1953 eurostat 2003

Foreign trade statistics — Quality report

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Introduction

0.1 Foreign trade statistics

Foreign trade statistics measure goods traded between Member States (Intrastat) and goods traded by Member States with third countries (Extrastat). They are the official source of information about Member States and EU imports, exports and trade balance. Community legislation in the field of foreign trade statistics ensures that the statistics are based on precise legal texts, directly applicable in the Member States and on definitions and procedures which, to a large extent, have been harmonised.

The Intrastat system came into operation on 1 January 1993. It provides for direct collection of information from companies. It is based on a close link with the VAT system relating to intra-EU trade. The application of a threshold system means that the majority of traders are either exempt from submitting any declarations, or that the information, which they have to provide, is significantly reduced.

Declaring parties provide the statistical information on Extrastat while completing the customs formalities.

The foreign trade statistics are an instrument of primary importance for numerous public- and private-sector decision-makers. For example, foreign trade statistics:
- enable Community authorities to prepare multilateral and bilateral negotiations within the framework of the common commercial policy;
- enable Community authorities to evaluate the progress of the Single Market and the integration of EU economies;
- help EU companies to do market research and define their commercial strategy;
- constitute an essential source of information for balance of payments statistics, national accounts and economic studies.

This list, which is not exhaustive, demonstrates the diversity of the users and their needs.

0.2 What is quality?

Quality in statistics is assumed to rely on elements agreed by Eurostat and Member States and includes the following.
- <u>Timeliness</u> deals with: the publication calendar, reference period, etc.
- <u>Accuracy</u> deals with: exclusions, thresholds, non-response, adjustments, controls and corrections, confidentiality, etc.
- <u>Accessibility</u> deals with: availability, ease of access to data, different formats and conditions of data distribution, etc.
- <u>Clarity</u> deals with: ensuring data is adequately documented, assistance in using and interpreting the data, etc.
- <u>Comparability</u> deals with: conceptual differences between sets of foreign trade statistics over space, and over time,
- <u>Coherence</u> deals with: to what extent statistics originating from other sources (such as balance of payments, national accounts, etc.) are compatible with foreign trade statistics.

0.3 Quality report

The purpose of this quality report is to provide the users of the European Union foreign trade statistics with a tool for assessing the quality of these statistics. This report is for public use. It provides a summary of the main quality indicators mentioned above. The quality report will be updated regularly and will include quality trends. It should be also noticed that comparable quality reports in several Member States (Belgium, Germany, Greece, Italy, Luxembourg, Austria, the Netherlands, the United Kingdom and Sweden) are available for the year 2000.

The National Fundamentals Database (NFD) has been also set up in 2001. It stores and updates the information provided by the Member States in their quality reports or contained in other documents related to the quality of the external trade statistics. This quality report is based on information included in the updated NFD.

We are of course open to comments on the part of the users.
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1 Timeliness

According to the Commission Regulation (EC) No 1917/2000, Member States shall transmit the monthly results of their Extra-trade statistics to the Commission (Eurostat) no later than six weeks after the end of the reference period.

For Intrastat the production of data takes longer. In order to ensure optimum satisfaction of user needs and take account of data collection and processing requirements, a distinction is made between the publication of overall results and detailed results. According to the Commission Regulation (EC) No 1901/2000, Member States shall forward the monthly results of Intra-trade to the Commission (Eurostat) no later than eight weeks, in the case of data broken down by Member States, and no longer than ten weeks, in the case of detailed results.

Table 1: Transmission of detailed results - Annual average delay (positive) or advance (negative) in working days after the legal deadline.
(Legal Delay: 6 weeks after the reference period for Extra-EU trade and 10 weeks for Intra-EU trade)

	Detailed results					
	Intra-trade			Extra-trade		
MEMBER STATES	1999	2000	2001	1999	2000	2001
Belgium	-5	-5	-6	-4	-5	-4
Denmark	5	0	-20	-5	0	0
Germany	-9	-13	-15	12	7	-2
Greece	8	6	20	28	26	63
Spain	-6	-6	-20	14	14	2
France	-10	-17	-21	10	3	1
Ireland	33	10	3	2	-5	-2
Italy	7	3	0	9	3	-1
Luxembourg	-4	-9	-8	8	4	7
Netherlands	-8	-11	-15	5	-2	-3
Austria	5	-2	-6	8	1	0
Portugal	7	5	-1	1	2	-3
Finland	-3	-7	-9	-1	-4	-4
Sweden	10	4	-3	23	5	-3
United Kingdom	-7	-10	-12	-14	-16	-18
Average	*1.5*	*-3.5*	*-7.5*	*6.4*	*2.2*	*2.2*

2 Accuracy

The aim of this section is not necessarily to provide figures on the accuracy of foreign trade statistics, but more realistically to inform users about the problems faced and existing limitations in ensuring accurate information. Where measures of accuracy are known, they are included. This section also informs users of the work being undertaken to improve accuracy, either nationally or in the EU forum.

2.1 Accuracy characteristics

2.1.1 Exclusions

There are certain items that are excluded from the official foreign trade statistics, e.g. items that are of no commercial value.

Intra-EU trade statistics do not cover arrivals and dispatches effected by private individuals or small enterprises, which are exempt from periodic tax declarations. A list of exclusions can be found in Commission Regulation (EC) No 3046/92 for Intrastat and No 1917/2000 for Extrastat.

2.1.2 Levels of thresholds

Intrastat

Thresholds are set independently by Member States, in order to gather statistics that meet the coverage criteria required by Intrastat regulations. Each Member State sets these thresholds for both arrivals and dispatches in October before the year of trade. The thresholds serve to reduce the burdens on businesses. Companies below the threshold do not have to declare at all, or they are allowed to send in a simplified declaration.

Table 2: <u>Assimilation thresholds</u> in EUR (No declaration below the threshold).

	Arrivals			Dispatches		
	2000	**2001**	**2002**	**2000**	**2001**	**2002**
Belgium	245,500	250,000	250,000	245,500	250,000	250,000
Denmark	199,500	202,000	335,998	332,500	336,000	335,998
Germany	200,000	200,000	200,000	200,000	200,000	200,000
Greece	30,500	29,000	29,000	45,500	44,000	44,000
Spain	96,162	96,162	100,000	96,162	96,162	100,000
France	38,000	100,000	100,000	38,000	100,000	100,000
Ireland	190,461	190,461	190,500	634,869	634,869	636,000
Italy *	102,500	102,500	103,291	154,000	154,000	154,937
Luxembourg	103,000	103,000	100,000	103,000	103,000	100,000
Netherlands	227,000	225,000	225,000	227,000	225,000	225,000
Austria	145,000	145,000	200,000	145,000	145,000	200,000
Portugal	60,000	60,000	60,000	85,000	85,000	85,000
Finland	100,000	100,000	100,000	100,000	100,000	100,000
Sweden	172,500	172,500	156,286	172,500	172,500	156,286
United Kingdom	382,294	374,674	374,168	382,294	374,674	374,168
EU 15 (Max)	**382,294**	**374,674**	**374,168**	**634,869**	**634,869**	**636,000**
EU 15 (Min)	**30,500**	**29,000**	**29,000**	**38,000**	**44,000**	**44,000**
EU15 (weighted average)	**174,836**	**185,416**	**189,596**	**206,776**	**217,003**	**213,793**

Below assimilation thresholds, Italy collects quarterly and annual declarations instead of mensal declarations

Table 3: <u>Simplification thresholds</u> in EUR (Simplified declaration below the threshold).

	Arrivals			Dispatches		
	2000	**2001**	**2002**	**2000**	**2001**	**2002**
France	228 674	228 700	230 000	457 347	457 400	460 000
Luxembourg	371 840	368 500	375 000	371 840	368 500	375 000

Table 4: <u>Statistical value</u> thresholds (EUR) in <u>Intra-EU trade</u> (No statistical value declared below the threshold).

	Arrivals			Dispatches		
MEMBER STATES	**2000**	**2001**	**2002**	**2000**	**2001**	**2002**
Belgium	All PSIs exempted	All PSIs exempted	25,000,000	All PSIs exempted	All PSIs exempted	25,000,000
Denmark	All PSIs exempted	All PSIs exempted	All PSIs exempted	All PSIs exempted	All PSIs exempted	All PSIs exempted
Germany	7,669,339	8,671,698	10,700,000	10,225,785	12,779,259	15,300,000
Greece	927,054	1,266,000	1,266,000	1,780,435	1,708,000	1,708,000
Spain	6,010,121	6,010,121	6,000,000	6,010,121	6,010,121	6,000,000
France	2,286,735	2,300,000	2,300,000	2,286,735	2,300,000	2,300,000
Ireland	5,078,939	5,078,952	5,087,000	38,092,046	38,092,142	38,154,000
Italy	1,807,599	1,807,599	1,807,000	3,615,198	3,615,198	3,615,198
Luxembourg	2,478,935	61,451	61,973	4,462,083	110,612	111,552
Netherlands	All PSIs exempted	All PSIs exempted	All PSIs exempted	All PSIs exempted	All PSIs exempted	All PSIs exempted
Austria	3,633,642	3,633,642	4,000,000	3,633,642	3,633,642	4,000,000
Portugal	3,541,465	4,190,000	4,240,000	5,337,137	5,886,000	6,484,000
Finland	6,727,528	6,727,528	8,500,000	16,818,821	16,818,821	17,000,000
Sweden	6,812,360	7,104,635		11,353,934	11,841,060	
United Kingdom	All PSIs exempted	All PSIs exempted	21,679,288	All PSIs exempted	All PSIs exempted	21,679,288
EU 15 (Max)	**7,669,339**	**7,669,339**	**25,000,000***	**38,092,046**	**38,092,142**	**38,154,000***
EU 15 (Min)	**927,054**	**61,451**	**61,973***	**1,780,435**	**110,612**	**111,552***
EU15 (weighted average)	**4,703,374**	**4,729,563**	**9,527,741***	**8,396,441**	**9,365,237**	**12,926,325***

PSI = Provider of Statistical Information
* Calculated without the Swedish result

Extrastat

The statistics on extra-EU trade comprise all merchandise traded between the Member States and Third Countries. Until 2001, according to Commission Regulation (EC) 1917/2000 statistical offices might process declarations exceeding the statistical threshold of 800 Euro or 1.000 kg. Thresholds raised to 1.000 Euro or 1.000 kg. from January 2002 (Commission regulation n°1669/2001).

2.1.3 Adjustment rate for trade below threshold and non response

Intrastat

After the annual thresholds have been set, estimates should be made for the trade below threshold. Statistical practices are different among the Member States, but are most often based upon the use of the fiscal information. However, not all the Member States estimate the "below the threshold trade" and "Non-response". Actually, five Member States (Greece, Spain, France, Italy and Portugal), which represent in 2001 about 33% of the total Intra-EU trade (arrivals and dispatches) send figures to Eurostat without including adjustments on below the thresholds transactions. And six Member States (Greece, Spain, France, Finland, Italy and Portugal) - 34% of the total Intra-EU trade in 2001- send figures to Eurostat without including adjustments on non-responses. It may be pointed out that the levels of the thresholds in these Member States are among the lowest within the European Union.

Table 5: Adjustments for the <u>below the thresholds in Intra-EU trade</u>

| | | % of value below the threshold estimated (last known value) | | | | | |
| | Method of adjustment | Arrivals | | | Dispatches | | |
MEMBER STATES		1998	1999	2000	1998	1999	2000
Belgium	Constant sample method / Adjustment based on VAT data	2.3%	1.7%	1.3%	1.0%	1.0%	0.6%
Denmark	Not specified	2.5%	2.6%	*n.a.*	2.1%	2.0%	*n.a.*
Germany	Adjustment based on VAT data	1.5%	2.7%	2.7%	0.8%	1.5%	1.5%
Greece	No adjustment	-	-	-	-	-	-
Spain	No adjustment	-	-	-	-	-	-
France	No adjustment	-	-	-	-	-	-
Ireland	Adjustment based on VAT data / Holt-Winter's method	3.5%	3.3%	3.4%	1.6%	1.4%	1.7%
Italy	No adjustment	-	-	-	-	-	-
Luxembourg	Adjustment based on historical figures	1.2%	*n.a.*	*n.a.*	0.3%	*n.a.*	*n.a.*
Netherlands	Adjustment based on VAT data	*n.a.*	*n.a.*	1.7%	*n.a.*	*n.a.*	0.8%
Austria	Adjustment based on VAT data	2.7%	3.5%	2.4%	0.7%	0.9%	0.8%
Portugal	No adjustment	-	-	-	-	-	-
Finland	Adjustment based on VAT data	2.4%	3.1%	3.5%	1.2%	1.1%	0.9%
Sweden	Adjustment based on VAT of just-above-the-threshold data	4.9%	4.7%	3.7%	3.1%	2.4%	1.7%
United Kingdom	Adjustment based on VAT of just-above-the-threshold data	2.7%	2.7%	2.7%	2.7%	2.8%	2.5%
Weighted average of the impact of the adjustment		**2.2%**	**2.4%**	**2.3%**	**1.2%**	**1.6%**	**1.2%**
Weighted average of the Member States adjusting Intra-EU trade		**64%**	**64%**	**63%**	**68%**	**69%**	**69%**
Weighted average of the Member States not adjusting Intra-EU trade		**36%**	**36%**	**37%**	**32%**	**31%**	**31%**

Table 6: Adjustments for <u>non-response in Intra-EU trade</u>

MEMBER STATES	Method of adjustment	% of non-response estimated (last known value)					
		Arrivals			Dispatches		
		1998	1999	2000	1998	1999	2000
Belgium	Constant sample method	2.2%	2.0%	2.1%	1.7%	0.7%	0.8%
Denmark	Adjustment based on VAT data	9.7%	10.0%	*n.a.*	4.6%	5.7%	*n.a.*
Germany	Adjustment based on VAT data	12.5%	4.9%	4.4%	5.2%	1.0%	0.6%
Greece	No adjustment	-	-	-	-	-	-
Spain	No adjustment	-	-	-	-	-	-
France	No adjustment	-	-	-	-	-	-
Ireland	Adjustment based on VAT data	1.1%	1.4%	0.9%	0.7%	0.8%	0.4%
Italy	No adjustment	-	-	-	-	-	-
Luxembourg	Overall adjustment for below threshold trades and non-response	-	-	-	-	-	-
Netherlands	Imputation method using historical data & adjustment method using weighting	*n.a.*	17.0%	19.0%	*n.a.*	12.0%	13.0%
Austria	Adjustment based on VAT data	2.2%	1.8%	1.3%	3.2%	2.1%	0.1%
Portugal	Overall adjustment for below threshold trades and non-response	-	-	-	-	-	-
Finland	No adjustment	-	-	-	-	-	-
Sweden	Adjustment based on VAT data	3.6%	3.8%	2.7%	1.4%	1.8%	1.3%
United Kingdom	Constant sample method	0.5%	0.9%	1.0%	0.7%	0.7%	0.7%
Weighted average of the impact of non-response		5.3%	5.1%	4.7%	2.5%	3.1%	2.9%
Weighted average of the Member States adjusting non-response		62%	62%	62%	67%	67%	68%
Weighted average of the Member States not adjusting non-response		38%	38%	38%	33%	33%	32%

According to Table 5 and Table 6, the shares of adjustments are bigger on arrivals than on dispatches. This asymmetrical impact added with the existence of Member States not adjusting figures implies that the arrivals at EU level are likely to be underestimated in comparison with the dispatches.

Finally, information in Table 6 deals with annual figures, but it may be pointed out that the problem of accuracy caused by "non-response" is higher at monthly level than at annual level (e.g. "non-response" at monthly level includes missing declarations that would be included later at annual level).

Extrastat

The problem of non-response for Extra-EU trade should theoretically not exist since extra trade statistics are based on customs declarations.

2.1.4 Estimation of statistical value

Trade figures are published as "statistical value". This is the value of goods at the border of the declaring country: FOB value (free on board), for exports/dispatches or CIF value (cost, insurance and freight), for imports/arrivals. It may differ from the amount agreed on the sales agreement (the invoice value) as a result of the delivery terms used in the transaction.

As tables 7 and 8 show, some Member States collect statistical value from the trader (more often in Extra-EU trade than in Intra-EU trade), other Member States collect invoice value and estimate the statistical value for about half of them in Intra-EU trade. And, finally, some Member States collect invoice value, but do not carry out adjustment to estimate the statistical value. This is the case for 1/3 of Member States in Intra-EU trade and 1/5 of them in Extra-EU trade. Traders' calculation and Member States' differing methodology may cause differences in the published figures.

Table 7: Methods adopted for estimating the statistical value in Intra-EU trade

	Methods of adjustment
Belgium	No adjustment - use of invoice value
Denmark	No adjustment
Germany	Coefficient, computed from above the threshold data, correcting the invoice value
Greece	No adjustment - use of statistical value
Spain	No adjustment - use of invoice value
France	Not specified
Ireland	Correcting coefficient computed from historical data
Italy	Coefficient, computed from above the threshold data, correcting the invoice value
Luxembourg	Coefficient, computed from above the threshold data, correcting the invoice value
Netherlands	Correcting coefficient computed by special survey
Austria	No adjustment - use of invoice value
Portugal	No adjustment
Finland	Coefficient, computed from above the threshold data, correcting the invoice value
Sweden	Correcting coefficient computed by special survey
United Kingdom	Correcting coefficient computed by special survey

Table 8: Methods adopted for estimating the statistical value in Extra-EU trade

	Method of adjustment
Belgium	No adjustment - use of invoice value
Denmark	Not specified
Germany	No adjustment - Statistical value is to be declared by all transactors in EXTRASTAT
Greece	Not specified
Spain	No adjustment - Statistical value is to be declared by all transactors in EXTRASTAT
France	Not specified
Ireland	No adjustment - use invoice value
Italy	No statistical value threshold and no adjustment
Luxembourg	No adjustment - use invoice value
Netherlands	Statistical value is computed through correcting coefficient
Austria	No adjustment - Statistical value is to be declared by all transactors in EXTRASTAT
Portugal	No adjustment - Statistical value is to be declared by all transactors in EXTRASTAT
Finland	No adjustment - Statistical value is to be declared by all transactors in EXTRASTAT
Sweden	No adjustment - Statistical value is to be declared by all transactors in EXTRASTAT
United Kingdom	Traders provide statistical value or at least all relevant info to calculate the statistical value

2.1.5 Revisions

Trade figures can be updated several times after the first publication.

A study on the updating process of Intra and Extra-EU trade data shows that, over the 1994-2000 period, updates affecting the monthly statistics are considerable and affect the quality of data. The monthly average at Member State level may exceed 20% over a year for Intra trade and 15% for Extra-EU trade.

Globally, no decrease in the updates is recorded over the period of interest for all the Member States. However, the updating process has a disparate effect on arrival and dispatch statistics according to the trade partner considered. For a high number of Member States the arrival updates are higher than the dispatch updates in Intra-EU trade and the trend is reversed for half of the Member States in Extra-EU trade.

The average extent of the revision on the EU aggregates over the period 1994-2000 is included between 5% and 10% in Intra trade, whatever the flow, and between 2% and 5% in Extra-EU trade, whatever the flow.

The updating process of Intra and Extra-EU statistics thus induces uncertainty and most likely a lack of accuracy, particularly concerning monthly figures and short-term analysis of the development of the external trade statistics.

The last figures related to the impact of the revisions are obtained directly from Member States through the questionnaire on external trade statistics. The results are presented in the table 9 below:

Table 9: Impact of revisions in Intra and Extra-EU trade

	% of change between the 1st and final results (last update available)											
	Intra-EU trade						Extra-EU trade					
	Arrivals			Dispatches			Imports			Exports		
	1998	1999	2000	1998	1999	2000	1998	1999	2000	1998	1999	2000
Belgium	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Denmark	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Germany	3.00%	3.55%	-1.95%	0.81%	2.54%	0.00%	-0.02%	-0.11%	0.01%	0.18%	-0.19%	0.25%
Greece	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Spain	4.32%	1.82%	2.72%	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
France	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Ireland	1.60%	2.00%	2.30%	1.60%	1.80%	2.20%	0.00%	1.50%	0.40%	0.20%	1.00%	0.00%
Italy	1.96%	2.73%	1.68%	2.17%	3.64%	2.25%	0.01%	0.01%	0.16%	0.15%	0.07%	0.05%
Luxembourg	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Netherlands	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Austria	0.30%	1.70%	1.20%	0.80%	1.50%	1.00%	-1.30%	0.03%	0.40%	0.04%	0.66%	0.44%
Portugal	5.30%	4.50%	5.90%	3.00%	3.20%	5.70%	-0.20%	0.10%	0.10%	-0.20%	0.00%	-0.10%
Finland	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Sweden	n.a.	0.90%	1.20%	n.a.	0.40%	0.70%	n.a.	-0.40%	-0.10%	n.a.	0.00%	0.00%
United Kingdom	10.20%	11.80%	8.50%	8.30%	11.30%	8.50%	0.04%	0.00%	-0.08%	0.72%	0.47%	0.17%

2.2 Controls using "primary" information/sources

2.2.1 General information

The information contained in this section may provide further understanding to users, of the volumes involved and allow them to better appreciate the work involved in providing foreign trade statistics.

Table 10: General information on number of declarations

	Arrivals			Dispatches		
	1998	1999	2000	1998	1999	2000
EU15 monthly average of number of lines declared	472,714	486,305	516,662	805,915	814,416	839,615
EU15 average % of electronic declarations*	67%	71%	74%	77%	82%	83%
EU15 average % of value declared electronically	58%	59%	63%	67%	64%	68%

Source used to calculated the averages: IDEP questionnaire.

* Member States are encouraging traders to submit their declarations electronically. Generally, where electronic declarations are linked to the trader's system, the incoming data is judged to be more accurate. This facility can also reduce the burdens placed on businesses and reduce the costs to Member States of inputting the data.

2.2.2 Information on controls and errors

Controlling and correcting errors is resource intensive and Member States need to make judgements about when to make a correction. Member States use different criteria and employ different methodologies, this can be seen as discrepancies when comparing two Member States' figures.

At the level of the declarations, controls can be broadly classified as:
- basic controls: this means checks on the *validity* of data and normally concerns all the variables collected. A validity error is when data is not correct therefore it may cause processing problems, it cannot be included in the statistical analysis and it must be removed or corrected. Examples of this kind of errors are incorrect or missing codes, missing values in the declarations, character data in numeric field and viceversa, etc. All Member States use reference tables with an automatic process to control these errors.
- complex controls: this means checks on the *accuracy* of data and assesses all possible errors associated with the data. The data is valid according to the previous criterion but it is possibly incorrect therefore it can be processed but, if included, it will distort the statistical analysis. The declaration for example is inconsistent internally or with what was submitted before. The methods used by the Member States consist in checking one variable against the other within the declaration or between declarations. The differences are in the kind of ratios checked.

Similar controls can in addition be carried out by the Member States at a more aggregated level, for example at the detail of product requested by Eurostat in the Regulations.

At Eurostat level, consistency checks (detection of wrong codes, consistency of the different level of aggregation, etc…) are made before publication. In addition, Eurostat has implemented a method for the detection of outliers based on ratios between three published figures (net mass, value and quantity).

2.3 Controls using "secondary" information/sources

Member States normally check their intra-EU data at least with the data from VAT. Other sources could also be used, for example Balance of Payments, statistics made by a particular professional federation, data from business registers, etc. The purpose of these secondary sources is to provide supplementary information to the reported trade data. This secondary information can be used in checking the credibility of the data or as a verification of traders' declarations.

At Eurostat level, no control using secondary information is undertaken. Nevertheless, mirror exercises that are regularly made, provide Eurostat with an estimate of the margin of error related to intra-EU flows. Since the implementation of Intrastat in 1993, systematically dispatches are higher than arrivals, whereas, arrivals should theoretically be slightly higher (1.5%-2%) than dispatches.

2.4 Confidentiality

All Member States have their own procedures and rules for guaranteeing confidentiality. Traders can have their trade figures suppressed if the published figures would enable them to be identified. Aggregating data before publication can safeguard information relating to a trader or trading activity.
Whether partly or completely suppressed, full data for suppressed commodity codes is re-introduced in higher level aggregations (i.e. CN2) where it is no longer possible to identify or deduce data for an individual commodity code (i.e. CN8). This allows complete data to be available to users but under broad commodity headings or at grand total level.

We distinguish two types of confidentiality: the partner confidentiality and the product confidentiality.
- Partner Confidentiality: if a Member State wishes to conceal the destination or the source or origin of a product, the code of the partner country is replaced by a 'secret country code': 978 for intra community trade (975 up to 1993), 979 for extra community trade (976 up to1993).
- Product confidentiality: a Member State may also decide on the other hand to allocate all or part of the trade to a confidential product code and in doing so, to "hide" the nature of the commodity involved.

These two types of confidentiality can be applied jointly and therefore, there are three cases of confidentiality: Partner confidentiality only, Product confidentiality only and, Partner and Product confidentiality (Total confidentiality).
The levels of these three cases of confidentiality have been assessed for year 2000. The figures are presented in the following table 11. According to this table, partner confidentiality as well as product confidentiality seems to affect rather more the dispatches/exports than the arrivals/imports.

Table 11:Impact of confidentiality on EU trade – <u>Figures on year 2001</u>

	Intra trade						Extra trade					
	Arrivals			Dispatches			Import			Export		
MS	Confidential trade with secret partner only	Confidential trade with secret product only	Confidential trade with secret partner & secret product	Confidential trade with secret partner only	Confidential trade with secret product only	Confidential trade with secret partner & secret product	Confidential trade with secret partner only	Confidential trade with secret product only	Confidential trade with secret partner & secret product	Confidential trade with secret partner only	Confidential trade with secret product only	Confidential trade with secret partner & secret product
Belgium	0.00%	0.34%	0.00%	0.00%	3.51%	0.01%	0.00%	1.31%	0.03%	0.00%	4.97%	0.47%
Denmark	1.27%	0.00%	0.36%	4.63%	1.6%	2.41%	2.00%	1.89%	0.44%	8.16%	0.60%	4.12%
Germany	1.39%	0.04%	0.01%	0.97%	1.78%	0.81%	4.11%	0.01%	0.07%	0.93%	2.11%	0.58%
Greece	0.00%	0.41%	0.00%	0.00%	3.23%	0.00%	0.00%	0.34%	0.00%	0.00%	0.86%	0.00%
Spain	0.00%	0.29%	0.00%	0.00%	0.23%	0.00%	0.00%	0.42%	0.00%	0.00%	1.45%	0.00%
France	0.00%	0.00%	0.00%	0.00%	1.95%	0.04%	0.01%	0.00%	0.00%	0.00%	1.75%	0.01%
Ireland	0.00%	0.04%	0.00%	0.00%	0.10%	0.00%	0.00%	0.00%	0.16%	0.00%	0.00%	0.03%
Italy	0.00%	0.00%	0.94%	0.00%	0.00%	0.79%	0.00%	0.00%	7.36%	0.00%	0.00%	0.76%
Luxembourg	0.00%	0.00%	2.69%	0.00%	0.00%	1.37%	0.00%	0.00%	0.87%	0.00%	0.00%	3.53%
Netherlands	1.64%	0.3%	0.09%	5.44%	2.54%	0.23%	7.89%	0.52%	0.26%	7.86%	4.00%	0.59%
Austria	0.99%	0.03%	0.00%	2.40%	5.79%	0.01%	3.96%	0.15%	0.00%	2.93%	6.09%	0.04%
Portugal	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.67%
Finland	0.12%	0.00%	0.00%	0.32%	0.00%	0.06%	0.19%	0.00%	0.00%	0.05%	0.00%	0.02%
Sweden	0.00%	0.00%	0.19%	0.00%	0.00%	3.34%	0.00%	0.00%	0.34%	0.00%	0.00%	3.20%
United Kingdom	0.27%	2.03%	0.00%	0.18%	4.48%	0.00%	0.86%	6.32%	0.00%	0.62%	6.17%	0.00%
European Union	0.52%	0.34%	0.13%	1.12%	2.06%	0.45%	2.12%	1.32%	0.89%	1.04%	2.42%	0.54%

The evolution of the total confidentiality over the last years is presented in table 12.

Table 12: Impact of the confidentiality on EU trade (<u>total impact</u>)

	Intra trade								Extra trade							
	Arrivals (%)				Dispatches (%)				Import (%)				Export (%)			
MS	1998	1999	2000	2001	1998	1999	2000	2001	1998	1999	2000	2001	1998	1999	2000	2001
Belgium		0.20%	0.71%	0.34%		3.57%	3.54%	3.52%		1.50%	1.32%	1.34%		6.39%	5.84%	5.44%
Denmark	1.62%	1.34%	1.29%	1.63%	9.83%	9.46%	9.29%	8.63%	2.55%	2.06%	1.63%	4.33%	12.84%	13.12%	12.74%	12.87%
Germany	1.27%	9.42%	1.26%	1.42%	4.06%	7.10%	3.84%	3.36%	3.13%	2.52%	3.59%	4.20%	3.89%	4.26%	3.91%	3.62%
Greece	0.33%	0.33%	0.36%	0.43%	1.93%	2.12%	5.83%	3.23%	1.31%	1.02%	0.56%	0.34%	0.91%	1.02%	0.83%	0.86%
Spain	0.08%	0.00%	0.32%	0.29%	0.61%	0.55%	0.22%	0.23%	0.55%	0.61%	0.36%	0.42%	1.97%	1.91%	1.47%	1.45%
France	0.02%	0.01%	0.00%	0.00%	2.22%	2.11%	2.11%	2%	0.01%	0.00%	0.00%	0.00%	2.16%	1.96%	1.88%	1.76%
Ireland	0.12%	0.05%	0.06%	0.04%	0.23%	0.00%	0.15%	0.10%	0.34%	0.20%	0.04%	0.16%	0.48%	0.00%	0.00%	0.03%
Italy	0.72%	0.99%	1.02%	0.94%	0.76%	0.57%	0.80%	0.79%	5.32%	5.40%	7.32%	7.36%	0.76%	0.89%	0.88%	0.76%
Luxembourg		3.25%	3.15%	2.69%		1.60%	1.32%	1.37%		0.72%	1.09%	0.79%		0.12%	0.00%	3.53%
Netherlands	1.82%	2.04%	2.36%	2.03%	7.41%	7.61%	8.54%	8.21%	5.70%	6.30%	9.26%	8.67%	11.39%	12.49%	12.84%	12.40%
Austria	0.61%	0.51%	0.64%	1.02%	9.52%	8.66%	8.17%	8.20%	4.00%	3.90%	4.66%	4.11%	11.70%	10.27%	9.16%	9.06%
Portugal	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.09%	0.08%	0.00%	0.00%	0.00%	0.00%	0.01%	0.01%	0.00%	0.67%
Finland	0.03%	0.00%	0.13%	0.12%	0.38%	0.40%	0.30%	0.38%	0.10%	0.12%	0.11%	0.19%	0.09%	0.00%	0.05%	0.07%
Sweden	0.79%	0.17%	0.18%	0.19%	5.82%	3.53%	3.03%	3.34%	2.62%	0.66%	0.42%	0.34%	6.45%	3.42%	2.00%	3.20%
United Kingdom	1.70%	1.70%	2.08%	2.35%	4.48%	4.09%	4.59%	4.66%	6.51%	6.04%	5.17%	7.10%	7.57%	6.63%	6.07%	6.79%
European Union	0.84%	2.47%	1.00%	0.99%	3.85%	4.33%	3.76%	3.63%	3.53%	3.30%	3.44%	4.33%	4.53%	4.39%	4.19%	4.81%

2.5   Actions to improve accuracy

At Eurostat level, the main approaches in order to improve accuracy of external trade statistics are:

- Methodological studies on controls, collection, adjustments, asymmetry, revision and confidentiality.
- Balancing approaches - trying to build the best possible EU 15 and Euro zone trade statistics using mirror statistics.
- Working group on data quality - trying to develop more harmonised statistical practices among the Member States.

3 Accessibility & clarity

3.1 Accessibility

Statistical data has the most value when it is easily accessible by all users under equal conditions and is available in the formats that users desire.

Table 13: Dissemination of the European Union External trade Statistics

	Hardcopy					Electronic			
		bulletin							
MEMBER STATES	news release	weekly	monthly	quarterly	other	on line country bulletin / database	diskette	CD ROM	other
Belgium	x		x	x	x (yearly)	x	x	x	
Denmark	x		x	x	x	x	x		
Germany	x		x		x	x	x	x	x
Greece									
Spain					x	x		x	
France	x		x	x	x	x		x	x
Ireland	x		x	x	x (yearly)	x	x		x
Italy	x				x	x		x	
Luxembourg					x (yearly)	x			x
Netherlands	x		x		x	x	x		
Austria	x		x	x	x	x	x	x	x
Portugal					x	x	x	x	
Finland	x		x		x	x			x
Sweden	x		x			x	x		x
United Kingdom	x		x	x	x	x	x	x	x

3.2 Clarity

Clarity of publication depends on assistance provided in using and interpreting statistics, and in comments and analysis of results available. The figures should carry with them the appropriate metadata, so that the user can understand and interpret them correctly.

Users of Eurostat external trade statistics can refer to the following information in order to understand and interpret data:

- User guide (http://europa.eu.int/comm/eurostat/Public/datashop/print-catalogue/EN?catalogue=Eurostat&product=stg-ug-02-EN)
- Help desk at internal level in Eurostat
- Help desk at external level (Data shops network)
- **Documentation under the responsibility or co-responsibility of unit C 4 on the different nomenclatures used within EU external trade statistics:**

  1. Combined Nomenclature - annual joint publication with DG Taxud;
  2. Explanatory Notes to the CN - joint publication with DG Taxud;

3. Update of CN-codes (transposition tables etc. - annual updated publication by C 4) also on CD-ROM;
4. Intrastat CN (only EN/FR available on paper for internal needs) - on CD-ROM (11 languages) - used by Member States for national publications;
5. Geonomenclature - (theme 6 external trade) - annual publication.

4 Comparability

4.1 Comparability over space

Comparability in foreign trade statistics may be affected by different definitions that are used either in the Member States or in its main partners.

Comparability between EU external trade statistics and those of its main partners

There can be differences in the methods used by the European Union and those adopted by its trading partners in the rest of the world: in terms of trade coverage, these include the choice of partner country, the value of transactions, etc.

Thus, the European Union bases its foreign trade statistics on the 'special trade' system, while the USA, Japan and Canada, for example, apply the 'general trade' system.

These methodological differences can give rise to considerable statistical discrepancies. Eurostat regularly performs a reconciliation of EU trade statistics and those of its main trading partners (e.g. USA, Canada and Japan), in order to measure and explain the discrepancies.

Nevertheless, it should be stressed that considerable efforts have been made at international level to improve the harmonisation of methods. For example, in terms of product classifications, more than 150 countries use the Harmonised Commodity Description and Coding System (HS). Also, the United Nations publishes a handbook of methodological recommendations for compiling external trade statistics.

Eurostat is implementing a project (2002-2003) to produce a common methodology for the reconciliation of external trade statistics associated with a computerised tool to undertake the mirror and reconciliation exercises. The main issue is to reduce asymmetries and hence improve the quality of trade statistics.

It is expected that this project will contribute to harmonise the methodology on the reconciliation exercises for EU and its main trading partners, and to provide a common basis for processing data to obtain adjusted and reconciled trade figures.

Comparability between Community concept and national concept

Community legislation serves as a basis for compiling the extra- and intra-Community trade statistics published by Eurostat and the Member States. However, Community statistics, which cover the European Union as a whole, and the statistics compiled by the Member States, which are concerned with the national dimension, **are not always directly comparable.** There can be methodological differences, which make precise comparison of these statistics impossible.

The principal differences are as follows:

- Breakdown by partner country

For arrivals of goods from other Member States, certain Member States record the country of origin as the partner country, whereas the Member State of consignment appears in Community statistics relating to the same movements.

- Treatment of goods in transit

Some Member States, particularly Belgium and the Netherlands, do not record in their National figures goods, which they consider to be 'in transit'. This involves, firstly, imports from non-member countries which are cleared in these Member States before being dispatched to other Member States and, secondly, goods from other Member States which are immediately re-exported to non-member countries. But, these flows are included in the Community statistics.

Actually, these goods are normally recorded under intra- or extra-EU trade, as appropriate. This phenomenon is sometimes referred to the 'Rotterdam effect'.

- Other differences

Other methodological differences can cause discrepancies between national and Community statistics (examples: classification at national level as 'general trade' rather than 'special trade', or not recording repairs on the grounds that they are services).

Intra-EU trade statistics based upon Community concept

In theory, Intra-EU trade statistics based upon Community concept should be fully comparable. However, since the Intrastat system came into operation, bilateral comparisons have revealed major and persistent discrepancies in the various Member States' intra-Community trade statistics. Therefore, comparisons dealing with Intra-EU trade statistics have to be made cautiously and should take into account the existence of these discrepancies.

Tables 14 and 15 report these differences at global level and by Member State.

Table 14: Intra-EU asymmetries* in %

	1997	1998	1999	2000	2001
Asymmetries	4.9%	4.3%	5.2%	5.2%	5.8%

* Asymmetry = (EU 15 Dispatches – EU 15 Arrivals) / EU 15 Arrivals.

Table 15: Discrepancies of arrivals / dispatches and their mirror figures in %

MEMBER STATES	Arrivals - Mirror figures*					Dispatches - Mirror figures**				
	1997	1998	1999	2000	2001	1997	1998	1999	2000	2001
Belgium-Luxembourg	-0.3%	-2.6%	-	-	-	9.4%	12.2%	-	-	-
Belgium	-	-	-1.8%	-4.9%	-4.6%	-	-	16.0%	17.2%	13.7%
Luxembourg			-3.8%	16.3%	10.4%	-	-	27.2%	-6.3%	15.6%
Denmark	-2.3%	-4.4%	-3.9%	-3.8%	-6.4%	15.2%	17.1%	18.6%	18.0%	23.5%
Germany	7.7%	8.1%	7.0%	7.4%	5.5%	0.9%	0.8%	1.6%	0.8%	3.1%
Greece	0.7%	-5.2%	0.2%	20.8%	28.3%	5.7%	10.4%	5.4%	-9.6%	-22.2%
Spain	14.8%	4.5%	17.3%	6.1%	5.3%	-2.7%	2.4%	-4.0%	3.7%	8.0%
France	6.5%	5.0%	4.6%	1.5%	3.2%	4.4%	3.4%	7.9%	9.8%	8.1%
Ireland	4.1%	2.4%	4.1%	4.6%	3.7%	14.9%	11.4%	2.7%	4.7%	4.1%
Italy	-3.0%	-1.6%	-2.4%	-0.1%	2.5%	10.9%	8.6%	10.4%	10.2%	9.3%
Netherlands	7.4%	8.6%	8.4%	10.1%	7.8%	6.1%	1.8%	5.7%	5.0%	7.8%
Austria	-5.5%	-3.0%	-2.7%	-0.8%	-4.8%	15.1%	13.4%	12.4%	14.3%	17.1%
Portugal	9.3%	10.1%	5.4%	11.2%	17.7%	4.7%	3.6%	4.0%	-4.7%	-11.4%
Finland	-3.2%	-2.6%	3.9%	5.1%	3.5%	7.5%	10.6%	6.9%	5.4%	5.0%
Sweden	-	-	2.4%	4.7%	7.6%	1.9%	0.9%	2.8%	0.1%	-2.6%
United Kingdom	5.0%	6.0%	6.9%	9.8%	15.0%	7.3%	6.3%	4.8%	4.1%	7.1%

*(Mirror dispatches – Arrivals) / Arrivals
** (Dispatches – Mirror arrivals) / Mirror arrivals

4.2 Comparability over time

Comparability over time is another important aspect of quality. Changes due to definitions, coverage or methods and other changes will have an impact on continuity.

The impact of the different methodological and practical changes that have occurred since 1988 (Implementation of Intrastat, EU enlargement, etc…) cannot be precisely assessed. Nevertheless, the development from 1992 to 1993 of Intra-EU asymmetries indicated at the aggregated level that the implementation of Intrastat introduced a major break in the foreign trade statistics time series.

5 Coherence

Coherence is defined as how well sets of statistics can be used together.

Apart from the foreign trade statistics information on external trade can be found in:
- the National Accounts,
- the business statistics,
- the Balance of Payments,

which must relate to one another.
However, the compilation of the data and the production of the above mentioned statistics follow the recommendations (sources and methods) of different international organisations, i.e. Eurostat, International Monetary Fund (IMF), Organisation for Economic Co-operation and Development (OECD), United Nations (UN), World Trade Organisation, etc.

Table 16: Coherence between Foreign Trade Statistics, National accounts, Balance of Payments and business statistics at the EU level.

	Eurostat FTS	Eurostat National accounts	Eurostat BoP	Business Statistics	Conclusion
Concepts & Definitions	Community definition	Aggregation of national statistics based on ESA 95. However, account of the rest of the world is still based upon national definition.	Aggregation of national statistics based upon IMF 5th manual. It implies some methodological discrepancies (FOB/FOB, difference of coverage). Moreover, BoP statistics in Member States are most of the time derived from Member States' FTS that are based upon national definition.	Statistics are based on activity sector	Even if theoretical differences between these statistics are omitted, consistency cannot be guaranteed.
Classifications (nomenclature)	Harmonised System (HS)	NACE	IMF classification	NACE	Compatibility between the existing nomenclature
Aggregation level	Detailed geographical breakdown	Intra-EU , Extra-EU, World	Detailed geographical breakdown	All partners	
Statistical unit/ object/ population	Declaration of an external trade		International Transaction		
Reference period	Monthly	Annual	Annual	Annual	
Correction methods	National corrections	National corrections	National corrections		No harmonised practices can guarantee the coherence