

## **Speeding up the production of foreign trade statistics**

### **1. Summary**

Quick statistics on foreign trade in goods concerns the measurement of the total value of monthly exports and imports and the monthly net trade balance. The results from the quick statistics are published on the 25th of each month in a press release and a Statistical Report. Information is published divided into EU and non-EU trade.

#### **1.1 Recommendations**

Other products should look at the method of using a sub-sample from the original survey to deliver quick statistics, although these may not necessarily have a maintained level of detail.

### **2. Introduction/Background**

The system of quick statistics was developed in 1994, with the first sample being taken in November 1994. Quick statistics were introduced in conjunction with the replacement of customs declarations in EU trade by Intrastat, as it was then no longer possible to produce quick statistics directly from the microdata, mainly because of the time delay in the reporting of information and data control. From August 1996 onwards, the specific collection of data in a shuttle questionnaire between enterprises and Statistics Sweden was discontinued. Instead, the system relies upon the sample enterprises respecting the response deadline and also that Statistics Sweden quickly manages the Intrastat reports included in the sample.

### **3. Aim/Task**

To make it possible to publish the total exports and imports data and the monthly net trade balance within 25 days of the end of the reference month.

### **4. Analysis/Inquiry/Explanation**

#### **4.1 Sample**

All Intrastat enterprises are divided into 15 groups for imports and 11 groups for exports, based on the size of the import/export value and unreliable/reliable respondents. A sample is taken from the lower size categories whilst the larger enterprise groups are surveyed in total. A new sample is taken twice a year, in May and November. 1 934 of a total 16 000 Intrastat enterprises are included in the most recent sample. In total,

1 240 import enterprises and 694 export enterprises are surveyed, of which 217 report both exports and imports. The number of new enterprises compared with previous samples is 171 for imports and 113 for exports.

Quick statistics is a stratified sample survey in which the samples for imports and exports are taken independently of each other. The enterprises' twelve-month value is used as the stratifying variable. The strata including the largest enterprises with regards to the twelve-month value are surveyed in total and an independent random sample is used in the other strata. The number of surveyed enterprises in the sample-based groups is decided by the stated accuracy standard of  $\pm$  SEK 500 million for the total population.

#### 4.2 Nonresponse

The number of enterprises that have not reported by the 19<sup>th</sup>, when the compilation begins, is around 400 (corresponding to around 20 %). All nonresponse enterprises are contacted by telephone as a reminder and information is collected by telephone or by fax. After this reminder, there are around 200 nonresponse enterprises (corresponding to around 10 %). No nonresponse is acceptable among the largest enterprises (the largest size category which is surveyed in total). If a value is missing here, this is usually imputed using the other respondent enterprises in the size category as a guideline.

	August		September		October	
Number of enterprises in quick statistics	1934	100%	1934	100%	1934	100%
Nonresponse after automatic and manual entry	410	21%	380	20%	450	23%
Nonresponse after automatic and manual entry	190	10%	180	9%	170	9%

Table 1. Nonresponse in quick statistics during certain months in 2002.

#### 4.3 Accuracy standards

The sample size should be sufficient to meet the stated accuracy standard of SEK 500 million (+ or -) for the respective total population. This would indicate a maximum net trade balance error of SEK 1 billion. This applies only if nonresponse is low and if all enterprises in the largest size category have given a response.

#### 4.4 Adjustments

Data from the current and the previous month are taken from the quick statistics system. Data from earlier months are replaced by data from the Intrastat system. Adjustments are generally made for the five previous months. Quick statistics normally underestimates both total imports and total exports. The net trade balance is, however, fairly closely estimated. The size of the adjustments to the net trade balance during the last six months has varied between SEK 0 and SEK 1 billion. The adjustments primarily relate to measurement error, but also nonresponse and sample error.

<b>Exports 2002</b>	Quick-1	Quick-2	Detail-1	Detail now	Diff. quick 1- detail now	Diff. quick 1- detail 1
January	64.2	64.5	64.7	64.8	-0.6	-0.5
February	63.7	64.0	64.1	63.9	-0.2	-0.4
March	67.6	68.1	68.0	68.3	-0.7	-0.4
April	69.6	69.9	70.3	70.5	-0.9	-0.7
May	69.2	69.3	69.0	69.3	-0.1	0.2
June	65.4	65.2	65.4	66.4	-1.0	0
July	56.2	56.1	55.6	55.6	0.6	0.6
August	56.2	56.5	57.7	57.8	-1.6	-1.5
September	66.4	66.7	66.6	67.0	-0.6	-0.2
October	70.5	70.5	71.3	71.3	-0.8	-0.8

Table 2<sup>1</sup>. Comparison between quick and detailed statistics, SEK billions. Exports

<b>Imports 2002</b>	Quick-1	Quick-2	Detail-1	Detail now	Diff. quick 1- detail now	Diff. quick 1- detail 1
January	51.7	52.1	51.7	52.6	-0.9	0
February	51.5	51.3	51.6	51.6	-0.1	-0.1
March	54.8	55.5	55.9	56.3	-1.5	-1.1
April	56.0	56.4	56.5	56.8	-0.8	-0.5
May	52.0	52.2	52.2	52.5	-0.5	-0.2
June	51.4	51.9	51.9	51.7	-0.3	-0.5
July	44.8	45.6	45.3	45.4	-0.6	-0.5
August	49.0	49.3	49.5	49.6	-0.6	-0.5
September	55.1	55.5	55.5	55.5	-0.4	-0.4
October	59.1	59.2	59.3	59.3	-0.2	-0.2

Table 3. Comparison between quick and detailed statistics, SEK billions. Imports

<sup>1</sup> Explanation of table headings

quick-1 = the first import and export values from the quick statistics

quick-2 = import and export values from the quick statistics, one month later

detail-1 = the first import and export values from the detailed statistics

detail now = the most recent import and export values from the detailed statistics

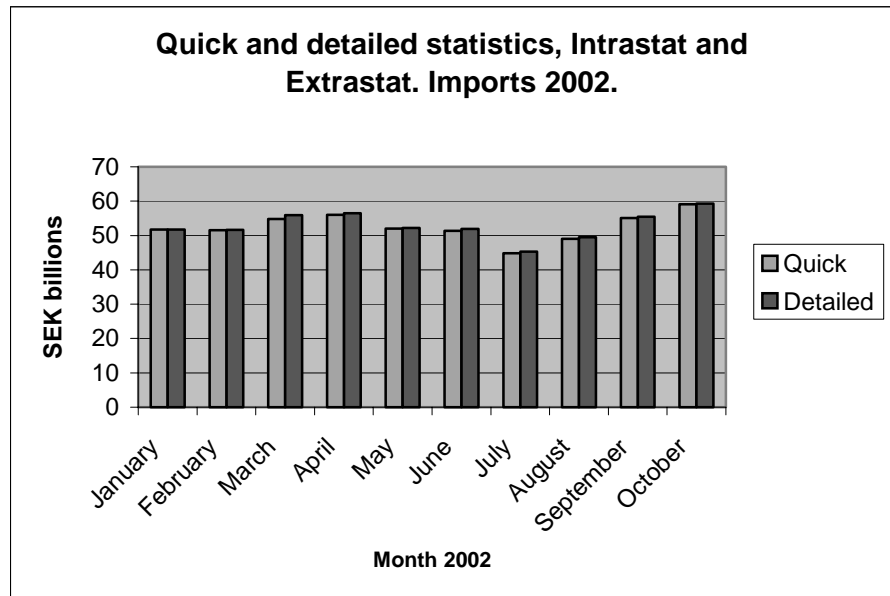


Figure 1. Comparison quick and detailed statistics. Imports

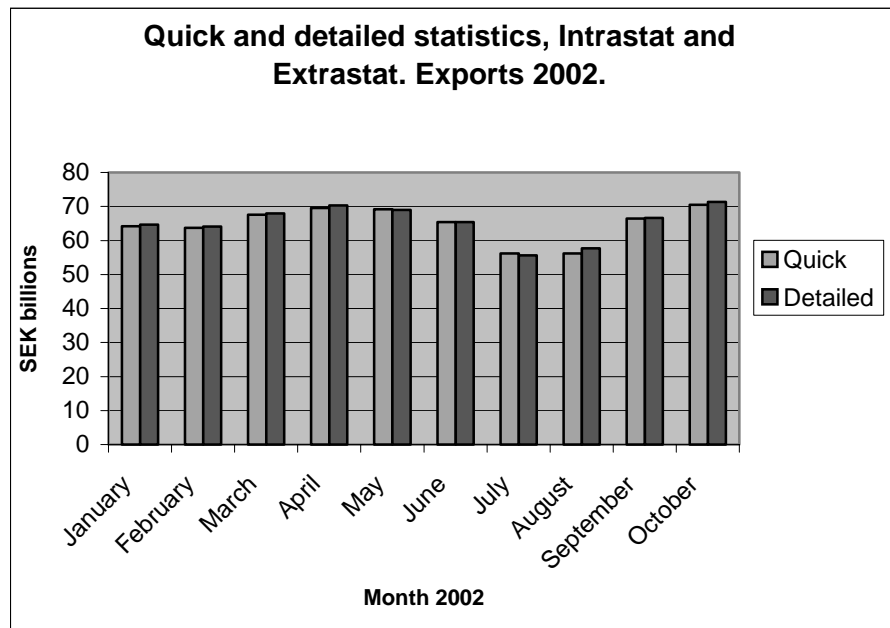


Figure 2. Comparison quick and detailed statistics. Exports

## 5. Conclusions

The publication of the detailed foreign trade statistics is carried out 70 days after the end of the measurement period. Statistics users both demand and value the presentation of a reasonable estimation on a total level after only 25 days. The net trade balance gives a good picture of the total exports and imports, despite the rough divisions<sup>2</sup> in the quick statistics.

## 6. Risks

The data given by enterprises in the quick statistics often contains errors. The value of total imports and exports can be either too high or too low. Some of the errors are detected during the controls carried out before publication but, because there is so little time for checking, it is unavoidable that a number of errors are only corrected later when the detailed data from the enterprises is received and checked.

## 7. Resources

Two responsible officers for quick statistics alternate and are responsible for the production and publication of the quick statistics every other month. The quick statistics processing begins around the 18th and is completed around the 25th every month, i.e. one week's production time. The responsible officer generally works full-time with the quick statistics during this week. In addition, 8-10 persons are required to ring and remind enterprises and to collect data via telephone and fax for around three days every month.

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<sup>2</sup> The detailed statistics are divided into *all* countries. The quick statistics are only divided into *EU countries* and *Other countries*.