exports and imports of insurances, interests and dividends are collected from the National Swedish Private Insurance Inspectorate's statistics.
- o Interest paid abroad and interest and dividends received from abroad for investment trusts are collected from the Credit Market Statistics.

Most enterprises have to report revenues from abroad and costs to abroad for the following items:

- interest
 - of which from foreign company groups
- dividends
 - of which from foreign company groups
- royalties,
- sales and purchases of patents
- provisions
- technical services and research contributions (gross)
- advertisement, PR, market research (gross)
- personal transports and travel arrangements
- administration and similar services received from (rendered to) foreign company group
- received and rendered subscriptions and gifts
- other services.

Road transport companies and forwarding companies are asked to report, besides revenues and costs from and to abroad, data about

- the share of transport distance performed abroad in relation to the total distance in foreign traffic.
- the share of the freight receipts related to transports from foreign places to Swedish destinations.

These data are required to make the survey export and import value consistent with the traditional ways to value commodity foreign trade in cif (imports) and fob (exports).

SURVEY ACCURACY

The sampling error was in 1986 estimated to $\pm 1,5$ billion SEK for an estimate of the balance with a 95 percent confidence interval for the net value. This presupposes that the sample estimates are approximately normally distributed.

If the samples from different years were independently drawn the confidence interval of the difference between the years would be $\sqrt{1,5} = 1,4 \times$ the confidence interval of the level error, that is in the year 1986 about 1,8 billion SEK. However, the samples are overlapped between the years which results in a smaller error.

Different studies have shown that the approximation of normal distribution is not reliable for exports and imports of services. This is due to the extreme skew distribution of the companies' trade values. A few companies have very large values, many have small values while most companies have no trade at all. The ahead knowledge, which the stratification is based upon, is not enough to eliminate large skewnesses of single strata.

As a result of this, so called outliers unexpectedly can pop up in strata with expected trade value to be relatively small or nil. For such strata smaller samples are drawn which implies higher expansion factors compared with strata with great expected trade. A limit is set to how high the values are allowed to be expanded. At present this limit is 500 million SEK. This method decreases the sampling error but adds a bias to the survey.

The non response fraction is relatively small. The correction made because of this amounts to about 0,5 percent of the total values.

Every form is examined both manually and by computer. In some cases the questionnaire data can be compared with data from other studies. Thus, dividends and interests to and from abroad can be compared with data about assets and liabilities held by the same company.

THE NEED OF STATISTICAL DATA ABOUT THE SERVICE TRADE

Although the introduction of the questionnaire has contributed to an improved situation about the value and the development of trade in services, the unaccountable foreign currency flow still remains.

The future method of measuring the trade in services by enterprises is at present somewhat uncertain. As mentioned before (see page 3) the Riksbank introduced in March 1987 an enlarged obligation to report export payments. This method has not yet been fully assessed. Still, it has raised the question if special surveys to enterprises are necessary.

An expert group which has studied the balance of current account statistics has discussed the possibility of balance of payment figures based on payments statistics only. Doing so, commercial credits must be estimated by special statistics. The expert group has, however, found that questionnaires about services have several advantages in comparison to payment statistics, advantages which are reason to remain them and even enlarge them somewhat.

The advantages are said to be:

- (1) The trade data come from the book-keeping of the enterprises which should guarantee much less netting than if payment statistics is to be used.
- (2) By measuring real gross flows of service trade the questionnaire data ought to fit better together with customs statistics on exports and imports of goods and also with national accounts data on production and consumption of services. This is important for example in connection with statistics asked for by GATT.

- (3) As mentioned earlier the enterprises are asked to report transactions not registered in any other statistics which should give comparability with other statistics.

One shortage with the present survey is the lack of country and currency data. Therefore the survey should be enlarged with country distribution and data should be compiled quarterly.

SUMMARY

The original purpose of the survey on trade in services was to fill the gap in the reporting of payments to the Riksbank for exports of services. The enquiry results have been put into the balance of payment statistics as correction items, in 1986 19,7 billion SEK.

In the National Accounts the enquiry results are used gross, distributed by kind of services, in the foreign transaction account.

One advantage of the survey is that the figures are based on book-keeping data and that they measure the gross flow of services. If the service products asked for are not directly available from the book-keeping, estimated figures are demanded. Compared with the foreign currency flow statistics the survey results ought to be more consistent and comparable with other statistics. Because of this they can be used in deeper economic analysis. The survey data are lacking of distribution among countries. A study on how to do this should be done.

The survey leads to many contacts between Statistics Sweden and the respondents. The respondents might find it difficult to report trade, when data are not directly found in the book-keeping and separation between Swedish/foreign is missing.

Interviews with the respondents in the end of the seventies revealed that they sometimes choose to omit rather than report data. Due to the fact that the sample of enterprises is more or less the same between the years and co-ordinated samples now are being used, some important learning effects have been achieved. The non-response rate is small. It was 7 per cent in 1986 corresponding to 0.5 per cent of the total value of the trade in services.

Statistics Sweden has several times proposed quarterly surveys, with no success. A feasibility study on quarterly surveys was made in 1983. The outcome was encouraging. The lack of quarterly data means that a correction item has to be put into the current balance. The correction is an estimate with values evenly distributed over months and quarters. No seasonal variations studies have been possible to make. The National Accounts is forced to use the statistics of foreign currency flow registrations as quarterly estimates.

After the introduction of a new reporting system on currency registrations (see page 3) in March 1987 - leading to better coverage of the service exports - the continuation of the survey has been questioned. At the same time the demand of trade data has increased in strength, among other things because of the GATT-negotiations.

Strata division 1986

- 1-3 Enterprises with exports and/or imports of services amounting to at least 1 million SEK in previous surveys. The previous reported values form the division of strata.
- 4 Foreign aviation branch offices in Sweden
- 5 Enterprises likely to have considerable exports and/or imports of services
- 6-8 Enterprises with direct inter-group company relations abroad and enterprises with foreign receivables or liabilities abroad amounting to more than 1 million SEK.
- 9-10 Enterprises belonging to an inter-group with direct inter-group company-relations abroad.
- 11-12 Travel agencies
- 13-15 Enterprises which operate within publishing, road trucking, shipping, forwarding, real estate, business services leasing, research and development, motion picture projection and distribution and finally wholesale trade
- 16-17 Enterprises within other branches exclusive of companies within insurance, banking, health and care, public administration and social care.