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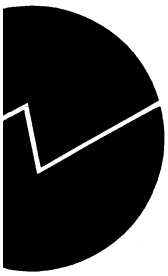

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The Mirror Statistics Exercise between the Nordic Countries 1995

Preface

This report presents the joint results of a mirror exercise within the Nordic Contact Group for External Trade Statistics. The report has been prepared by Jens Thomasen (Eurostat), Hans Kristian Østereng and Anne B. Dahle (Statistics Norway), Audur Olina Svavarsdottir (Statistics Iceland) and Jan Sävenborg (Statistics Sweden). Contributions have also been made by the Nordic Group members Rewal Schmidt-Sørensen (Statistics Denmark), Magnus Kjellberg (Swedish Customs Board), Kajsa Ben Daher (Statistics Sweden), and by Pekka Tanhua and Kuor Nuortila (Customs Board, Finland). The tables and illustrations based on COMEXT[1] data have been prepared by Anne Berthomieu.

The results presented in this report are the outcome of a close and constructive cooperation between the statistical bureaus in Denmark, Finland, Iceland, Norway and Sweden with the assistance and participation of their customs administrations and Eurostat.

The Nordic Contact Group for Foreign Trade Statistics decided in November 1996 to start this mirror investigation. Since 1996 Norway has chaired the Contact Group.

The study was initiated primarily with the aim of undertaking some pioneer work at the Nordic level in the field of studying the bilateral trade discrepancies, and to present a set of explanations. This kind of work has not earlier been undertaken in a systematic way, and has therefore proved to be an excellent opportunity for the trade statisticians involved to exchange and gain experience in this field. Secondly, the aim was to assess the results with a view to the feasibility of a one flow system and in particular to draw conclusions regarding the work necessary for the preparation, implementation and running of such a system.

In chapter 1 some general ideas are presented regarding the mirror studies, and the importance of publishing the results as a complement to the regular and ordinary trade statistics is emphasized.

In chapter 2 the Nordic bilateral trade pattern is analyzed by looking at the latest 5 year period including the size of Danish, Swedish and Finnish trade within the EU. The stepwise approach to the Nordic mirror exercise based on data covering 1995 is described.

Chapter 3 contains a summary of experiences and conclusions of the bilateral studies undertaken.

In chapter 4 an attempt is made to describe a general framework in terms of recommendations for mirror exercises.

Chapter 5 summarizes some of the most important perspectives regarding the one flow system.

In appendix A you will find an overview of the pattern of the Nordic trade 1992-1996. Appendix B contains mirror tables on fish (SITC 03) between Norway and the EU Member States. In appendices C and D you will find the detailed reports of the mirror exercises in the bilateral trade between Sweden - Finland and Iceland - Denmark. Appendix E contains the report on the trade between Norway and Denmark, with a focus on the fish exports from Norway. In appendix F you will find the report on the mirror exercise in the trade between Norway and the other Nordic countries, with a focus on the trade between Norway and Sweden.

[1] The data base of the Statistical Office of the European Communities (Eurostat) on external trade (commerce exterieur) (COMEXT).

Contents

1. Introduction

Although international trade statistics are not compiled by a strict application of the double accounts principle, external trade statistics including intra-Community trade comprise a statistical area unique in the sense that two trading partners in theory compile corresponding sets of data, i.e. exports from one country correspond to imports in the partner country.

From the point of view of producers of trade statistics, i.e. normally the national statistical institutes, this fact provides an excellent possibility for examining the results in the mirror, i.e. to examine how well exports of country A to country B correspond to imports of country B from country A. Not surprisingly this report as well as other similar investigations show that the assumption of equivalence regarding exports of country A to partner B, and imports of B from partner A in practice will prove to be wrong. Small discrepancies are normally explained by differences in methods, definitions etc. Larger discrepancies should, however, be examined in order to arrive at a set of explanations, which is the primary purpose of undertaking a mirror study. A side effect may, however, be that deficiences are recognized, which at a later stage may necessitate an improvement or change in the data or data collection and processing procedures.

Taking into account the increasing internationalization and globalization, the quite complicated trade operations observed from time to time, and furthermore the harmonization of data collection methods, concepts and definitions in trade statistics, the producers are facing an obligation to explain at least the largest mirror discrepancies.

The producers of the statistics are familiar with the fact that a variety of explanations exists regarding the discrepancies between the trade figures of country A and country B. Nevertheless, producers show some sceptisism if the mirror analysis involves a substantial breakdown on detailed level . For the producers it is often a complicated matter to examine the enormous number of data elements and eventually to correct the discrepancies, notably when the large number of reporting enterprises is taken into account. Another drawback regarding investigations at detailed level is that contacts to the enterprises are normally only possible, if the transactions scrutinized are of recent nature.

Trade statistics play an important role as information base for enterprises, federations, governmental bodies and other users. Most experienced users seek information from several sources. Accordingly, there is confusion among users, when large discrepancies are displayed in the trade between country A and country B, be it on the aggregated or the detailed level, and in particular if the results are contradictory. There is a need to explain the reasons, and to highlight the most important ones.

The strong belief that one's own figures are always correct has shown its deficiency. Instead the invitation to an open dialogue seems a productive way to accomplish results, i. e. to explain the discrepancies and thereby improving the quality of the trade statistics. Although a certain protectionism may prevail in the trade relations between the countries of the European Union and third countries, and the incentive therefore, to find a compromise for trade negotiations regarding trade figures that can be accepted by both parties, may be biased, the open cooperation seems vital between the EU countries and their associated partners.

2. The Nordic bilateral trade pattern 1992-1996

Before entering into the details of the bilateral trade pattern of the Nordic countries let us briefly look at the Nordic countries' trade with the EU. Table 2.1 provides figures for 1992 and 1996. It appears that although varying in importance the EU market plays an essential role for all five countries. For Norway, Denmark, Sweden and Iceland the EU value share is well above 60 per cent, except for Iceland's imports and Sweden's exports (in 1996) down to 57 per cent. Finland's EU trade is around

the 60 per cent level. Despite the fact that the export values for all five countries have increased, and in particular for Sweden (almost 50 per cent), the percentage of EU exports has declined. The growth rate of exports to countries outside the EU has apparently been quite significant.

Table 2.1. The Nordic countries' trade with the European Union

Countries	1992				1996			
	Value of imports from EU		Value of exports to EU		Value of imports from EU		Value of exports to EU	
	ECU million	In per cent*	ECU million	In per cent*	ECU million	In per cent*	ECU million	In per cent*
Denmark	18 740	69.8	21 243	68.1	25 169	70.6	26 981	66.6
Iceland	748	57.8	838	71.2	906	56.4	928	62.1
Norway	13 850	69.0	21 324	78.8	19 134	70.8	29 638	76.9
Sweden	24 170	62.9	26 882	62.3	36 059	68.5	38 125	57.1
Finland	9 608	58.9	12 082	65.5	16 150	65.3	17 651	54.5
Total	67 116	65.2	82 369	68.0	97 418	68.8	113 322	63.1

* in per cent of total trade value.
Source: Eurostat - Comext (19/12/1997).

One should, however, take into account that for Sweden and Finland the source of information for 1992 was the COMTRADE data, which does not correspond completely with the COMEXT data provided since Sweden and Finland joined the EU in 1995.

Table 2.2. The 3 Nordic EU members' share of total EU trade in 1996

Countries	Intra-EU trade				Extra-EU trade			
	Arrivals		Dispatches		Imports		Exports	
	ECU million	In per cent	ECU million	In per cent	ECU million	In per cent	ECU million	In per cent
Denmark	25 169	2.5	26 981	2.5	10 501	1.8	13 511	2.2
Sweden	36 059	3.6	38 125	3.6	16 574	2.9	28 680	4.6
Finland	16 150	1.6	17 651	1.7	8 596	1.5	14 737	2.4
Total	77 378	7.6	82 756	7.8	35 672	6.1	56 928	9.1

Source: Eurostat - Comext (19/12/1997).

Table 2.2 shows the three Nordic Member States and their share of the total value of intra and extra-Community trade in 1996. None of the three countries play a dominant role in EU trade with a total share of intra EU arrivals of 7.6 per cent and 7.8 per cent of intra EU dispatches. The total share of extra EU imports is 6.1 per cent and 9.1 per cent for extra EU exports.

In preparation of the mirror study a set of standard mirror tables was produced, and the updated versions of these are found in appendix A containing the results for 1992-1996. The data produced and especially those of 1995 and 1996 are as close to a harmonized base as possible. Since 1995, when Sweden and Finland joined the EU, the Swedish and Finnish data are transmitted according to and in compliance with the EU rules and are directly available in the COMEXT. As members of the EEA Norway and Iceland apply the Community rules as well, apart from exceptions specified in the EEA Agreement.

However, there are several reasons why the data provided cannot be directly compared after all, and it was therefore left to the participants to pay attention to at least the following issues.

One reason is the *application of thresholds in INTRASTAT* in the EU Member States Denmark, Sweden and Finland. A newly introduced adjustment procedure in Denmark takes into account the effect of the threshold even on the most detailed level (product, partner country). However, the revised data for the years preceding 1997 were not available at the time of editing this report. For Sweden and Finland the trade below the threshold is excluded from the COMEXT data. The size of the 1995 threshold for traders' reporting obligation was in Denmark an annual intra-EU trade of minimum DKK 800.000, with an assimilation threshold for arrivals of DKK 500.000. For Sweden a common threshold of SEK 900.000 was applied. In Finland the threshold was FIM 650.000, with an assimilation threshold for arrivals of FIM 300.000. The thresholds applied in Denmark, Sweden and Finland are of a comparable size.

Another reason is the *existence of partial or non response in INTRASTAT*, only influencing the trade between the EU Member States Denmark, Sweden and Finland and in fact only from 1995. Denmark has made adjustments on the aggregated level including distribution by partner country. The newly introduced adjustment procedure in Denmark also takes into account the effect of partial and non response even on the most detailed level (product, partner country).

Unfortunately, the revised data were not available at the time of editing this report. For Sweden and Finland global adjustments are made regarding the trade missing due to partial and non response, however, without assigning a partner country. No adjustments are made regarding the detailed trade. For Denmark, Sweden and Finland the detailed COMEXT data therefore give an incomplete picture of the intra-Community trade conducted.

Table 2.3. Confidential trade of Denmark, Sweden and Finland with the Nordic countries in 1996

	Commodity chapters 01-98	Chapter 99		Confidential partners	
	ECU thousand	ECU thousand	In per cent*	ECU thousand	In per cent*
Import					
Denmark	162	65 672	0.8	58 996	0.8
Sweden	732	*		549 014	5.1
Finland	1 313	78	0.0	0	0.0
Export					
Denmark	1 035	34 753	0.4	338 847	4.1
Sweden	450	*		1 242 393	9.3
Finland	664	16	0.0	2 281	0.0

* In per cent of the country's trade value regarding the other Nordic countries.
Source: Eurostat - Comext (19/12/1997).

Inconsistencies are created by the *use of confidentialization* and in particular when this leads to exclusion of trade from the global figures or, which is more common, exclusion of figures on the detailed level, i.e. product and/or partner country level.

Based on 1996 figures 0.8 per cent of the Danish import value regarding trade with the other Nordic countries is confidentialized as far as the actual partner country is concerned, while 4.1 per cent of the export value is confidentialized.

For Sweden 5.1 per cent of the import value is not distributed among Nordic partners, while 9.3 per cent of Swedish exports cannot directly be assigned a Nordic partner.

For Finland only a marginal confidentialization is made by partner country, cf table 2.3.

In the (national) Norwegian statistics 0.5 per cent of the import value and 7.7 per cent of the exports concerning the other Nordic countries are confidential on the HS[2] two digit level, but included in Norway's total trade with each country.[3]

For Iceland no suppression is made by partner country in the yearly figures.

The problems created by confidentialization regarding the product level had to be dealt with by the individual Nordic countries from case to case, taking into account that each country is in possession of the non-confidentialized data. Legal restrictions have, however, prohibited an exchange of such data.

The participants were also aware that in terms of trade between an EU Member State and a non-Member State it could improve and facilitate mirror exercises to *use the general trade principle,* thereby including the warehouse trade.

Furthermore, to take into account the bias caused by analyzing the extra-Community import flows on basis of country of origin the participants should complement the analysis with results based on *country of consignment.*

The Nordic mirror exercise was, however, never meant to be a global reconciliation of the trade figures. Instead a partial approach was chosen.

Accordingly, it was decided at the Nordic meeting in November 1996, that the first step of the investigations was to analyze the discrepancies at HS-2 level. The most recent annual period available was 1995, and bilateral trade tables for each of the 5 countries were produced by Eurostat and based on COMEXT/COMTRADE data.

After having studied these tables in the first months of 1997 the Nordic countries selected product areas, which in value terms were important, and showed significant mirror discrepancies. The following mirror studies were launched :

- Sweden - Finland regarding HS chapters 27, 84 and 87
- Iceland - Denmark regarding HS chapter 16
- Norway - Denmark regarding SITC[4] 03
- Norway - Sweden regarding HS chapters 27 and 87

The result of these studies are briefly summarized below in chapter 3, and the detailed reports are found in **appendices C-F**.

As a supplement to the four studies the mirrored trade flows for these four partner combinations are provided in figures 1 - 4 showing the results of the years 1992-1996. The same information can be found in the standard mirror tables in appendix A. However, the figures provide a better and easier overview, and allow an easy identification of erratic movements, lack of a systematic relation or extreme discrepancies.

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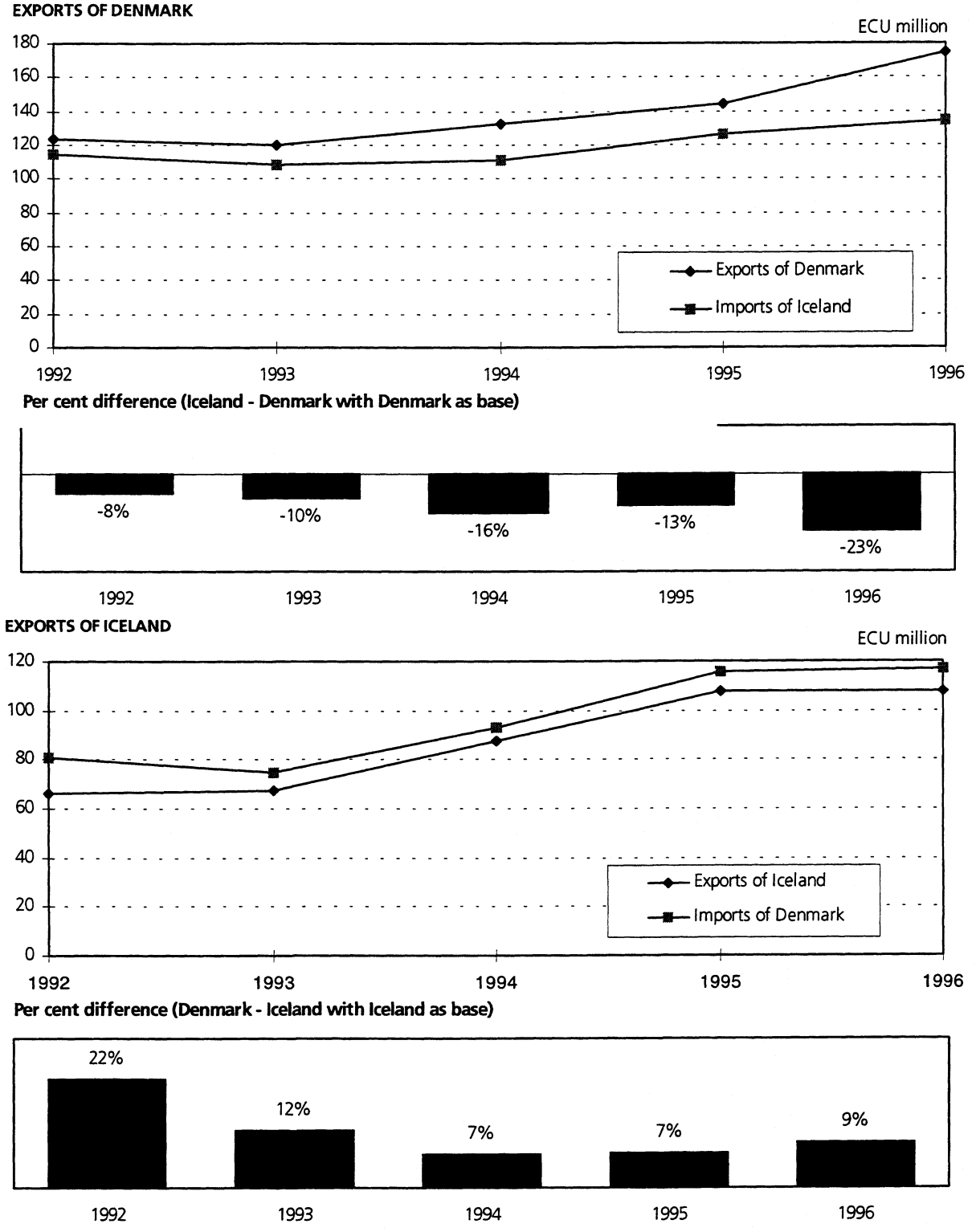
[2] The Harmonized Commodity Description and Coding System (HS).

[3] In COMEXT (where all Norwegian confidential trade is recorded in chapter 99) 8.8 per cent of the export value is suppressed in 1996.

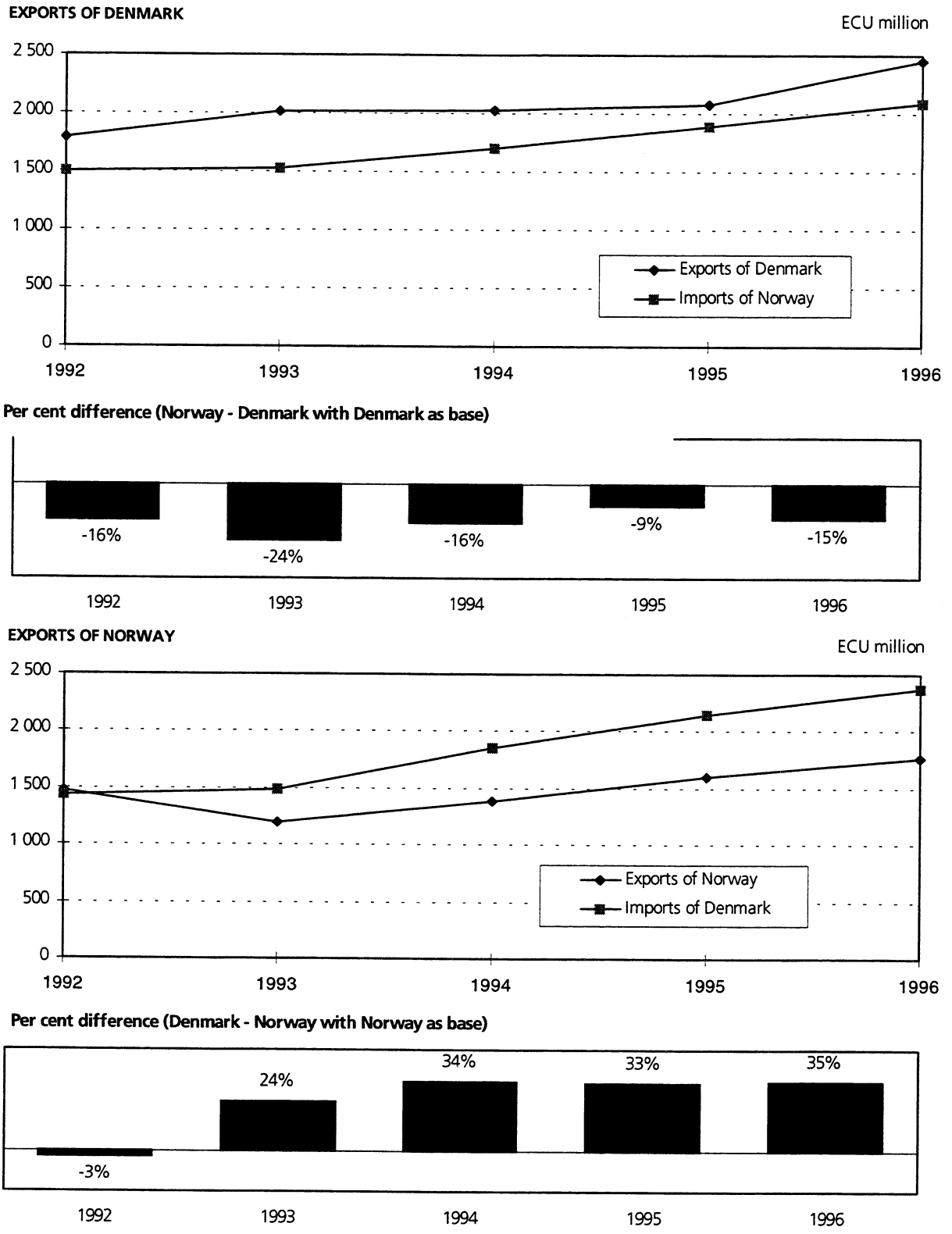
[4] Standard International Trade Classification (SITC), the commodity classification for external trade in goods, of the United Nations

Figure 1. Evolution of mirrored flows between Denmark and Iceland



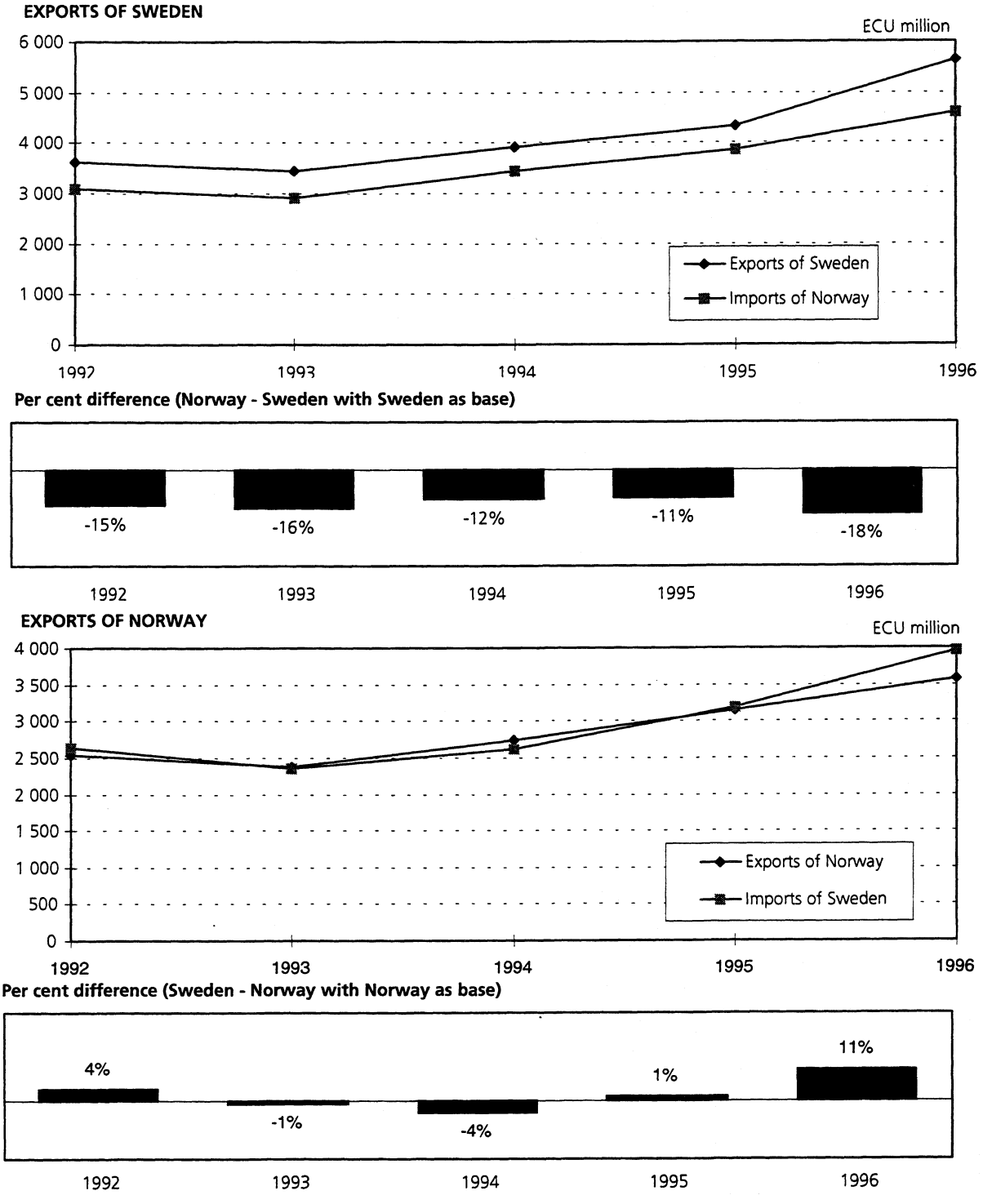
The Iceland - Denmark relation is showing a high degree of stability. Danish export values are generally higher than Iceland import values, but the gap widens in 1996. Danish import values are generally higher than Iceland's export values, however, not more than could be explained by the difference between cif import and fob export values.

Figure 2. Evolution of mirrored flows between Denmark and Norway



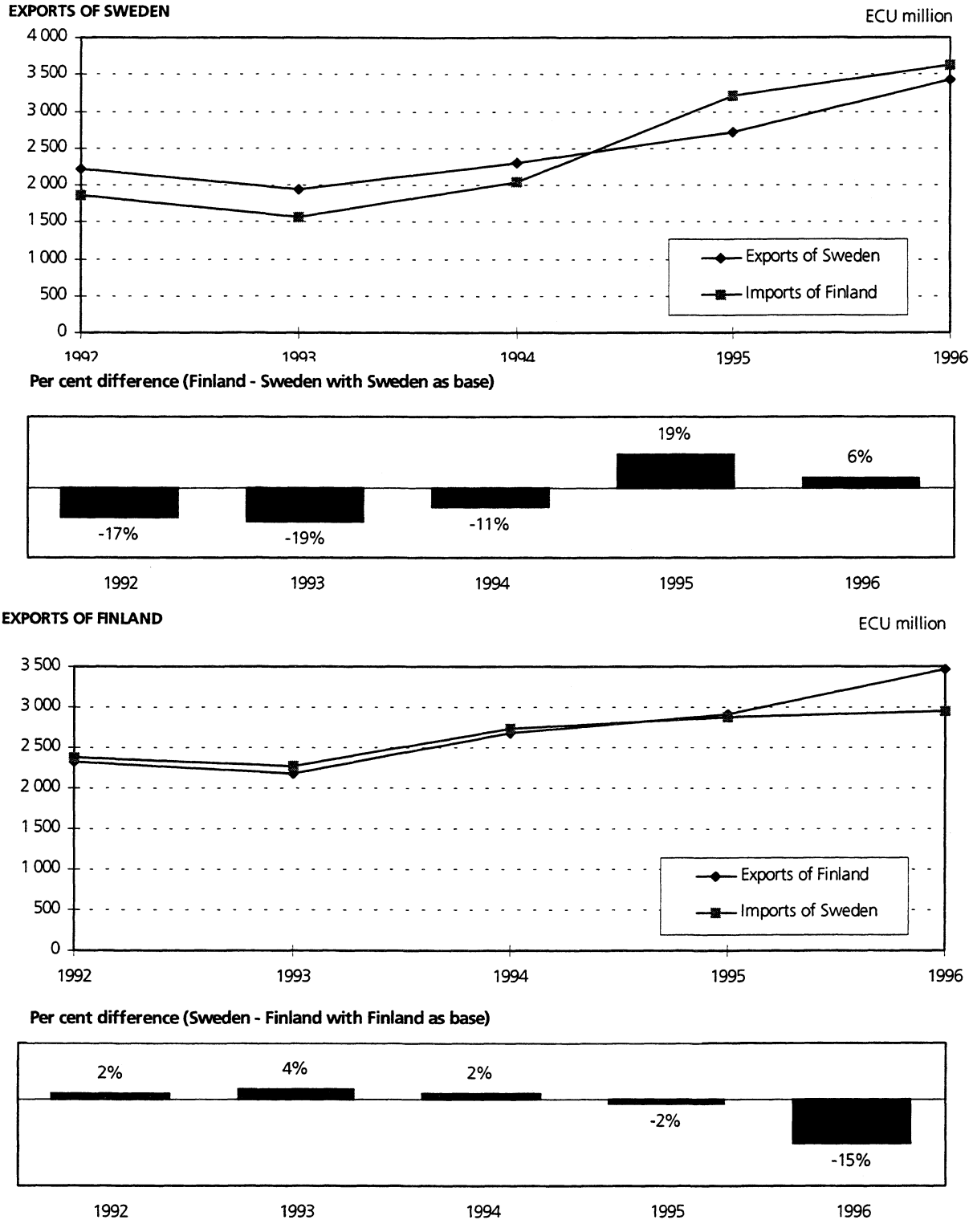
The Norway - Denmark relation shows discrepancies which for exports from Norway have changed gradually from 1992 where the Danish imports were lower than the Norwegian data, into a situation where the Danish imports are more than 30 per cent higher than the Norwegian exports.

Figure 3. Evolution of mirrored flows between Sweden and Norway



The Norway - Sweden relation is stable in terms of exports from Sweden. However, the Swedish export value not only exceeds the import value of Norway, which is surprising in itself, but the discrepancy around 15 per cent seems too high considering that the two countries are in fact neighbours. In terms of exports from Norway there is almost a perfect match with imports to Sweden, although 1996 shows a discrepancy of 11 per cent.

Figure 4. Evolution of mirrored flows between Sweden and Finland



The Sweden - Finland relation seems stable until 1995 being the year that both countries became members of the EU. However, 1995 marks a change of sign for both mirror flows, and calls for a closer analysis.

3. Main results of the Nordic mirror exercise

The first step in our investigations on 1995 data was to analyze the discrepancy tables on HS chapter level prepared from the COMEXT database. The tables for each country covered the bilateral trade both ways between all the Nordic countries and showed the discrepancies in ECU and per cent. From the numerous sets of flow combinations, some important chapters with big discrepancies in one or more flows were chosen for closer inspections.

For the flows and chapters thus selected, there were once more produced discrepancy tables by Eurostat, this time on the HS6 level. In this second step of the bilateral exercises, the COMEXT data were supplemented with national data from the statistical institutions or customs administrations. The influence of confidentiality was investigated by use of national data, and adjustments to limit the discrepancies were introduced. Furthermore, the national data enabled the inclusion of more variables in the investigations, such as quantity, country of consignment for imports and codes for statistical procedure. The additional information proved necessary in order to analyze further and obtain a basis to draw conclusions.

Below are brief summaries of the findings of the four individual exercises.[5]

3.1. Summary of the Icelandic - Danish mirror exercise

Of the other Nordic countries, Denmark was chosen for comparison with the Icelandic data as being the country where the greatest discrepancies occur regarding flows in both directions. A comparison of Icelandic imports with Danish exports and Icelandic exports with Danish imports reveals that in both cases the Danish figures exceed the Icelandic ones.

Icelandic imports minus Danish exports amount to 14 million ECU, a discrepancy of minus 10.0 per cent. Chapters 27 (Mineral fuel), 84 (Machinery), and 30 (Pharmaceutical products) account for most of the discrepancy relating to this particular flow. This discrepancy was not investigated any further.

Icelandic exports minus Danish imports amount to 7.4 million ECU, or minus 6.4 per cent. HS chapter 16 (Preparations of meat and fish, etc.) accounts for 3.9 million ECUs, or 65 per cent of this discrepancy. A further comparison of the Danish and Icelandic data in HS chapter 16 shows that the greatest discrepancies occur in the trade of herring and caviar substitutes.

The main conclusion to be drawn from the study of HS chapter 16, after a close examination of both the Danish and the Icelandic national data and consultation with Icelandic exporters, is that this discrepancy is presumably the result of a *mix-up in the use of HS codes*. An example of this is the discrepancy in figures for caviar substitutes. What is exported from Iceland as raw material (salted lumpfish roes in HS6 030520) is recorded as imports into Denmark as processed goods (semi-conserved lumpfish roes, in HS6 160430, caviar and caviar substitutes). This conclusion is further supported by the fact that the discrepancy for HS 030520 is almost the same as the discrepancy for HS 160430, only with the signs reversed.

3.2. Summary of the Swedish - Finnish mirror exercise

The *Finnish imports exceed the Swedish exports* to Finland by 566 million ECU. This means that the total Finnish arrivals are 21 per cent above the Swedish total dispatches and positive for almost all the chapters. Even when the figures had been adjusted for the impact of a rather large Swedish confidentiality there is still about 7 per cent to be accounted for. The greatest discrepancies were found among the chapters 87 vehicles due to mainly confidential Swedish data. Some discrepancies

[5] The percentages in the text may differ from the percentages in the figures, due to the continuous updating of the COMEXT data base.

were caused by classification to chapter 84 in Finland of lawn mowers. An unexplained occurrence of Finnish arrivals of vehicles waw found in the COMEXT data with no match in the Swedish statistics. A large discrepancy of over 50 per cent in chapter 27, mineral fuels, is reduced to 3 when adjusted for Swedish confidentiality. Swedish confidential treatment of data in chapter 84, machinery, brings the total close to the Finnish arrivals. But a more detailed examination of the data will show some major discrepancies for single positions.

The *Swedish imports are 87 million ECU lower than Finnish exports* to Sweden, which represent a total discrepancy of minus 3 per cent. Behind this low figure are some substantial differences hidden as larger import figures for chapters 84, machinery and 85, electrical machinery and equipment as well as lower imports for chapter 28, inorganic chemicals and 39, plastics (Chapters 28, 39 and 85 were not selected as part of the exercise). The mirror exercise of chapter 27 showed that the total impact of Swedish confidentiality increased the differences of the data even if for some HS positions the suppressed data matched the Finnish export figures. The final result of this chapter exercise was that the discrepancy increased to 17 per cent. The existing discrepancy in chapter 84 of 73 million ECU was marginally exposed to confidentiality but the study did not find the most plausible explanations to the not matching data. The same situation of unexplained discrepancy of 32 million ECU was experienced for chapter 87, where Swedish import data are not affected by confidentiality. Some findings show Swedish arrivals of cars and trucks with no matching Finnish dispatch. The discrepancies of HS 870790 may be caused by mixed up use with HS positions under HS 8708, body parts.

3.3. Summary of the Norwegian - Swedish mirror exercise

The exercise demonstrates the impact of confidentiality at the HS two-digit level of Norway's trade with the other Nordic countries (except Denmark). An obvious choice for further examination was the trade between Sweden and Norway for some chapters with significant discrepancies.

The Norwegian exports minus the Swedish imports do not differ much in total. There was a notable plus difference for chapter 27 mineral fuels, and minus differences for chapters 39, plastics, and 03, fish.

However, looking at the Norwegian imports minus the Swedish exports, the total Norwegian imports are ECU 495 million or 11.4 per cent less than the Swedish exports, and this mismatch is negative for almost all large value chapters, in particular all kinds of machinery (chapters 84 and 85) and vehicles (chapter 87) as the major ones.

Regarding road vehicles there is a discrepacncy of ECU 90 million, or minus 25 per cent. Within the chapter, the main difference concerns HS 8703.23 (medium-sized motor cars) where the Swedish exports amount to ECU 143 million against the Norwegian imports of ECU 99 million, a difference of minus 69 per cent. As a result of the mirror exercise, the Norwegian customs administration is presently looking into this phenomenon. In another, recent investigation the customs found a systematically downward-biased valuation, resulting from an agreement between affiliated enterprises. A substantial discrepancy on "other parts" (8708.99) is explained by Swedish exports to Norway of parts originating in other countries. Typically, parts of Spanish and Portugese origin are imported via Sweden.

The *Norwegian exports differ from the Swedish imports* on chapters 03 (fish), 27 (mineral fuels etc.) and 87 (vehicles etc.). A Norwegian surplus on chapter 27 is caused mainly by Sweden's suppression of all trade regarding electric current. On the other hand, no explanation was found for a Swedish import surplus of crude oil from Norway, even when taking into account the crude oil movements via Teesside, UK. Norwegian, unstabilized crude oil transported in pipeline from Ekofisk to Teesside is fully included in the Norwegian exports to the UK. However, it is not at all included in the UK

imports (because the installations in Teesside are Norwegian owned). The discrepancy on chapter 03 (fish) is assumed to be caused by the same reasons as found in the Norwegian - Danish exercise, cf. chapter 3.5 below.

3.4. Summary of the Norwegian - Danish mirror exercise

The *Norwegian exports minus the Danish imports* for 1995 show a discrepancy of minus 530 million ECU or 25 per cent. This first step of the investigation revealed that chapter 03 fish amounted to half of it (-248 mill ECU), followed by chapters 39 plastics (-74 mill), 27 mineral fuels (-73 mill), and 31, fertilizers (-44 mill). However, this step also illustrated the significant influence of confidential data coded under chapter 99. This totalled 147 mill. ECU or 9.2 per cent of the Norwegian exports to Denmark and 32 mill. ECU or 1.5 per cent of the Danish imports from Norway.

During the second step of investigating the confidential data, Norwegian export figures were reallocated to the original chapters. Especially for plastics, fertilizers and paper the discrepancy was reduced, but the product group with the greatest discrepancy - fish - was not influenced by the confidentiality. So, by including the Norwegian confidential export figures we could explain 114 million ECU of the chapter level discrepancies, without having reallocated Danish, confidential import data (32 million ECU, chapter 99).

By broadening the definition of fish to cover products under SITC group 03[6] and by using tonnes as a measure, the results we found by using *country of origin* or *country of consignment* (for Danish import) were only of minor importance. However, when we looked into the data distributed by customs procedure codes, some interesting information showed up. The influence of the Danish customs procedure for transshipment to another EU Member State (procedure 4200) changed the picture dramatically. By excluding the trade under this procedure the mirror balance would move from a minus 26 per cent discrepancy to a plus 21 per cent calculated by tonnes.

Table 3.1. Trade between Denmark and Norway. 1995. Total, ECU. SITC 03, tonnes

Data content	Total trade Mill ECU	Fish - SITC 03 1000 tonnes	Fish - SITC 03 1000 tonnes
Data source	COMEXT data	National DK/NO data **Included** DK customs procedure 4200	National DK/NO data **Excluded** DK customs procedure 4200
1 Norwegian exports	1 604	159.5	159.5
2 Danish imports	2 134	216.7	131.9
Discrepancy (1-2)	-530	5	19.6
Per cent discrepancy*	-25 per cent	-26.4 per cent	20.9 per cent

* calculation = (1 - 2) / 2 * 100

As a result of the great impact of the transshipment (procedure 4200) deliveries to Denmark, we decided to include the additional study presented below on the fish trade between Norway and all the EU countries.

3.5. Mirror statistics on fish (SITC 03) between Norway and EU in 1995

This additional analysis based on tables from the Eurostat COMEXT database shows the discrepancies between the EU countries and Norway (tables in appendix B).

[6] Standard International Trade Classification (SITC), the commodity classification for external trade in goods, of the United Nations.

These COMEXT mirror tables show that exports from Norway match the total imports of the EU quite well. However, for Denmark, Germany and Sweden the imports of fish from Norway are greatly "overestimated", when compared with the Norwegian export statistics. The Norwegian - Danish mirror exercise indicates that the main reason is the use of transshipments under customs procedure 4200 included in the COMEXT trade data.

This transshipment flow of Norwegian fish through Denmark is according to EU definitions part of EU imports, and will be interpretated as 'national' imports to Denmark even though these goods are not for consumption/processing in Denmark, see column 2, table 3.2 below.

Table 3.2. SITC 03. Trade between Norway and selected EU countries. 1995. Tonnes

EU Importing Country	1 NO Exports (Statistics Norway)	2 EU Imports (Eurostat, COMEXT)	3 EU Imports (National data, ex.42000)	4 Discrep-ancies (2 -3) tonnes	5 Discrep-ancies (1 - 2) tonnes	6 Discrep-ancies (1-2)/2 per cent
Denmark	159 459	220 118	131 954	88 164	- 60 549	- 27.5
Germany	83 722	134 995	99 206	35 789	- 51 220	- 37.9
Sweden	53 418	64 309	53 984	10 325	- 10 476	- 16.3

When we compare the Norwegian fish exports with the Danish imports without transshipments (see column 3), the Danish imports are much *lower*. This could indicate that the Norwegian fish export figure is *still* an overestimation of the Danish 'national' imports for consumption/processing. Trusting the Danish import figure, the difference of 27 thousand tonnes (159 minus 132) arise from Norwegian export declarations with DK *incorrectly* stated as country of destination.

Since Germany and Sweden also use procedure 4200, and are likely to be in the same situation as Denmark in forming the entrance to central and western Europe , we could expect that the national fish import figures, excluding procedure 4200 shipments, for all these countries give a much better picture of fish imports originating in Norway than the COMEXT data can provide.

Contrary to what was found for Denmark, Germany and Sweden imports to the other EU countries are strongly "underestimated" compared with exports from Norway, cf. table 3.3.

Table 3.3. SITC 03. Trade between Norway and selected EU countries. 1995. Tonnes

EU Importing Country	1 NO exports (Statistics Norway)	2 EU importer (Eurostat, COMEXT)	3 Discrepancies (1 - 2) tonnes	4 Discrepancies per cent
France	80 215	12 861	67 355	523.7
Spain	53 418	3 526	23 823	675.6
Belgium/Lux	44 094	21 817	22 324	102.3
Italy	25 356	3 840	21 516	560.4
Netherlands	13 595	2 106	11 490	545.7

The total discrepancy for SITC-03 between Norway and EU is only minus two per cent. Complementary to the large "overestimation" of the fish imports to Denmark, Germany and Sweden shown in table 3.1, we should expect the import figures of other EU countries to be equally underestimated, *which is in fact confirmed in table 3.3.*

Traditionally, France buys its largest volumes of fish (including salmon) from Norway, and it seems that the French imports of fish from Norway (country origin and customs cleared in France) are not reflecting the reality at the fishmongers' market.

For some purposes it might be better to use the Norwegian export figures with France as the country of destination. However, these are also providing too low an estimate for what is ending up in France. An additional percentage of the Norwegian export will still be treated as indirect transit through Denmark, Germany and Sweden as explained above.

Therefore, an even more correct measure of the French fish imports from Norway could be to add an adjusted measure of the Danish, Swedish and German re-exports to France (originating from procedure 4200), using relevant transshipment information available in these three countries.

Similar calculations should be applied for Spain, Belgium/Luxembourg, Italy and the Netherlands as well.

3.6. Main explanatory reasons

One result of the Nordic exercises is an outline of a step by step strategy for finding major, systematic reasons behind the mirror discrepancies, see chapter 4. The strategy may in some cases in itself provide sufficient explanations for the discrepancies at hand. In other cases, the procedure is only a necessary first step in the process of establishing data sets that are sufficiently comparable to disclose other explanatory reasons.

As a result of this strategy some main reasons for the Nordic discrepancies were identified. Our aim was also to rank the reason in order of importance. The ranking could not be based on absolute criteria, but more on subjective considerations of our findings.

The individual exercises identified the following common, main systematic reasons for discrepancies, which are explained later in more detail:

a) confidentiality
b) inherent asymmetry when comparing figures on exports with figures on imports by country of origin,
c) asymmetry caused by systematic transshipments/temporary storage,
d) differing trade systems when comparing national statistics.
e) systematically differing classification

A keyword list of reasons besides the main ones, is given at the end of this chapter, with a reference to their relevance and/or occurrence in the individual reports.

a) Confidential transactions

A major cause of the discrepancies on chapter level in the Nordic COMEXT data for 1995 is the suppression for reasons of confidentiality. The export figures are more widely suppressed than the import figures. This would *caeteris paribus* add to the theoretically expected bias of product group import values exceeding export values.

At the Nordic level the confidential figures are included in the total COMEXT figures and therefore do not pose problems, except when analyzing flows on HS two-digit and more detailed levels. Suppression due to confidentiality was found to have a substantial impact on figures of trade in energy products , and exports of chemicals, machinery and certain categories of vehicles.

b) Partner country/Re-exports of foreign merchandise
In the data transmissions to Eurostat on extra-Community imports, the country of origin is provided as the main partner country. In order to compare exports with imports by country of consignment, it has therefore been necessary to exchange national data, leading to the reconciliation of some of the investigated product groups.

c) Transshipments
'Movements of goods' from a non-EU country through one EU member state, destined for one or more other EU countries, is an important category of transshipments. A typical example seems to be the temporary storage of goods under the EU procedure code 4200. Large quantities of fish are shipped from Norway to Denmark and customs cleared under procedure code 4200. Upon temporary storage, the fish is finally delivered to other EU countries, causing major discrepancies in country- by -country comparisons of the involved countries' figures on their bilateral trade in fish.

A transshipment in the opposite direction is a movement of goods from one EU country, through another to a third (non-EU) country. An example leading to asymmetrical recording was found in the exercises in the movement of motor cars from the Netherlands via Sweden to Norway. The cars are produced in Swedish-owned enterprises in the Netherlands and transported via Sweden to Norway. The vehicles are recorded as Swedish Intrastat arrivals from the Netherlands and third-country exports to Norway. At the point of declaration in Norway, the vehicles' transshipment through Sweden is *not* perceived as an action implying a declaration with Sweden as country of consignment. In fact, the Netherlands appear on the declaration as country of origin and consignment.

d) Special system of trade versus general system
The major difference between the general and special systems of trade is the treatment of the warehouse/entrepôt trade. Difference in the trade system has been identified as a probable source of discrepancy in the comparison of *national* trade statistics between Norway and Denmark: exports of fish from Norway, subject to customs clearance for EU countries and in accordance with the Eurostat reporting rules, may yet fall outside the national Danish interpretation of Danish imports from Norway.

To obtain national mirror figures that have a common definition in terms of trade system, it may be necessary for the mirror partners to exchange data specified by procedure codes, as in the Norwegian-Danish exercise, see chapter 3.4 (and 3.5).

Besides serving as an illustration of the difference between the special and general trade systems, the temporary storage of goods in one EU member state destined for another Member State, can also be seen as an example of *treatment of warehouse/entrepôt trade*, in particular because of the *affiliated-enterprise relationship* that may exist between the exporter and importer.

e) Systematically differing classification
Even at the six-digit level there were identified instances where different classifications of the same merchandise were the source of discrepancies. This was a major explanatory reason for the discrepancy in the Iceland/Denmark exercise (fish products for processing), Sweden/Finland and Norway/Sweden exercises (motor vehicles).

Other explanatory reasons
A list of other general and more specific explanatory reasons, with comments as to their relevance and/or presence in the individual mirror exercises is found below :

- *Time-gap differences and differences linked to time-gaps* were assumed to be of little importance, inasmuch as the exercises were conducted on yearly data and the Nordic countries are geographically close to each other.

- *Different exchange rates* for conversion of statistical data were not an issue in the Nordic exercise, due to the starting off from data already converted to a common currency (ECU)
- *Valuation* The expectancy of cif imports valuation exceeding fob exports was not put to a systematic test in the exercises. However, seemingly inconsistent valuation (or prices) is a cause of discrepancy in the Norway/Sweden report.
- *Inclusion or exclusion of cost of insurance and freight;* not investigated.
- *Processing trade* was due to limited resources not investigated in the exercise.
- *Statistical territory,* differing statistical treatment of goods from territories lying outside the customs' territory (and hence with data collection problems) may be one explanation for the asymmetrical recording (crude oil in Norway/Sweden exercise).
- *Indirect imports*, a cause of discrepancies when a mirror exercise is conducted between the final importing country and the original exporting country, where at the outset the final destination is not known: in such cases the exporting mirror country's figures have to be adjusted upward, before making a comparison directly with the final importing country. See chapters 3.4 and 3.5.

4. Recommendations for mirror exercises

4.1. The mirror puzzle: Match or mismatch of declarations

Looking at mirror statistics we often make the assumption that an export declaration should match an import declaration. In other words, *for any movement of goods from one country to another* there should exist two sets of data, one in each country, *which should match each other. The assumption rests on the two countries having adopted (1) the same set* of definitions for the compilation of external trade statistics, *and (2) the same set of rules for the data collection, be it by means of Customs' or Intrastat declarations.* .

However, the assumption that declarations match for the same shipment, *and that the declaration is included in both countries' statistics,* is in many cases not true. An important message to the users of trade statistics is that they can not expect the set of the export and the import data to always match. These two sets of information are not necessarily identical and might each be correct despite of the mismatching. They could instead be looked upon as supplementary to each other. They are simply pictures from different sites along the way of the flow of goods.

Reconciliation exercises *indicate* a lot of reasons why bilateral trade figures show discrepancies. We may classify them in two main groups:

1. match of declarations, but biased counting or data errors
2. mismatch of declarations in the sense of no declaration at all in the country which the exporter states as the country of destination, or opposite.

It is difficult to calculate exactly the mismatch rate because the 'missing' part of the data is difficult to identify and when matching, the declarations may be erroneous too. The main point is not to quantify the mismatches, but our exercises *seem to indicate* that mismatching *in many cases* dominates *over errors*. In chapter 4.2 we have grouped some reasons according to match/mismatch:

4.2. Match of declarations

Match of declarations, but biased counting or data errors: By this we understand that the goods exported *will have* an import registration in the country which the exporter states as the country of destination. Even when apparently matching, a number of reasons may still be creating discrepancies.

(a) *Biased counting*: The data are *not included* in one of the two data sets. This may happen because of a difference in definitions and practical handling of the trade data; e.g. scientific equipment is included as normal exports, but the importer reports equipment for temporary use which is not included in the import statistics of the receiving country.

(b) *Data errors*: The matching data representing the same shipment of goods are found in *both data sets*, but the quantity and/or value (transformed into common currency) differ. (Here we find different kinds of valuation problems including definition and (commodity) classification errors).

4.3. Mismatch of declarations

Mismatch of declarations: By this we understand that the goods exported *will not at all* be recorded as imports in the country which the exporter states as the country of destination (missing link), or there is either no export or no import registration (missing declaration).

Perhaps mismatch of declarations due to no link in the country codes, is one of the most frequent and serious reasons for the discrepancies in the bilateral trade figures. The use of the definitions and the reliability of filling-in of the country codes are of great importance in mirror studies. Failing link between the country codes of the export and the import declaration may happen in many ways:

(a) *Exporter fails*, but importer states correctly the country code
1. The exporter fails in declaring correctly the final country of destination, because he does not know this at the time when the goods leave the country.
2. The exporter enters the country of *temporary storage* from where goods are redistributed as country of destination, even though he knows what the final country of destination is (transshipment problem).
3. The exporter states the country of an *intermediate trading company* as the country of destination, which might be a country which the goods never physically reach.
4. There is *no export declaration* at all (the exporter avoids it systematically or accidentally)

(b) Exporter states correctly, but *importer fails*
1. The importer fails, because he wrongly states the last country of transshipment as the country of origin. This may be because of customs rules for origin, missing information or lack of awareness of the (statistical) importance of making the declaring correctly.
2. There is *no import declaration* at all (the importer avoids it systematically or accidentally)

(c) *Both* exporter and importer state the country code *incorrectly*
1. A transshipment problem; the exporter states as in (a)2 above a temporary storage. The importer in the final country of destination states the *country of temporary storage* as the country of 'origin'.
2. The goods pass through many intermediate countries and information of the country of origin is 'lost' on the way.

(d) Both exporter and importer state correctly, but nevertheless *mismatches occur*
By this we mean that both exporter and importer state correctly according to their national rules. A large number of mismatches occur this way. The Custom rules for origin and special rules for declaring or handling of the documentation create mismatches frequently and systematically. (E.g. Estonia records exports to Sweden. After minor processing the Swedish company exports to Norway. The Norwegian import declaration states Estonia as the country of origin).

(e) *Erroneous country code(s)* in one or both sides
The code is wrong by mixing up (e.g. SV - San Salvador instead of SE - Sweden; spelled 'Sverige' in Norwegian) or by lack of thoroughness.

Comments
Most countries publish import statistics by *country of origin*. In business and market analysis there is a need to know where the goods are manufactured. Information on the latest country of transshipment (as the country of consignment in the SAD) is not as frequently requested. However, in transport analysis the *country of consignment* may be valuable as additional information. In mirror statistics country of consignment may be more convenient to use as it is closer to the physical flow of the goods.

In conclusion, transshipment and re-exports/imports of goods (included warehousing and entrepôt activities) increase the mismatching rate at the declaration level most significantly. Looking from the side of the importing country, on the aggregate level, the degree of mismatch may be illustrated by comparing the ratio of imports by country of consignment (coc) with the country of origin (coo) (depending on the SAD data being available). If the coc/coo ratio for a trading country is far from 1 you might expect a large number of mismatches. A ratio much higher than 1 indicates high activity of temporary storage or warehousing in the trading partner country. A ratio much lower than 1 may also indicate a low frequency of direct shipments of coo products, a strong storage activity on the way, with the exporter in the country of origin frequently not stating the importing country as destination. In both cases you should expect to find mirror discrepancies.

4.4. A preferred sequence of actions

The Nordic Contact Group concludes that there is a need for stringent rules and recommendations of how to proceed in order to make mirror exercises more comparable to each other. There should be international guidelines on how to conduct reconciliation exercises.

Based on our exercises presented in this report, we have considered what would be the best data sources, which variables that are necessary to investigate, and which details should be chosen to study.

With the caveat of adequate resources, we propose that a standard procedure could comprise the following elements:

- **Step 00. Preparation**
  Initially some preparation must be done. Firstly, the objective and aims of the exercise should be described. Secondly, the resources available and a time table should be considered. Thirdly, it is recommended to determine specific characteristics of the trade pattern including procedures in the countries analyzed.

- **Step 0. Starting point - data sources**
  Before starting the analysis we should select the most useful data. The data source used when making comparisons the first time should be evaluated (e.g. by import country of origin/consignment ratio etc.) and further decided upon if it is necessary to choose national FTS data or other special pre-treatment of data. (In mirror tables from COMEXT and other international databases, one set of definitions is chosen; which does not always fit the best in a mirror analysis). This step includes a precise description of what is behind the data variables and what key information could be missing (e.g. is both country of origin and country of consignment available, or only one). Thereafter decide if the data source is acceptable, or if it is recommendable to select other data sources.

- **Step 1. 'Comparable' data**
  Before we start to compute mirror statistics, pre-corrections may need to be done; this means that we should decide what are the best 'comparable' data sets. Including the step 0 above the

'standard 'peeling' procedure' may have such a sequence:

1. *Data sources evaluation.* (See step 0. E.g. COMEXT might *not* be suitable. National published data may be more useful or even national statistics with special exclusions and/or inclusions deviating from the definitions).

   Goal: To decide what should be the proper data sources and content of the input data sets.

2. *Confidentiality pre-treatment.* We have to correct for suppressed data asmuch as possible. In cases where the exports are more a disclosure problem than imports, one possibility is to let the exporting country investigate by receiving import data from the counterpart, to increase the chances for relevant results.

   Target; the influence of confidentiality is detected and removed before proceeding with further investigations.

3. *Adjustment for trade procedures.* Customs procedures or trade categories. We should consider to include or exclude special flows of goods and in particular those indicating indirect transit/transshipments and all kinds of warehousing of goods. A main purpose is to isolate reasons for mismatch and missing link of country codes.

   Target; To select data for discrepancy tables. To find and minimise discrepancies made from the differences in the trade procedures.

4. *Adjustments for country codes.* In cases where both country of origin and country of consignment are available, it is useful to study their frequency and ratios. There is a choice between two strategies:
   1. Use data on country of consignment instead of country of origin.
   2. Use only data with the same (partner country) as the country of origin *and* the country of consignment. If the ratio is below or around 1, use 2.

   (In cases with a very high ratio, maybe statistics for the transshipment country(ies) should be added to make a more complete picture).

5. *Adjustments for thresholds.* In INTRASTAT discrepancies can be caused by the threshold system: If e.g. all the imports of a specific commodity to one Member State are carried out by traders above the assimilation threshold but all the exporters to that Member State of the specific commodity are below the assimilation threshold, then mirror statistics will show a discrepancy equal to the reported amount of the importing Member State. The only way to avoid this kind of discrepancy is if the NSIs of the exporting Member States estimate export figures - almost any intelligent estimate will probably produce better export figures than to give no information at all.When conducting mirror statistics analysis it is important to be aware of the threshold problem - especially if the investigated commodities are commodities which usually are traded by companies in trades where the size structure of the traders vary in the different Member States.

6. Other adjustments (which could be proposed)

- **Step 2. Matching of data and creation of mirror discrepancies tables**
  Aggregate level tables and analysis
  Selection of commodity groups on both high and detailed commodity level.

Target: to identify the commodities which create the biggest discrepancies.

Sometimes the final conclusions could already be made here, based on the tables and information resulting from step 1 and 2. It depends on how precise the results need to be. If more precise, detailed results are needed, proceed to step 3 based on selected 'problem' commodities.

- **Step 3. To find specific reasons for the discrepancies**
  Micro level investigations

If the major reason for the discrepancies is mismatches, there will be missing information in at least one of the two stages of comparison. If sufficient data happen to be found at the first point of investigation (3A below), a satisfactory reason may have been found and there would probably be no need to spend more time to investigate further. If the opposite is the case, information is missing, we need to prolong the investigation (go to 3B below).

3A. *A one-way identification of the most important exporters or importers*
The investigation is done only in one of the two mirror countries. Exporters (or importers) are consulted about the problem and may be questioned about their practise in general or about specific deliveries of goods.

3B. *A two-way matching of declarations to find reasons for divergences of specific transshipment*
The investigation is enlarged by continuing from 3A, to investigate from the opposite side as well; what happens to the selected 'problematic' transactions (declarations). This could involve the problem of legal formalities, depending on how the data collection authorities are able to cooperate.

Target: To identify declarants or importers/exporters which create the biggest discrepancies in order to identify exact reasons.

Closing comments
The producers of foreign trade statistics work constantly to minimize mismatches. They also want to continue developing further international guidelines on how to reduce this problem, and on how to conduct mirror investigation analyses in general. When only one set of bilateral trade data is desired, we often need to do a separate correction and adjustment work (or if a permanent solution is wanted we need to develop additional production routines). This is, however, a rather complicated job.

5. Perspectives regarding the one flow system

One of the aims of the Nordic mirror study has been to make a preliminary assessment of the perspectives of introducing the one flow system.

The idea of the one flow system was launched as a SLIM / INTRASTAT proposal, and is now the subject of studies in all Member States. The objective is to study the feasibility of introducing this alternative collection system in order to replace the present INTRASTAT system. Introduction of the one flow system among a group or groups of Member States has not been excluded, rather it seems more realistic than a one flow system comprising all Member States from the outset.

A priori, the one flow system seems attractive from the point of view of simplification and reduction of burdens on business. The one flow system would on average reduce the declaration burden by 50 per cent.

However, for the administrations a thorough preparatory work is needed, cf. the above mentioned studies. The running of a double system in a transition period would probably be necessary.

For the producers of statistics the main question remains: will it be possible to avoid a deterioration of the quality of intra-Community trade statistics, keeping in mind that once introduced the one flow system is the point of no return. And it is evident that the concern of the producers is the concern of the users and the politicians as well.

The mirror exercise conducted has far from been comprehensive enough to draw any final conclusions regarding the one flow system. However, some lessons have been learned.

We found in our bilateral exercises many examples of mismatches between the export and the "corresponding" import information using the partner country codes. This means that the exports declared will not be recorded in the importing country (as stated in the export declaration), and vice versa. Discrepancies were also caused by differences in practice and definitions. The impact of customs procedures regarding transshipments/warehouses has been evident.

At least two conclusions can be drawn regarding the one flow system.

One is that efficient investigations of the impact of the one flow system should be based on comprehensive and standardized recommendations for mirror exercises. The reasons for mirror discrepancies should be classified and quantified according to certain standards.

The second conclusion to be drawn is that a further harmonisation is called for. Concepts, definitions and methods have already been harmonised, however, some work is still to be done in this field. The major challenge will be to harmonise the practices and administrative procedures. The newly taken step to allow an exchange of confidential information between administrations within the EU is an important step in this direction. A continued close cooperation is a cornerstone in this process. Another is the open mind of the national experts and the willingness to do things better.

Nordic Trade Pattern 1992 - 1996

Table A1. Mirror statistics between Nordic countries. Values in millions of ECU. 1996

Reporting countries		Importing countries					
		Denmark	Iceland	Norway	Sweden	Finland	Total
	1	.	134	2 091	3 892	1 239	7 356
	2	.	175	2 455	4 580	1 114	8 324
Denmark	3	.	41	364	688	-125	968
	4	.	30.3%	17.4%	17.7%	-10.1%	13.2%
	5	.	-23.2%	-14.8%	-15.0%	11.2%	-11.6%
	1	117	.	62	23	15	217
	2	108	.	55	19	14	196
Iceland	3	-10	.	-7	-4	-1	-21
	4	-8.2%	.	-11.1%	-15.6%	-4.8%	-9.6%
	5	9.0%	.	12.4%	18.5%	5.0%	10.6%
	1	2 372	217	.	3 960	1 011	7 560
	2	1 762	197	.	3 576	847	6 382
Norway	3	-610	-21	.	-384	-163	-1 178
	4	-25.7%	-9.5%	.	-9.7%	-16.1%	-15.6%
	5	34.6%	10.5%	.	10.7%	19.3%	18.5%
	1	4 374	108	4 611	.	3 626	12 719
	2	4 174	111	5 631	.	3 432	13 348
Sweden	3	-200	3	1 019	.	-194	628
	4	-4.6%	3.0%	22.1%	.	-5.4%	4.9%
	5	4.8%	-2.9%	-18.1%	.	5.7%	-4.7%
	1	984	26	970	2 940	.	4 921
	2	975	26	929	3 469	.	5 398
Finland	3	-9	-1	-41	529	.	477
	4	-0.9%	-3.7%	-4.3%	18.0%	.	9.7%
	5	0.9%	3.8%	4.4%	-15.2%	.	-8.8%
	1	7 848	486	7 734	10 815	5 891	32 774
	2	7 019	508	9 070	11 644	5 407	33 648
Total	3	-829	22	1 335	829	-483	874
	4	-10.6%	4.6%	17.3%	7.7%	-8.2%	2.7%
	5	11.8%	-4.4%	-14.7%	-7.1%	8.9%	-2.6%

1: value reported by importing country
2: value reported by exporting country
3: (2) - (1)
4: (3) / (1) * 100 (in per cent).
5: [(1) - (2)] / (2) * 100 (in per cent).

Sources : Comtrade for Iceland and Norway (18/12/1997).
Eurostat - Comext for Denmark, Sweden and Finland (18/12/1997).

Table A2. Mirror statistics between Nordic countries. Values in millions of ECU. 1995

Reporting countries		Importing countries					
		Denmark	Iceland	Norway	Sweden	Finland	Total
Denmark	1	.	126	1 891	3 380	1 055	6 452
	2	.	144	2 080	3 642	926	6 792
	3	.	18	189	262	-129	339
	4	.	14.4%	10.0%	7.7%	-12.3%	5.3%
	5	.	-12.6%	-9.1%	-7.2%	14.0%	-5.0%
Iceland	1	116	.	47	20	7	189
	2	108	.	45	18	7	178
	3	-8	.	-2	-2	0	-11
	4	-6.5%	.	-4.0%	-9.8%	-1.1%	-6.0%
	5	6.9%	.	4.2%	10.9%	1.1%	6.4%
Norway	1	2 141	136	.	3 186	899	6 362
	2	1 605	127	.	3 149	876	5 757
	3	-536	-9	.	-37	-23	-605
	4	-25.0%	-6.7%	.	-1.2%	-2.6%	-9.5%
	5	33.4%	7.1%	.	1.2%	2.6%	10.5%
Sweden	1	3 978	94	3 860	.	3 213	11 144
	2	3 632	102	4 350	.	2 708	10 791
	3	-346	8	490	.	-505	-353
	4	-8.7%	8.7%	12.7%	.	-15.7%	-3.2%
	5	9.5%	-8.0%	-11.3%	.	18.7%	3.3%
Finland	1	963	25	987	2 867	.	4 841
	2	880	23	870	2 913	.	4 686
	3	-83	-2	-116	46	.	-155
	4	-8.6%	-6.4%	-11.8%	1.6%	.	-3.2%
	5	9.5%	6.8%	13.4%	-1.6%	.	3.3%
Total	1	7 197	380	6 784	9 453	5 174	28 988
	2	6 224	396	7 345	9 721	4 516	28 203
	3	-973	16	561	268	-658	-785
	4	-13.5%	4.1%	8.3%	2.8%	-12.7%	-2.7%
	5	15.6%	-4.0%	-7.6%	-2.8%	14.6%	2.8%

1: value reported by importing country
2: value reported by exporting country
3: (2) - (1)
4: (3) / (1) * 100 (in per cent).
5: [(1) - (2)] / (2) * 100 (in per cent).

Sources : Comtrade for Iceland and Norway (18/12/1997).
Eurostat - Comext for Denmark, Sweden and Finland (18/12/1997).

Table A3. Mirror statistics between Nordic countries. Values in millions of ECU. 1994

Reporting countries		Importing countries					
		Denmark	Iceland	Norway	Sweden	Finland	Total
	1	.	111	1 694	2 869	597	5 272
	2	.	133	2 023	3 282	684	6 122
Denmark	3	.	21	329	412	87	849
	4	.	19.1%	19.4%	14.4%	14.5%	16.1%
	5	.	-16.1%	-16.3%	-12.6%	-12.7%	-13.9%
	1	93	.	35	17	15	161
	2	87	.	38	14	13	153
Iceland	3	-6	.	3	-3	-2	-8
	4	-6.2%	.	8.4%	-17.1%	-14.9%	-5.0%
	5	6.6%	.	-7.7%	20.7%	17.4%	5.2%
	1	1 850	177	.	2 626	932	5 586
	2	1 378	167	.	2 741	870	5 156
Norway	3	-472	-10	.	114	-62	-430
	4	-25.5%	-5.6%	.	4.4%	-6.7%	-7.7%
	5	34.3%	5.9%	.	-4.2%	7.2%	8.3%
	1	3 344	87	3 442	.	2 047	8 920
	2	3 377	85	3 928	.	2 298	9 688
Sweden	3	33	-2	486	.	251	767
	4	1.0%	-2.0%	14.1%	.	12.2%	8.6%
	5	-1.0%	2.1%	-12.4%	.	-10.9%	-7.9%
	1	867	23	838	2 732	.	4 460
	2	845	20	771	2 671	.	4 308
Finland	3	-21	-4	-67	-61	.	-152
	4	-2.4%	-15.4%	-8.0%	-2.2%	.	-3.4%
	5	2.5%	18.2%	8.7%	2.3%	.	3.5%
	1	6 154	399	6 010	8 245	3 592	24 399
	2	5 688	405	6 760	8 708	3 864	25 425
Total	3	-466	6	751	463	273	1 026
	4	-7.6%	1.5%	12.5%	5.6%	7.6%	4.2%
	5	8.2%	-1.5%	-11.1%	-5.3%	-7.1%	-4.0%

1: value reported by importing country
2: value reported by exporting country
3: (2) - (1)
4: (3) / (1) * 100 (in per cent)
5: [(1) - (2)] / (2) * 100 (in per cent)

Sources : Comtrade for Iceland, Norway, Sweden and Finland (18/12/1997).
Eurostat - Comext for Denmark (18/12/1997).

Table A4. Mirror statistics between Nordic countries. Values in millions of ECU. 1993

Reporting countries		Importing countries					
		Denmark	Iceland	Norway	Sweden	Finland	Total
	1	.	108	1 524	2 594	483	4 709
	2	.	120	2 007	3 009	559	5 695
Denmark	3	.	12	483	414	77	986
	4	.	11.0%	31.7%	16.0%	15.9%	20.9%
	5	.	-9.9%	-24.1%	-13.8%	-13.7%	-17.3%
	1	75	.	45	13	10	143
	2	67	.	40	14	8	130
Iceland	3	-8	.	-5	0	-2	-14
	4	-10.3%	.	-10.5%	3.6%	-15.8%	-9.5%
	5	11.5%	.	11.7%	-3.5%	18.7%	10.5%
	1	1 486	143	.	2 351	736	4 715
	2	1 195	139	.	2 372	694	4 400
Norway	3	-291	-3	.	21	-42	-315
	4	-19.6%	-2.3%	.	0.9%	-5.8%	-6.7%
	5	24.3%	2.4%	.	-0.9%	6.1%	7.2%
	1	2 770	78	2 901	.	1 570	7 319
	2	2 815	74	3 459	.	1 942	8 291
Sweden	3	46	-4	557	.	373	972
	4	1.6%	-5.1%	19.2%	.	23.7%	13.3%
	5	-1.6%	5.4%	-16.1%	.	-19.2%	-11.7%
	1	709	23	671	2 260	.	3 663
	2	658	19	627	2 176	.	3 480
Finland	3	-50	-4	-45	-84	.	-182
	4	-7.1%	-17.2%	-6.7%	-3.7%	.	-5.0%
	5	7.6%	20.8%	7.1%	3.8%	.	5.2%
	1	5 039	351	5 142	7 218	2 798	20 550
	2	4 736	352	6 133	7 571	3 204	21 997
Total	3	-303	1	991	353	406	1 447
	4	-6.0%	0.2%	19.3%	4.9%	14.5%	7.0%
	5	6.4%	-0.2%	-16.2%	-4.7%	-12.7%	-6.6%

1: value reported by importing country
2: value reported by exporting country
3: (2) - (1)
4: (3) / (1) * 100 (in per cent)
5: [(1) - (2)] / (2) * 100 (in per cent)

Sources : Comtrade for Iceland, Norway, Sweden and Finland (18/12/1997).
Eurostat - Comext for Denmark (18/12/1997).

Table A5. Mirror statistics between Nordic countries. Values in millions of ECU. 1992

Reporting countries		Importing countries					
		Denmark	Iceland	Norway	Sweden	Finland	Total
Denmark	1	.	114	1 506	2 925	548	5 093
	2	.	124	1 783	3 283	617	5 806
	3	.	10	277	358	68	713
	4	.	8.6%	18.4%	12.2%	12.5%	14.0%
	5	.	-7.9%	-15.5%	-10.9%	-11.1%	-12.3%
Iceland	1	81	.	31	20	12	144
	2	66	.	26	18	11	122
	3	-14	.	-5	-2	-1	-22
	4	-17.9%	.	-16.3%	-9.4%	-5.8%	-15.4%
	5	21.9%	.	19.4%	10.3%	6.2%	18.2%
Norway	1	1 431	189	.	2 634	643	4 898
	2	1 473	187	.	2 537	692	4 889
	3	42	-2	.	-97	49	-9
	4	2.9%	-1.0%	.	-3.7%	7.6%	-0.2%
	5	-2.8%	1.0%	.	3.8%	-7.0%	0.2%
Sweden	1	2 864	88	3 100	.	1 855	7 906
	2	3 074	86	3 628	.	2 224	9 011
	3	210	-2	528	.	369	1 105
	4	7.3%	-2.8%	17.0%	.	19.9%	14.0%
	5	-6.8%	2.9%	-14.6%	.	-16.6%	-12.3%
Finland	1	697	22	710	2 378	.	3 808
	2	652	21	638	2 325	.	3 635
	3	-46	-1	-72	-54	.	-172
	4	-6.5%	-4.1%	-10.1%	-2.3%	.	-4.5%
	5	7.0%	4.3%	11.3%	2.3%	.	4.7%
Total	1	5 073	413	5 347	7 958	3 059	21 849
	2	5 265	417	6 075	8 163	3 544	23 464
	3	192	4	728	205	486	1 615
	4	3.8%	1.1%	13.6%	2.6%	15.9%	7.4%
	5	-3.6%	-1.1%	-12.0%	-2.5%	-13.7%	-6.9%

1: value reported by importing country

2: value reported by exporting country

3: (2) - (1)

4: (3) / (1) * 100 (in per cent)

5: [(1) - (2)] / (2) * 100 (in per cent)

Sources : Comtrade for Iceland, Norway, Sweden and Finland (18/12/1997).
Eurostat - Comext for Denmark (18/12/1997).

Mirror tables; Mirror statistics on fish (SITC 03) between Norway and EU. 1995

Table B1. Intra-European Union trade. Mirror statistics related to SITC 03. In 1000 ECU. 1995

"Exporting countries		Importing countries: France	BLEU	Netherlands	Germany	Italy	United Kingdom	Ireland	Denmark	Greece	Portugal	Spain	Sweden	Finland	Austria
F	1	*	64 909	27 191	81 149	132 319	36 425	247	5 166	3 651	22 158	224 207	2 544	290	5 020
	2	*	69 278	26 329	84 249	105 981	39 726	352	5 872	4 590	28 634	193 642	2 574	409	3 688
	3	*	4 369	-862	3 101	-26 338	3 301	106	706	940	6 476	-30 565	30	119	-1 332
	4	*	7%	-3%	4%	-20%	9%	43%	14%	26%	29%	-14%	1%	41%	-27%
	5	*	6%	-3%	4%	-25%	8%	30%	12%	20%	23%	-16%	1%	29%	-36%
BLEU	1	106 564	*	45 328	27 097	10 285	17 886	85	3 947	1 145	1 464	15 875	692	0	2 133
	2	131 587	*	43 494	41 932	8 984	13 941	67	1 880	1 485	2 274	15 586	957	0	1 847
	3	25 024	*	-1 834	14 835	-1 300	-3 945	-18	-2 067	340	810	-289	265	0	-286
	4	23%	*	-4%	55%	-13%	-22%	-21%	-52%	30%	55%	-2%	38%	170%	-13%
	5	19%	*	-4%	35%	-14%	-28%	-26%	-110%	23%	36%	-2%	28%	63%	-15%
NL	1	194 054	206 192	*	171 708	221 869	45 373	1 449	17 195	10 521	9 786	114 026	11 626	625	17 502
	2	134 282	204904	*	202 170	122 285	44 753	1 543	18 606	7 378	13 521	123 844	10 992	421	10 925
	3	-59 772	-1 288	*	30 462	-99 584	-620	94	1 411	-3 144	3 735	9 818	-634	-204	-6 576
	4	-31%	-1%	*	18%	-45%	-1%	6%	8%	-30%	38%	9%	-5%	-33%	-38%
	5	-45%	-1%	*	15%	-81%	-1%	6%	8%	-43%	28%	8%	-6%	-48%	-60%
D	1	163 609	46 332	100 763	*	72 331	24 024	114	28 663	6 305	3 113	27 861	4 360	1 500	61 808
	2	154 898	37 154	84 661	*	50 473	20 895	34	14 661	5 293	4 581	32 337	2 967	559	46 258
	3	-8 712	-9 178	-16 102	*	-21 858	-3 128	-80	-14 002	-1 013	1 469	4 476	-1 392	-940	-15 550
	4	-5%	-20%	-16%	*	-30%	-13%	-70%	-49%	-16%	47%	16%	-32%	-63%	-25%
	5	-6%	-25%	-19%	*	-43%	-15%	-238%	-96%	-19%	32%	14%	-47%	-168%	-34%
I	1	21 059	8 281	18 442	20 105	*	2 234	64	1 723	25 375	1 182	93 920	39	75	4 997
	2	25 215	8 623	12 001	30 673	*	3 152	129	2 491	22 981	562	97 064	79	70	5 367
	3	4 156	342	-6 440	10 568	*	918	65	768	-2 394	-619	3 144	40	-5	370
	4	20%	4%	-35%	53%	*	41%	100%	45%	-9%	-52%	3%	101%	-7%	7%
	5	16%	4%	-54%	34%	*	29%	50%	31%	-10%	-110%	3%	50%	-8%	7%
UK	1	306 458	55 729	76 016	31 065	73 038	*	44 613	12 043	5 137	14 761	200 327	2 681	190	1 386
	2	297 433	40 456	44 708	50 021	62 096	*	54 307	12 844	3 974	11 914	128 346	5 773	2 199	576
	3	-9 025	-15 273	-31 308	18 956	-10 942	*	9 693	800	-1 163	-2 847	-71 981	3 092	2 009	-809
	4	-3%	-27%	-41%	61%	-15%	*	22%	7%	-23%	-19%	-36%	115%	1056%	-58%
	5	-3%	-38%	-70%	38%	-18%	*	18%	6%	-29%	-24%	-56%	54%	91%	-140%
IRL	1	55 449	2 691	9 021	25 665	17 282	22 114	*	1 523	1 045	656	55 059	2 376	92	382
	2	59 170	2 576	5 863	23 668	16 006	24 047	*	1 405	752	613	44 876	2 986	287	228
	3	3 721	-115	-3 158	-1 997	-1 276	1 933	*	-118	-293	-44	-10 183	610	195	-154
	4	7%	-4%	-35%	-8%	-7%	9%	*	-8%	-28%	-7%	-18%	26%	211%	-40%
	5	6%	-4%	-54%	-8%	-8%	8%	*	-8%	-39%	-7%	-23%	20%	68%	-68%
DK	1	340 552	62 286	70 031	368 068	274 730	105 174	4 670	*	12 881	50 136	126 590	98 561	4 949	19 486
	2	303 847	72 195	92 033	478 976	243 961	134 862	6 481	*	12 090	48 253	116 917	97 730	5 030	20 266
	3	-36 705	9 909	22 002	110 908	-30 768	29 688	1 811	*	-792	-1 882	-9 673	-832	81	781
	4	-11%	16%	31%	30%	-11%	28%	39%	*	-6%	-4%	-8%	-1%	2%	4%
	5	-12%	14%	24%	23%	-13%	22%	28%	*	-7%	-4%	-8%	-1%	2%	4%
GR	1	5 434	603	1 266	6 577	93 175	1 268	6	279	*	131	3 466	81	*	531
	2	11 253	1 056	1 699	8 078	91 765	3 180	0	54	*	148	4 326	13	*	357
	3	5 820	453	433	1 501	-1 411	1 911	-6	-225	*	17	860	-68	0	-174
	4	107%	75%	34%	23%	-2%	151%	-96%	-81%	*	13%	25%	-83%		-33%
	5	52%	43%	25%	19%	-2%	60%	-2338%	-415%	*	11%	20%	-503%		-49%
P	1	37 752	4 174	1 219	4 805	31 400	15 082	206	951	2 788	*	81 378	642	7	3 080
	2	40 338	4 819	1 162	7 113	27 061	14 941	103	2 151	2 980	*	67 100	779	6	3 229
	3	2 586	645	-57	2 308	-4 339	-141	-103	1 200	192	*	-14 278	137	-1	149
	4	7%	15%	-5%	48%	-14%	-1%	-50%	126%	7%	*	-18%	21%	-8%	5%
	5	6%	13%	-5%	32%	-16%	-1%	-101%	56%	6%	*	-21%	18%	-9%	5%
E	1	84 289	6 417	3 312	27 353	258 096	12 245	*	3 370	9 865	157 365	*	551	79	256
	2	92 630	5 470	7 011	34 003	247 008	21 397	266	5 063	8 556	207 410	*	763	81	324
	3	8 341	-946	3 699	6 650	-11 088	9 151	266	1 693	-1 309	50 046	*	212	2	68
	4	10%	-15%	112%	24%	-4%	75%		50%	-13%	32%	*	38%	2%	27%
	5	9%	-17%	53%	20%	-4%	43%	100%	33%	-15%	24%	*	28%	2%	21%
S	1	30 169	6 282	7 700	7 466	5 409	1 507	17	57 957	75	360	4 426	*	15 663	2 531
	2	45 332	11 440	5 930	12 823	5 748	1 477	52	51 522	63	2 491	7 158	*	15 185	2 263
	3	15 163	5 158	-1 771	5 356	339	-29	36	-6 435	-12	2 131	2 732	*	-478	-268
	4	50%	82%	-23%	72%	6%	-2%	215%	-11%	-16%	593%	62%	*	-3%	-11%
	5	33%	45%	-30%	42%	6%	-2%	68%	-12%	-18%	86%	38%	*	-3%	-12%
FIN	1	290	1 933	66	158	32	1	*	1 986	*	*	45	1 475	*	1
	2	27	194	45	168	31	*	*	199	*	*	*	851	*	4
	3	-263	-1 740	-21	9	0	-1	0	-1 788	0	0	-45	-624	*	3
	4	-91%	-90%	-32%	6%	-1%			-90%				-42%	*	320%
	5	-983%	-898%	-48%	6%	-1%			-900%				-73%	*	76%
A	1	43	238	17	679	218	1	*	459	*	*	2	*	*	*
	2	1	7	87	8 160	4	*	*	*	0	*	*	*	*	*
	3	-42	-231	69	7 481	-214	-1	0	-459	0	0	-2	0	0	*
	4	-98%	-97%	397%	1102%	-98%									*
	5	-4175%	-3348%	80%	92%	-5752%									

1: value reported by importing country
2: value reported by exporting country
3: (2) - (1)
4: (3) / (1) * 100 (in per cent)
5: [(1) - (2)] / (2) * 100 (in per cent)
Source: COMEXT.

Table B2. Intra-European Union trade. Mirror statistics related to SITC 03. In 1000 ECU

A		Importing countries												
Exporter		France	BLEU	Nether-lands	Germany	Italy	"United Kingdom	Ireland	Denmark	Greece	Portugal	Spain	Sweden	Finland	Austria
	1	1.345.722	466 068	360 374	771 896	1 190 183	283 336	51 469	135 263	78 789	261 111	947 181	125 629	23 469	119 113
EUR15	2	1.296.012	458 172	325 023	982 034	981 403	322 372	63 334	116 747	70 142	320 401	831 194	126 464	24 247	95 333
	3	49 710	7 895	35 350	- 10 137	208 781	-39 036	-11 865	18 516	8 647	-59 291	115 987	-835	-777	23 779
	4	4 %	2 %	11 %	-21 %	21 %	-12 %	-19 %	16 %	12 %	-19 %	14 %	-1 %	-3 %	25 %

B		Exporting countries												
Importer		France	BLEU	Nether-lands	Germany	Italy	"United Kingdom	Ireland	Denmark	Greece	Portugal	Spain	Sweden	Finland	Austria
	1	605 274	232 500	1 021 925	540 782	197 497	823 444	193 357	1 538 113	112 818	183 484	563 199	139 562	5 988	1 657
EUR15	2	565 324	264 034	895 623	454 772	208 408	714 647	182 477	1 632 640	121 929	171 781	629 984	161 484	1 518	8 258
	3	-39 950	31 533	-126 302	-86 011	10 911	-108 798	-10 880	94 527	9 111	-11 703	66 784	21 922	-4 469	6 601
	4	-7 %	14 %	-12 %	-16 %	6 %	-13 %	-6 %	6 %	8 %	-6 %	12 %	16 %	-75 %	398 %

C		EUR15
	1	6 159 603
EUR15	2	6 012 880
	3	-146 723
	4	-2 %

D		EUR15
	1	6 162 733
EUR15	2	6 012 992
	3	-149 741
	4	-2 %

Table A: 1: value reported by importing country 3: (1) - (2)
2: value reported be exporting country 4: (3) / (2)* 100 (in per cent)
Table B: 1: value reported by importing country 3: (2) - (1)
2: value reported be exporting country 4: (3) / (1)* 100 (in per cent)
Table C: 1: value reported by importing country 3: (2) - (1)
2: value reported be exporting country 4: (3) / (1)* 100 (in per cent)
Table D: Same as C including data not broken down by partner country
Source: COMEXT.

Table B3. Trade of fish, crustaceans and molluscs and preparations thereof between Norway and the European Union

	Norwegian exports to EU		EU imports from Norway		Mirror discrepancies			
	in 000 ECU	in tonnes	in 000 ECU	in tonnes	in 000 ECU	in per cent	in tonnes	in per cent
EUR15	1.527.859	622 126	1 541 011	572 617	- 13 152	- 0.9	49 509	8.6
France	251.209	80 215	32 234	12 861	218 975	679.3	67 355	523.7
Belg.-Luxbg.	40 090	13 595	7 354	2 106	32 737	445.2	11 490	545.7
Netherlands	59 156	44 141	30 224	21 817	28 932	95.7	22 324	102.3
Fr. Germany	190 454	83 775	389 244	134 995	- 198 789	- 51.1	- 51 220	- 37.9
Italy	125 138	25 356	17 493	3 840	107 645	615.4	21 516	560.4
Utd. Kingdom	167 771	64 289	150 585	51 770	17 185	11.4	12 519	24.2
Ireland	536	505	174	139	363	208.6	366	263.0
Denmark	261 807	159 569	514 291	220 118	- 252 484	- 49.1	- 60 549	- 27.5
Greece	12 463	4 828	3 158	1 766	9 305	294.6	3 062	173.4
Portugal	161 344	53 592	142 291	45 788	19 053	13.4	7 804	17.0
Spain	90 521	27 349	10 818	3 526	79 703	736.8	23 823	675.6
Sweden	131 127	53 834	210 203	64 309	- 79 076	- 37.6	- 10 476	- 16.3
Finland	31 942	10 242	31 962	9 337	- 20	- 0.1	905	9.7
Austria	4 301	835	982	246	3 320	338.2	589	240.0

Discrepancy in value = exports declared by Norway - imports declared by the Member State
Discrepancy in per cent = (exports declared by Norway - import declared by MS) / imports declared by MS
Source: Eurostat-Comext (16/09/1997)

Mirror exercise in Finland - Sweden trade 1995

Swedish Board of Customs
Statistics Sweden, 1998-02-01

Introduction

This exercise was launched as one part of a joint mirror study of trade between Nordic countries. It was decided at a meeting with the Nordic Contact Group (Denmark, Finland, Iceland, Norway and Sweden) for Foreign Trade Statistics that the results from the five studies should be part of a joint Nordic report on Mirror Statistics Exercise, later to be presented at a Trade Committee meeting of the Community. This study will later be followed by a new Sweden - Finland mirror exercise which is one of several different SLIM studies carried out in individual Member States.

This first mirror statistics exercise has been an interesting and useful experience, examining how this two new Member States have implemented and adapted the Community regulations for Intra as well as Extra trade flows. 1995 was the first year Sweden and Finland used the Intrastat system for Intra-trade data. The new statistical systems- both for Intra and Extra data - introduced substantial changes in the way trade data was compiled for the statistics compared to previous years. Both Sweden and Finland had to replace their national commodity classification with the more detailed CN system. All these changes have certainly influenced the data quality and the results of the mirror exercises for this particular year in both countries.

The exercise in Sweden was concentrated to compare chapters 27, 84 and 87 since they showed large discrepancies in both dispatches and arrivals. The most significant reason for the discrepancies proved to be Swedish confidentiality, which caused a distorted mirror image. The confidentiality impact is more an inadequacy in output of data rather than different treatment in partner countries.

We have found other reasons for discrepancies, for example:

1) nationally different coding used for type of transaction and values to be compiled in accordance. Sweden use only the Column A type of transaction code which makes it difficult to separate repaired goods from goods for inward/outward processing. This make it impossible to check if provided values are in compliance with the appropriate rules for valuation of these two types of transactions.

2) foreign affiliates invoicing from an office in Sweden but delivering goods directly from another Member state. There is no obligation for the affiliate in Sweden to supply Intrastat declarations and the Swedish buyers may also be unaware of the country of dispatch, making it difficult for them to provide correct information.

3) the use of different CN8 positions in the two partner countries, not only within chapters but even across chapter levels. This problem will not disappear with a future reduction of the number of headings; it requires that personnel, submitting the data, is skilled in classifying commodity in conformity with the definitions of CN.

Main results

1) All figures are in thousands of ECU.
2) Values and percentage of the mirror discrepancies is calculated:
   a) SE dispatches/FI arrivals as (SE dispatches - FI arrivals) / FI arrivals
   b) SE arrivals/FI dispatches as (SE arrivals - FI dispatches) / FI dispatches

The influence of Swedish confidentiality on the mirror results

On the global level of Sweden-Finland trade the influence of the Swedish confidentiality seems to be a major cause of creating existing discrepancies.

The total value of goods subject to confidentiality for *dispatches to Finland* is 343.735 ECU.

SE dispatches/FI arrivals:	Value	Per cent
Observed discrepancy	-566.228	-17,6
Adjustment for Swedish confidentiality	+343.735	
Remaining discrepancy	-222.493	-6,9

The total value of goods subject to confidentiality for *arrivals from Finland* is 36.777 ECU.

SE arrivals/FI dispatches:	Value	Per cent
Observed discrepancy	-86.856	-3,1
Adjustment for Swedish confidentiality	+36.777	
Remaining discrepancy	-50.079	-1,7

Exercise within selected chapters

Chapter 27

Swedish dispatches/Finnish arrivals:
Confidentiality of 271600 is the main reason for the discrepancy level.

	COMEXT value data	Adjustment for confidentiality	Adjusted values
SE disp.	45.353	+64.293	109.646
FI arr.	106.536		106.536
Discrepancy	-61.183		+3.110
in per cent	-57,4		+2,9

Swedish arrivals/Finnish dispatches:

	COMEXT value data	Adjustment for confidentiality	Discrepancy explained	Adjusted values
SE arr.	205.866	+8.498	-4.603	209.761
FI disp.	178.796			178.796
Discrepancy	+27.070			+30.965
in per cent	+15,1			+17,3

A 100 per cent discrepancy in HS 271320 and 271600 was due to confidentiality.

A Swedish arrival in HS 270900 with no Finnish dispatch consisted of one single consignment, treated by the forwarding agent as an arrival from Finland when it in fact turned out to be a regular import from outside EU. The Intrastat figures may not have been corrected.

Confidentiality also apply to some headings under HS 271000 but in this case it increases already existing and not explained discrepancy.

Chapter 84

Swedish dispatches/Finnish arrivals:

	COMEXT value data	Adjustment for confidentiality	Adjusted values
SE disp.	455.471	+61.087	516.558
FI arr.	516.570		516.570
Discrepancy	-61.099		-12
in per cent	-11,8		0

Confidentiality apply to many positions here. Adding their value brings the total discrepancy of the chapter close to zero, but for single positions discrepancies will remain. (See also comment regarding chapter 87).

Swedish arrivals/Finnish dispatches

	COMEXT value data	Adjustment for confidentiality	Adjusted values
SE arr.	431.246	+200	431.446
FI disp.	504.280		504.280
Discrepancy	-73.035		72.835
in per cent	-14,5		-14,4

Existing discrepancies is to a minor degree affected by confidentiality and remains to be reconciled. No plausible explanations have been found. An attempt to estimate the accuracy of the figures by comparing them with those of 1996 proved difficult, since quite a few positions are changed and some positions do not exist any longer.

Chapter 87

Swedish dispatches/Finnish arrivals:

	COMEXT value data	Adjustment for confidentiality	Adjusted values
SE disp.	186.300	+87.071	273.371
FI arr.	302.420		302.420
Discrepancy	-116.121		-29.043
in per cent	-38,4		-9.6

Confidentiality apply to HS 870410 and 870423. If this is taken into account the discrepancy is considerably reduced.

When examining the discrepancies in other positions we tried the approach of comparing supplementary unit (where it is recorded) and combining that with the figures from the Comext file. However, there seems to be differences between the national statistics and the Comext statistics. This may be caused by different ways to treat data or some deficiencies in the published figures. Some part of the discrepancies is explained when Swedish confidential data on the HS6 positions is included when comparing it to the Finnish arrivals. No vehicles seem to have been dispatched on HS 870410 and 870421 but Comext data shows an arrival of vehicles to Finland.

In HS 870190 about 1/5 of the number of vehicles dispatched from Sweden arrive in Finland, yet the Comext value is eleven times higher for Finnish arrivals than the Swedish dispatches. Here we have

identified a problem with powered lawn mowers, which Sweden in a wider extent classify to this position, while Finland tend to use HS 843311. As a further complication the Swedish dispatches in this position is confidential.

Swedish arrivals/Finnish dispatches:

	COMEXT value data	Adjustment for confidentiality	Adjusted values
SE arr.	166.360	0	166.360
FI disp.	198.279		198.279
Discrepancy	-31.919		-31.919
in per cent	-16,1		-16,1

There are cases where matching flows are non-existing when comparing the national data on arrivals of passenger cars and trucks with partner country data in the Comext database. There are a few arrivals from Finland on HS 870322, 870333 and 870421 registered in the Swedish statistics but matching dispatch could not be found.

The discrepancy in HS 870790 is, at least to a part, caused by using this position in many cases instead of positions in HS 8708 (body parts).

A final comparison with some of the 1996 data was made for the positions 8701-8707 and it did not change the findings in the comparison of 1995 data. The same type of differences in valuation of goods existed, e.g. value of goods is sometimes dependent on what type of transaction codes is recorded. The coding differs between Finland and Sweden as mentioned in the introduction. This seem to indicate that it is important to co-ordinate implementation of methodology and produce the statistics in compliance with the regulations to avoid unnecessary discrepancies.

Summary

Chapter		Value	In per cent
Swedish dispatches/Finnish arrivals:			
1-99	Original discrepancy	-566.228	-17,6
	Remaining discrepancy	-222.493	-6,9
Swedish arrivals/Finnish dispatches:			
1-99	Original discrepancy	-86.856	-3,1
	Remaining discrepancy	-50.079	-1.7
Selected chapters:			
Swedish dispatches/Finnish arrivals:			
27	Original discrepancy	-61.183	-57,4
	Remaining discrepancy	3.110	+2,9
84	Original discrepancy	-61.099	-11,8
	Remaining discrepancy	-12,0	0
87	Original discrepancy	-116.121	-38,4
	Remaining discrepancy	-29.043	-9,6
Swedish arrivals/Finnish dispatches:			
27	Original discrepancy	27.070	15,1
	Remaining discrepancy	30.132	17,3
84	Original discrepancy	-73.035	-14,5
	Remaining discrepancy	-72.835	-14,4
87	Original discrepancy	-31.919	-16,1
	Remaining discrepancy	-31.919	-16,1

Conclusions

Sweden can make the following remarks of this rather small study of the bilateral discrepancies in Sweden-Finland trade.

1. The major cause of the discrepancies on chapter level seems to be the confidential measures made on Swedish dispatch data.
2. The discrepancies on Swedish arrivals is not caused by confidentiality. They still remain to be explained and a more detailed examinations of partner flows is needed to reconcile the data.
3. To be able to reconcile the discrepancies it is necessary to go deeper into the data and try to isolate matching partner data by commodity item and reported period. This will finally require a partner country agreement to exchange detailed and confidential data between the National administrations.
4. We consider it important that a future study require a more detailed and co-ordinated plan with the partner country to avoid double work and effectively use the combined personnel resources.
5. The experience from this exercise will be input how to plan the Single flow study on Sweden-Finland trade that Sweden will carry out as part of the decided EDICOM SLIM studies.

Mirror exercise in Denmark - Iceland trade 1995

Statistics Iceland

A joint project of the Nordic Contact Group comparing external trade figures between the Nordic countries. The goal of the project is to locate discrepancies in these figures and find explanations if possible.

Source of information: Jens Thomasen at Eurostat provided tables for HS2 and HS6 from COMEXT, Icelandic and Danish national external trade statistics and Icelandic exporters. The year in question is 1995. Value in 1000 ECUs.

1. HS2, Iceland and the other Nordic countries, COMEXT data

Icelandic export/partner country import
Iceland exports to the other Nordic countries less than what the other Nordic countries record as imports from Iceland. The greatest discrepancies are in HS chapters 03, 16, 23, 84 and 89 (see appendix A). The greatest discrepancy is in trade with Denmark and the smallest in trade with Finland. Chapter 16 stands out, accounts for 54 per cent of the discrepancy for Denmark and 65 per cent of the discrepancy for all the countries combined.

Icelandic import/partner country export
Iceland imports from Denmark and Sweden less than what these countries record as exports to Iceland but imports to Iceland from Norway and Finland are higher than what these countries export to Iceland. The greatest discrepancies are found in HS chapters 27, 30, 39, 48, 82 and 84 (see appendix A). Again, the greatest discrepancy is in the trade with Denmark and smallest in trade with Finland.

2. HS6, Iceland and selected partner country (Denmark), COMEXT data

Focus on HS6 for selected chapters and one partner country. Denmark was selected as the country where the greatest discrepancies occur regarding the flow in both directions.

When comparing Icelandic imports with Danish exports and Icelandic exports with Danish imports, the Danish figures exceed the Icelandic ones in both cases.

Danish imports from Iceland exceed Icelandic exports to Denmark by 7,4 mill. ECUs, making Icelandic exports 6.4 per cent lower than the Danish imports. Of this discrepancy, 3,9 mill. ECUs, or 65 per cent, relates to chapter 16 (Preparations of meat and fish, etc.).

Danish exports to Iceland exceed Icelandic imports from Denmark by 14 mill. ECUs, thus making Icelandic imports 10.0 per cent lower than the Danish exports. The greatest discrepancies are found in chapter 27 (Oil etc.), 7,1 mill. ECUs, chapter 84 (Machinery and mechanical appliances), 5,3 mill. ECUs, and chapter 30 (Chemicals), 3,8 mill. ECUs.

Table D1.

Icelandic exports/partners imports. 1995. Discrepancies. Million ECU and per cent

	Discrepancies in value				Discrepancies in per cent[1)]			
	Partner countries				Partner countries			
Chapters	Denmark	Norway	Sweden	Finland	Denmark	Norway	Sweden	Finland
03	-654	-1.427	2.598	163	-3.4	-18.0	45.2	25.0
16	-3.939	-226	-2.847	-228	-6.8	-38.6	-54.0	-69.7
23	-1.175	40		-313	-4.3	0.3		-8.1
43	-517	-2	-12	638	-15.3	-11.1	-7.6	64.2
72	-44	625			-84.7	75.2		
84	-228	1.292	-1.296	-12	-50.4	31.6	-44.2	-100.0
89	0	-1.569	0		69.5	-18.9	-100.0	
99	-685	253			-41.0	2.530.0		
Others	-111	-806	-392	-324				
All chapters	-7.352	-1.820	-1.950	-75	-6.4	-3.9	-9.8	-1.1

Icelandic imports/partners exports. 1995. Discrepancies. Million ECU and per cent

	Discrepancies in value				Discrepancies in per cent[2)]			
	Partner countries				Partner countries			
Chapters	Denmark	Norway	Sweden	Finland	Denmark	Norway	Sweden	Finland
03	2.304	-133	210		5.912.3	-8.4	4.407.3	
11	-99	-5	681		-24.3	-71.4	49.6	
17	733	-13	103	127	18.9	-28.3	27.5	145.2
20	711	-197	-35		84.0	-22.3	-17.6	
27	-7.052	5.615	233	15	-69.2	9.7	61.0	23.1
28	402	122	1.667	3	67.7	169.4	524.3	46.8
30	-3.760	54	-2.602	108	-29.7	9.1	-32.6	44.5
31	137	761	256		652.0		255.3	
32	-549	-94	-134	172	-29.2	-10.5	-9.6	5.545.2
33	-1.254	-38	-169	8	-59.8	-49.4	-22.4	17.6
39	-144	3.594	1.666	27	-1.9	158.7	35.9	2.4
40	449	-796	-1.433	34	136.7	-69.3	-72.2	14.2
44	-61	308	-458	683	-2.5	11.6	-11.5	10.9
48	-772	4.758	2.315	292	-15.3	116.6	19.7	6.2
61	-662	-478	-851	41	-21.0	-71.9	-70.5	31.6
62	-1.988	-199	-608	-1	-36.2	-46.9	-64.3	-0.4
64	-331	-1.469	-67	-51	-47.7	-99.3	-26.8	-44.6
73	-673	217	500	249	-10.2	6.6	15.9	39.7
76	787	49	109	61	41.2	4.2	5.7	785.8
82	-47	142	-8.484	38	-2.9	67.3	-82.0	28.6
84	-5.256	-622	-1.031	-1.208	-26.3	-5.6	-8.5	-34.2
85	57	-906	1.026	64	0.6	-12.2	10.0	3.1
87	-1.130	-585	1.463	-249	-42.9	-68.6	82.1	-24.9
89	1.493	2.814	7	4	105.6	581.4	5.4	54.2
94	1.496	674	-805	248	25.3	29.1	-13.0	59.2
95	-36	509	-335	38	-4.5	135.0	-53.5	58.9
97	-126	-2	-878		-75.0	-66.7	-99.4	
99	-641	-7.425		36	-83.8	-98.7		
Others	2.020	2.478	-472	829				
All chapters	-13.990	9.133	-8.128	1.567	-10.0	7.2	-8.0	6.8

[1] (exports declared by Iceland–imports declared by the partner country)/imports declared by the partner country
[2] (imports declared by Iceland–exports declared by the partner country)/exports declared by the partner country
Source: Comext.

3. Icelandic exports and Danish imports, chapter 16, COMEXT data

In view of the above figures, chapter 16 was selected for further comparison of Icelandic exports and Danish imports.

Still working with the Comext figures, the export from Iceland belonging under chapter 16 amounted to 53,7 mill. ECUs while the import recorded in Denmark was 57,6 mill. ECUs, giving a discrepancy of –3,9 mill. ECUs. The largest trade is within HS6 160520 (see below) although this is not the chapter with the greatest discrepancy. The discrepancies occur in HS6 160412 (herring), –1,8 mill. ECUs, and especially in 160430 (caviar substitutes), –3,1 mill. ECUs, or 78 per cent of the IS-DK discrepancy for chapter 16. These are chapters in which Iceland reports only minor exports to Denmark.

Table D2. Icelandic exports, Danish imports, chapter 16. Value and discrepancies, 1995.

	Mill ECU		Discrepancy	
HS-Level	Export of Iceland	Import of Denmark	Value	Per cent
16	53.696	57.635	-3.939	-6.8
1604	447	5.341	-4.894	-91.6
160412	400	2.231	-1.831	-82.1
160430	38	3.096	-3.058	-98.8
1605	53.249	52.294	955	1.8
160520	53.249	52.294	955	1.8

Source: Comext.

4. Further comparison: Icelandic exports and Danish imports, national figures

For further study it was decided to concentrate on HS4 1604, i.e. HS 160412 and 160430 and base the comparison on tonnes rather than value in order to exclude exchange rate differences and fob/cif valuation.

160412, Herring

According to the Icelandic national figures the total Icelandic export of HS6 160412 was 742 tonnes, of which 438 tonnes were sold to Denmark. There is no need to correct the Icelandic figures with regard to confidentiality since confidentiality is only attached to one product as far as exports are concerned and it applies only to monthly figures.

According to the Danish national figures, on the other hand, Denmark reported that 1.655 tonnes were imported from Iceland. Iceland is the country of origin for all the 1.655 tonnes but the country of consignment for 1.280 of the 1.655 tonnes. In this study the balance of 375 tonnes (country of consignment is other than Iceland) was excluded as corresponding records in the Icelandic trade statistics would probably not report Denmark as the final destination. Looking only at the records where Iceland is the country of consignment and country of origin, the tonnes in question are 1.280, imported into Denmark under procedure codes 40000 (normal import) or 41002 (goods for processing).

The difference between the Icelandic and Danish national figures, therefore, lies in the fact that Denmark reports 842 tonnes more imports from Iceland than Iceland reports as export to Denmark.

Table D3. Icelandic exports, Danish import of herring. Quantity. Tonnes.1995

Icelandic national figures, export in 160412

	Weight in tonnes	Per cent
Denmark	438	59.0
Russia	226	30.5
Other countries	78	10.5
Total	742	100.0

Danish national figures, import from Iceland in 160412

HS6	Procedure code	Weight in tonnes	Per cent
160412	40000	1.186	92.7
160412	41002	94	7.3
Total		1.280	100.0

Difference

	Iceland	Denmark	Difference
	Weight in tonnes	Weight in tonnes	
160412	438	1.280	-842

Source: Statistics Iceland/Statistics Denmark.

Most of the Danish import (93 per cent) is recorded under the procedure code for normal import but 7 per cent fall under the procedure code for goods for processing. In our consultations with Icelandic exporters they stated that the product exported to Denmark was ready for consumption (canned) and therefore it should not be imported under the procedure code goods for processing. In view of this the logical explanation is that there might have been a mix-up of either the HS code or the procedure code.

This conclusion, however, explains only part of the discrepancy, leaving the other part still unexplained.

160430, Caviar substitutes

According to Icelandic national figures, the total Icelandic export of HS 160430 was 1.286 tonnes, of which only 3 tonnes were sold to Denmark. There is no need to correct the Icelandic figures with regard to confidentiality since confidentiality is only attached to one product as far as exports are concerned and it applies only to monthly figures.

According to Danish national figures, Denmark reported that 706 tonnes were imported from Iceland. Of those 706 tonnes, Iceland was the country of origin and country of consignment as regards 367 tonnes; for 10 tonnes Iceland was the country of origin but not the country of consignment, while for the remaining 329 tonnes Iceland was the country of consignment but not the country of origin. This study only covers the 367 tonnes where Iceland was both the country of origin and country of consignment. The reason is that in case of records where the country of consignment is other than Iceland, the corresponding records in the Icelandic trade statistics would probably not report Denmark as the final destination. Furthermore, records where Iceland is not reported as the country of origin are not included in the Danish external trade statistics because Denmark reports its external trade figures with third countries based on country of origin. The 367 tonnes in question are imported into Denmark under the procedure code 40000 (normal import).

The difference between the Icelandic and Danish national figures, therefore, is that Denmark reports 364 tonnes more imports from Iceland than Iceland reports as exports to Denmark.

Table D4. Icelandic exports, Danish import of caviar substitutes. Quantity. Tonnes. 1995

Icelandic national figures, export in 160430

	Weight in tonnes	Per cent
France	733	57.0
United Kingdom	279	21.7
Belgium	106	8.2
Denmark	**3**	**0.2**
Other countries	165	12.8
Total	1 286	100.0

Danish national figures, import from Iceland in 160430

HS6	Procedure code	Weight in tonnes	Per cent
160430	40000	367	100.0

Difference

	Iceland	Denmark	Difference
	Weight in tonnes	Weight in tonnes	
160430	3	367	-364

Source: Statistics Iceland/Statistics Denmark.

The Icelandic figures show that there is almost no export of caviar substitutes to Denmark. As shown in the table, the majority of the export of this commodity is to France and the United Kingdom.

Therefore, the question arose whether this export to France might have been transported via Denmark, but that is not the case.

The main part of the Icelandic export of caviar substitutes is the export of semi-conserved lumpfish roes. In our consultations with Icelandic exporters they stated that caviar substitutes (semi-conserved lumpfish roes) were not exported to Denmark. What is exported to Denmark, on the other hand, consists of salted lumpfish roes, i.e. the raw material for the semi-conserved lumpfish roes (the processed good). The salted lumpfish roes fall under HS6 030520 (livers and roes, dried, smoked, salted or in brine). The question therefore arose whether imports of salted lumpfish roes could have been recorded under HS6 160430 in the Danish national figures instead of HS6 030520, as they should. The Icelandic national figures for 030520 show that the total export from Iceland under 030520 is 1.552 tonnes, of which 360 tonnes are exported to Denmark. In the Danish national figures, however, only 42 tonnes are registered as imports from Iceland (i.e transit). The difference in 030520 between the Icelandic and Danish national figures thus lies in the fact that Iceland reports 318 tonnes more exports to Denmark than Denmark reports as imports from Iceland. Comparing the difference of 318 tonnes (IS>DK) of salted roes with the difference of 364 tonnes (IS<DK) for the caviar substitutes supports the theory of a possible mix-up of HS codes.

Table D5. Icelandic exports, Danish imports of salted lumpfish roes. Quantity. Tonnes. 1995

Icelandic national figures, export in 030520

	Weight in tonnes	Per cent
Sweden	523	33.7
Denmark	**360**	**23.2**
Greece	230	14.8
France	110	7.1
Other countries	329	21.1
Total	1 552	100.0

Danish national figures, import in 030520

HS6	Procedure code	Weight in tonnes	Per cent
030520	40000	42	100.0

Difference

	Iceland	Denmark	Difference
	Weight in tonnes	Weight in tonnes	
030520	360	42	318

Source: Statistics Iceland/Statistics Denmark.

Summary

A comparison of COMEXT data for the Nordic countries shows that Iceland exported less to the other Nordic countries than what the other Nordic countries recorded as imported from Iceland. The greatest discrepancy is in trade with Denmark and HS chapter 16 stands out in this respect.

Iceland imports from Denmark and Sweden less than what these countries export to Iceland but imports to Iceland from Norway and Finland are greater than what these countries export to Iceland. The greatest discrepancy is in trade with Denmark and the greatest discrepancies lie in HS chapters 27, 30 and 84.

A further comparison of Icelandic exports and Danish imports belonging under HS chapter 16, shows that the greatest discrepancies are found in the trade of herring and caviar substitutes.

A close examination of the national data for both Iceland and Denmark and consultations with Icelandic exporters led to the conclusion that the most likely cause of the discrepancies observed was a mix-up of HS codes (and possible the procedure codes as well).

To sum up the result of the study, it raised a number of questions which resulted in no concrete answers, although it suggested some plausible explanations. In addition, the researchers have learned the working procedures for examining the data, and that in itself has made the effort worth while.

Thanks are due to Rewal Schmidt-Sörensen, Jens Thomasen and Hans Kristian Østereng for their valuable contribution to the study.

Mirror exercise between Norway and Denmark with focus on fish exports from Norway 1995

Statistics Norway

Preface

This investigation is part of a common exercise in 'mirror' statististics among the Nordic countries. The first plans were made at a meeting in Luxembourg in the Nordic Contact Group for Foreign Trade Statistics 5 November 1996. A preliminary investigation was done during the 1st quarter 1997 to isolate the main discrepancies and a detailed report of the investigation was presented at the Reykjavik Contact group meeting 2-3 July 1997. The investigation is supported by EUROSTAT, which produced material for the study.

1. Introduction

Trade data for 1995 were selected. The main discrepancies were isolated by using 'mirror' tables produced by EUROSTAT taken from the COMEXT database. The commodity aggregate level is HS-2, which is identical to the Customs Tariff in the EU and EFTA countries. The detailed investigation was carried out on the basis of 1995 data files aggregated to CN-8 by procedure codes by country of consignment. Because Norway does not use CN (Combined Nomenclature), the comparison was done on the HS-6 aggregate level, which gives comparable figures for both EU and Norway.

2. Main results

Looking at the flow of goods from Norway to Denmark in 1995, the total *Danish imports exceed the total Norwegian exports with 530 million ECU or 25 percent.*

Of the 530 million ECU in deficit in the COMEXT data, 248 million is connected only to one chapter; 03-fish.

According to Danish import statistics, 216.7 thousand tonnes of fish and fish products (value 3 714 million DKK) were declared into Denmark during 1995; defined as chapter 03 and headings 1604 and 1605 (SITC 03).

The Norwegian export declarations with fish destined for Denmark this year represented 159.4 thousand tonnes (value 2 166 million NOK, or 2 450 million DKK).

The discrepancy between the Norwegian 1995 exports of fish and the Danish imports is minus 57,3 thousand tonnes or 26 percent. Of this negative discrepancy, 25.8 thousand tonnes are 030212 - fresh and chilled salmon. The second greatest discrepancy is cod products: 030551 - dried cod, whether or not salted and 030562 - salted cod. These three subheadings cover 42.2 thousand tonnes or 74 percent of the difference of minus 57.3 thousand tonnes.

The main reason for the discrepancies found above is the extensive use of the Danish customs procedure 42000 for temporary imports exempting VAT/taxes (a transit procedure). If the import procedure 42000 is not included , the Danish imports are 131.9 thousand tonnes, or 27.5 thousand tonnes lower than the Norwegian exports.

3. Identification of the main reasons for the discrepancies

The tables from Eurostat show Norwegian exports and Danish imports in 1000 ECU. The discrepancies are here defined as the (NO-exports - DK-imports) / DK-imports in percentage. For the entire year 1995 the Danish imports exceed the Norwegian imports with 530 million ECU or 25 per cent.

This is by far the biggest total discrepancy when looking at the Norwegian exports to the other Nordic countries. The second largest is with Sweden, at 38 million ECU.

When studying the NO-DK trade discrepancy of 530 million, we find that chapter 03-fish accounts for nearly 250 million. Table E1 below shows that this is 47 per cent. Furthermore, all chapters with negative differences amount in total to - 678 million ECU, and all 'plus' chapters to 148 million.

Table E1. Norwegian - Danish discrepancies. 1995. Million ECU

Chapter	1. Norwegian exports	2. Difference NOexports - DKimports	3. Total of the confidential commodities	4. Percentage of total minus, 678 mill ECU	5. Percentage difference, 530 mill ECU
All chapters	1 604	- 530	-	-	100
03-fish	256	- 248	0	37	47
39-plastics	43	- 74	53	11	14
27-mineral fuels	390	- 73	1	11	14
31-fertilisers	0	- 44	39	7	8
48-paper	34	- 42	24	6	8
84-machinery	118	- 36	2	5	7
76-aluminium	76	- 30	-	4	6
81-base metals	0	- 21	0	3	4
94-furniture	49	- 21	-	3	4
28-inorganic chemicals	7	- 18	6	3	3
89-ships	62	- 12	-	2	2
99-confidential	147	+ 114	146	-	-
All minus	chapters = 678 mill. ECU				
All plus	chapters = 148 mill. ECU				

Studying the table E1 further, we see that for chapter 99, there is a positive difference of 114 million ECU. However, in the data Norway delivers to Eurostat, all commodity numbers with confidentiality are recorded as '99'. Table E2 below shows how these commodities are distributed by chapters.

Table E2. Norwegian exports. Country of destination = Denmark. Confidential commodities. 1995

Chapter	Value million NOK	Value million ECU
Total exports	13 380.7	1 604.2
Total Confidential	1 219.6	12 per cent restricted
--"--		146.2
39-plastics	442.4	53.1
31-fertilisers	323.4	38.8
48-paper	202.5	24.3
28-inorganic chemicals	49.2	5.9
32-tanning,pigments	43.4	5.2
73-iron/steel prod	24.6	3.0
47-pulp of wood	22.2	2.7
72-iron and steel	19.8	2.4
34-soap/wax etc.	15.8	1.9
27-mineral fuels	13.6	1.6
79-zinc	13.4	1.6
96-miscellaneous	11.2	1.3
Others :	38.2	4.6

If correcting the chapters for confidential data in table E1, and especially for the chapters 39, 31 and 48, - the discrepancies would be remarkably less.

Exports of Norwegian owned stabilized crude oil and oil products (propane, butane) out of Teesside, UK, are **not** included in the Norwegian export statistics, because it is already published as unstabilised crude oil by pipelines to UK. For chapter 27 we should subtract crude oil from Teesside to Denmark for 221 Million NOK, or 27 million ECU (in table E1 above), in case Denmark declares this imports as stabilized crude oil from UK.

In conclusion, the discrepancy for chapter 03, fish, dominates the picture completely. So this is the commodity to examine more closely when looking at the flow of goods from Norway to Denmark.

4. Mirror investigation of fish

Before comparing the DK import figures with the Norwegian exports, some limitations should be done on the file we received with national Danish trade data. The treatment was the following:

4.A. General exclusions

The commodity chosen for this investigation is HS 03 (Chapter 3 in the Customs Tariff), plus the headings 1604 and 1605 (equal to SITC 03, fish and fish products). From the file, small quantities and values classified under headings 1601, 1602 and 1603 are excluded. Some records with irrelevant procedure codes were also excluded. These procedure codes are:

21002 - temporary exports for processing
31810 - re-export
99000 - transactions not included in the trade statistics
Procedure 40980, imports already in the statistics, was not excluded, but was accidently included, but this should have a minor influence.

Taken into account these exclusions, the total Danish fish imports in 1995 for SITC 03 with Norway recorded as country of origin, are:

4.1. SITC 03, DK imp from NO (total) : ***222 051 tonnes*** ***3 796 mill DKK***

4.B. Selection by country
For the next treatment only imports with Norway (028) as **country of consignment (C. of C.)** (and country of origin) were selected. The reason for this is that if country of consignment is e.g. Sweden or Finland, it is likely that these countries are the countries of destination in the Norwegian export declarations.

However, when Statistics Denmark publishes their import statistics, country of origin will be the normal selection criterion.

*4.2. SITC 03, DK imp from NO (+NO as C. of C.) : **216 742 tonnes 3 714 mill DKK***

4.C. Procedures
The 4. B-data (4.2 totals) above are investigated further regarding procedure codes, which indicate what kind of handling or status the imports will have while goods are declared by the Danish Customs.

The analysis of customs procedures may have a significant influence, more often on import figures than on export figures, and it is necessary to deal with this by more closely investigating the mirror statistics discrepancies.

An analysis shows that most of the Danish imports are under ordinary imports. However, the use of procedure 42000 exemption of VAT/taxes, is extensively applied for fish products. In addition there are significant quantities of fish for processing (procedure codes 41002 and 51002), which are included in the statistics.

Table E3 illustrates how customs procedures may be a basic problem in establishing mirror statistics. As Denmark publishes national trade statistics according to the special trade principle, procedure 42000 will **not** be included. However, when Denmark delivers data to Eurostat, imports under procedure 42000 are included.

Table E3. Danish imports by procedures, SAD box 37

		Kg	DKK
40000	**Ordinary imports**	**120 275 730**	**1 496 983 051**
40512	From processing (Suspension system)	10 075	94 717
40717	From warehouses	123 712	2 804 504
40980	Imports already in statistics	4 829	26 022
41001	Imports for repair	14 400	112 527
41002	**Imports for processing**	**7 470 085**	**92 983 244**
41717	For processing from warehouses	42 242	521 509
51002	**Into Processing (Suspension system)**	**3 679 421**	**8 885 714**
51717	From warehouses (Suspension system)	9 345	397 723
71007	**Into Warehouses**	**313 325**	**8 605 285**
Total	Imports excluded 42000	131 943 164	1 611 396 296
42000	**VAT exemption/tax free**	**84 812 885**	**2 102 965 922**
Total	**Imports, included 42000**	**216 756 049**	**3 714 362 218**

4.D. Discrepancies by main fish products
By tables E4 and E5 we compare the total Danish imports included procedure 42000, with the Norwegian exports. They show the differences on HS-6 level and rank the discrepancies. Table E4 ranks all the commodities where the Danish imports are larger than the Norwegian exports, and table E5 the opposite situation where the Danish imports are less than the Norwegian exports to Denmark.

The result from this exercise tells us that 25.8 thousand tonnes (or 45 per cent) of the total discrepancy on minus 57.3 thousand tonnes is related to HS-6 no 030212 - fresh and chilled salmon. The next two largest discrepancies are on cod products: 030551 - dried, salted cod (-10.1 thousand tonnes, 18 per cent) and 030562 - salted cod (-6.6 thousand tonnes, 12 per cent). This covers 75 per cent of the negative difference.

Further, 030420 - frozen filets, 030350 - frozen herring, 030262 - fresh/chilled haddock and 030530 - filets, dried salted, contribute all together with -14.1 thousand tonnes or nearly 25 per cent.

Table 5 shows that only a few products are exported from Norway in larger quantities than the Danish Customs declare while importing.

Especially 030240 - fresh/chilled herring (+4.4 thousand tonnes, 8 per cent), with the next largest product 030360 - frozen cod (+1.3 thousand tonnes, 2 per cent).

Comparing Danish import statistics, excluding procedure code 42000
Tables E6 and E7 shows the discrepancies when Danish imports with procedure code 42000 ('transit' goods) are excluded. 030490 - frozen fish meat minced or not, represent by far the largest negative difference (table E6).

Table E7 shows the HS-6 groups with positive differences, and is somewhat related to the discrepancies found in table E4 with 030212 - fresh and chilled salmon and 030420 - frozen filets on the top of the list.

The Diff-1 column shows the discrepancies as they are calculated in the Eurostat mirror tables; (NO-exports - DK-imports) / DK-imports * 100.

The Diff-2 column calculates the share of the difference in per cent. For table 4 and 5, the formula is: (Diff NO-DK / 57.3 thousand tonnes * 100); to show the 'weight' of the difference (in fact mixing plus and minus will not add up to 100 per cent, but the 'weight' indicates the importance of the products).

Table E4. Differences *included* procedure 42000. 1995. Kg. Norwegian exports less than the Danish imports

1995	DK-imports	NO-exports	Diff: NO - DK	Diff-1, per cent	Diff-2, per cent
Total	216 777 704	159 458 887	- 57 318 817		
HS-6					
30212	69 201 524	43 386 620	-25 814 904	-59	-45,04
30551	13 031 034	2 881 132	-10 149 902	-352	-17,71
30562	7 336 672	717 436	-6 619 236	-923	-11,55
30420	8 938 004	4 432 405	-4 505 599	-102	-7,86
30350	4 323 954	452 130	-3 871 824	-856	-6,75
30262	7 230 923	3 882 376	-3 348 547	-86	-5,84
30530	2 939 770	352 611	-2 587 159	-734	-4,51
30263	17 464 608	16 128 750	-1 335 858	-8	-2,33
30269	4 068 941	2 863 902	-1 205 039	-42	-2,1
30410	3 067 990	1 875 543	-1 192 447	-64	-2,08
30490	1 615 033	492 809	-1 122 224	-228	-1,96
30250	7 521 996	6 494 639	-1 027 357	-16	-1,79
Others :	7 347 809	4 830 222	-2 517 587		

Table E5. Differences *included* procedure 42000. 1995. Kg. Norwegian exports larger than the Danish imports

1995	DK-imports	NO-exports	Diff: NO - DK	Diff-1, per cent	Diff-2, per cent
Total	216 777 704	159 458 887	- 57 318 817		
HS-6					
30331	1 415 756	2 020 995	605 239	30	1,06
30372	57 787	726 395	668 608	92	1,17
30360	1 365 783	2 671 428	1 305 645	49	2,28
30240	55 036 708	59 435 338	4 398 630	7	7,67
Others :	2 241 038	2 322 729	81 691		

Table E6. Differences when Danish procedure 42000 is *not* included. 1995. Kg. Norwegian exports less than the Danish imports

1995	DK-imports	NO-exports	Diff: NO - DK	Diff-1, per cent	Diff-2, per cent
Total	131.953.810	159.458.887	27 505 068	17	100
HS-6					
30490	846 501	492 809	-353 692	-72	-1,29
30265	2 108 000	2 042 965	-65 035	-3	-0,24
30192	507 697	456 578	-51 119	-11	-0,19
30530	402 057	352 611	-49 446	-14	-0,18
Others :	424 446	296 524	-39 214		

Table E7. Differences when Danish procedure 42000 is not included. 1995. Kg Norwegian exports larger than the Danish imports

1995	DK-imports	NO-exports	Diff: NO - DK	Diff-1, per cent	Diff-2, per cent
Total	131 953 810	159 458 887	27 505 068	17	100
HS-6					
30551	2 874 035	2 881 132	7 097	0	0,03
160420	37 452	141 839	104 387	74	0,38
30321	81 120	204 505	123 385	60	0,45
30562	578 096	717 436	139 340	19	0,51
30350	282 670	452 130	169 460	37	0,62
30613	111 944	367 001	255 057	69	0,93
30264	884 883	1 282 716	397 833	31	1,45
30729	1 755	443 796	442 041	100	1,61
30263	15 542 926	16 128 750	585 824	4	2,13
30410	1 273 414	1 875 543	602 129	32	2,19
30372	30 702	726 395	695 693	96	2,53
30331	1 223 009	2 020 995	797 986	39	2,9
30269	1 990 044	2 863 902	873 858	31	3,18
30322	407 849	1 430 331	1 022 482	71	3,72
30360	1 186 143	2 671 428	1 485 285	56	5,4
30262	2 266 139	3 882 376	1 616 237	42	5,88
30420	2 750 731	4 432 405	1 681 674	38	6,11
30250	4 639 217	6 494 639	1 855 422	29	6,75
30240	52.595.190	59.435.338	6 840 148	12	24,87
30212	35.681.908	43.386.620	7 704 712	18	28,01
Others :	3202240	3925444	723204		

4.E. The most significant fish products - a closer investigation

From the tables E4 - 7 above we found that the Danish imports are 57 319 tonnes higher than the Norwegian exports when Danish imports procedure 42000 is included. If the import procedure 42000 is not included, the Danish imports are 27 505 tonnes lower than the Norwegian exports.

From the same tables we selected the eight HS-6 groups with the largest discrepancies in thousand tonnes and ranked them:

Table E8. Commodity groups (HS-6) with large discrepancies. 1995. Tonnes

	Difference (2 - 1)	1 DK-imports (Incl. 42000)	2 NO-exports	3 DK-imports (Not 42000)	Difference (2 - 3)
Total, **all HS-6 groups**	-57 319	**216 778**	**159 458**	**131 954**	+27 505
Total, **8 most sign. groups**	-43 322	167 222	**123 922**	112 718	+18 887
030212 - fresh salmon	-25 815	69 202	43 387	35 682	+7 705
030551 - dried/salted cod	-10 150	13 031	2 881	2 874	+7
030562 - salted cod	-6 620	7 337	717	578	+139
030420 - frozen filets	-4 506	8 938	4 432	2 751	+1 681
030240 - fresh herring	**+4 399**	**55 037**	**59 435**	**52 595**	**+6 840**
030262 - fresh haddock	-3 349	7 231	3 882	2 266	+1 616
030250 - fresh cod	-1 027	7 522	6 495	4 639	+1 856
030360 - frozen cod	**+1 305**	**1 366**	**2 671**	**1 186**	**+1 485**

For six of the eight HS-6 groups the Danish imports (column 1, included procedure 42000) are clearly greater than the Norwegian imports. There are many reasons for this. What makes the understanding of this complicated is a 'both way effect' in the Norwegian country code registrations.

Many of the Norwegian exporters declare correctly the final country of destination, but Danish companies/traders or transporters are involved in temorary imports into Denmark under VAT-exempted procedure 42000, or longer temporary storage under other procedures, before re-exporting the goods.

Opposite; many Norwegian exporters declare incorrectly DK as the final destination country even if they know that this is not the case. However, they do so because the fish will partly end in Danish fish processing or will be rearranged and transshipped to another EU country. To a certain degree they in fact will not know the final destination when the fish products leave Norway.

The comparison shows that the Danish statistics including the 42000 procedure, only tell the significant role Denmark has as a trading and transit country for Norwegian fish products.

For two of eight HS-6 groups, 030240 - frozen herring and 030360 - frozen cod, the Danish imports are for all procedures lower than the Norwegian exports. This could indicate missing Danish import declarations or it could be that the Norwegian exporters declare Denmark as the country of destination, even if the fish products go directly to other EU countries (only passing through Denmark).

Company investigations

The Norwegian export data on each of these 8 groups have been investigated further. The exporters have been contacted about the discrepancy question in order to give their opinion about the reasons, but without questioning the content of single declarations.

030212 - fresh salmon -25 815 DK 69 202 NO 43 387 DK 35 682 +7 705

Table E9 below shows the trade for all the Norwegian exporters who declared one ore more fish shipment bound for Denmark in 1995. These exporters sold fish to many other markets (coutries) to which Denmark could possibly be a 'transit' country.

Table E9. Total export by Norwegian exporters who declare fish bound for Denmark. 1995

Country	Tonnes	Value mill NOK	No of Items	Average price
Total	**163 807**	**4 831 759**	**43 608**	**29.50**
DK	**43 387**	1 208 686	4 381	27.86
FR	37 853	1 112 359	6 731	29.39
XX	29 501	936 385	16 041	31.74
DE	17 980	525 730	6 150	29.24
ES	13 820	403 946	2 594	29.23
IT	7 473	233 139	3 598	31.20
NL	7 346	218 163	2 069	29.70
BE	6 442	193 182	2 031	29.99
PL	6	168	13	26.38

XX = all others countries.

These Norwegian exporters declared in total 163 thousand tonnes. 43 thousand tonnes or 25 per cent of this was declared with Denmark as the country of destination. The lower price observed for Denmark could indicate that this fish mostly goes to Denmark, also the average weight of each shipment seems to be higher.

The investigation indicates that some of the big Norwegian salmon exporters declare all their fish to Denmark for temporary storage or reloading and then partly distribute it to many other EU contries. The NO export declarations have DK as a destination and should therefore match a DK import declaration.

Many companies use Denmark as a first temporary stop as a 'gate' into EU, where also the veterinary control may take place and where shipment is rearranged.

On the other hand, there has to be many NO export declarations with destination other than DK behind the Danish import statistics. This has not yet been investigated and proved. When a Norwegian exporter sends a truck through Denmark, to another EU country, this delivery might be declared as DK import under the use of procedure 42000, even if the Norwegian export declaration shows the final country of destination.

In conclusion, the Danish imports, included procedure 42000 as the Comext data shows, are likely to be highly overestimated, and the Danish national imports excluding procedure 42000 seem to be the most reliable figures.

030420 - frozen filets	**-4 506**	**DK 8 938**	**NO 4 432**	**DK 2 751**	**+1 681**
030262 - fresh haddock	**-3 349**	**DK 7 231**	**NO 3 882**	**DK 2 266**	**+1 616**
030250 - fresh cod	**-1 027**	**DK 7 522**	**NO 6 495**	**DK 4 639**	**+1 856**

For all these three products the situation seems much the same as for fresh salmon. Danish companies or Norwegian daughter companies in Denmark are engaged in transshipment to other EU countries. Clearly, there is extensive use of the procedure 42000 in Denmark, which 'blows up' the Danish import figures.

030551 - dried/salted cod	**-10 150**	**DK 13 031**	**NO 2 881**	**DK 2 874**	**+7**

Most of the dried/salted cod declared into Denmark is bound for Portugal. The Norwegian exports are temporarily stored before the goods are sent further on the way to the final destination. Of 10 150 tonnes imported into Denmark, 7 276 tonnes are under procedure 42000. When excluding procedure 42000, Norwegian exports and Danish imports match.

030562 - salted cod **-6 620** **DK 7 337** **NO 717** **DK 578** **+139**
Much of the salted cod into Denmark is for further processing to dried and salted fish. Many Norwegian exporters sell to DK for processing and the DK imports are probably not under procedure 42000. The frequent use of procedure 42000 should indicate that many Norwegian exporters declare for other countries, but send the fish in transit through Denmark. The statistical information gives no significant indication that Norwegian exports are mismatched by imports into Denmark as cod with a Russian origination.

For both cod products, the Danish use of procedure 42000 completely disturbs the Danish import statistics looking at country of final destination or consumption, again proving Denmark as a major transit country.

030240 - fresh herring **+4 399** **DK 55 037** **NO 59 435** **DK 52 595** **+6 840**
Most of the Norwegian herring is direct landings from Norwegian vessels in Danish harbours. It is declared by ordinary Norwegian export declarations as direct landings. One reason for the Norwegian exports exceeding the Danish imports, could be the many buyers from the Netherlands participating in the fish auctions issuing declarations with the Netherlands as the importing country.

030360 - frozen cod **+1 305** **DK 1 366** **NO 2 671** **DK 1 186** **+1 485**
There are no good reasons found why the reported Danish imports are so low compared with the Norwegian exports. Even included Danish procedure 42000, 50 per cent is missing. However, the total quantities measured in both countries are low compared with other fish products.

Mirror exercise in Norway - Nordic countries' trade 1995 with focus on Sweden - Norway trade 1995

Statistics Norway

1. Introduction

At a first glance, the HS2 (two digit commodity group level) data sets provided by EUROSTAT on the trade between Norway and the Nordic partner countries seem to contain a number of HS chapters with significant discrepancies. However, when taking a closer look, it turns out that many of the apparent chapter level discrepancies are caused simply by suppression for reasons of confidentiality.

Some of the more severe discrepancy chapters in our study are among the ones that are also identified in the other Nordic studies. Typical problem chapters in the Norwegian trade flows are 27 (mineral fuels etc.), 39 (plastics), 72 (iron and steel), 84 and 85 (machinery), and 87 (vehicles).

After reallocation of the confidential data from chapter 99, the following chapters were chosen for further investigation on the six-digit commodity level:

- *Chapter 03, fish.* The Swedish import figures are considerably higher than the Norwegian export statistics. However, assuming the discrepancy to be of the same nature as the Norway/Denmark discrepancy, we decided to limit the study of the fish trade to the Norwegian – Danish exercise (see Appendix E, where the main reason is identified, being the fish imports via Denmark under EU procedure code 4200).

- *Chapter 27, mineral oils, electricity etc.* from Norway to Sweden: A major portion of the discrecpancy pertains to electricity, where the figures cannot be reconciled.

- The Swedish imports of crude oil are much lower than the Norwegian exports. [7] The study did not succeed in identifying the reason for the discrepancy, the explanation depending on the statistical treatment and customs' practice in the UK and Sweden.

- *Chapter 87, motor vehicles and parts*, trade in both directions between Sweden and Norway. The actual study was limited to the trade in vehicles from Sweden to Norway, the trade in the opposite direction consisting of parts, where an in-depth comparative analysis would be difficult to establish. Two main reasons for the Swedish export value by far exceeding the Norwegian imports in 1995 were identified: firstly, the imports of cars from a third country via Sweden; secondly a much higher value per car in the Swedish data. However, even when adjusting for the movements of cars via Sweden from other countries, there were fewer cars in the Norwegian import data than in the Swedish exports.

2. Overview and Adjustments for Confidentiality

When transmitting data to EUROSTAT, confidential Norwegian trade is reported as chapter 99. The confidential exports to Iceland amount to about 6 per cent, Sweden and Finland about 9 per cent,

[7] On the other hand, the Danish, Finnish and Icelandic imports of Norwegian crude oil are higher than the Norwegian exports. Traditionally, this has been deemed to be the result of the inclusion of Norwegian crude oil via Teesside. Unstabilized crude oil transported by pipeline from Ekofisk to Teesside is fully included in the Norwegian statistics as exports to the UK, whereas, to our knowledge, the UK import statistics only include the stabilized quantities for refining in the UK, disregarding the shipments from Teesside to other countries.

included in the respective export totals, but not distributed by HS2. The suppression is a major cause for discrepancies on the chapter and the more detailed levels in the COMEXT database. One example is fertilizer: chapter 31 in the Norwegian exports is almost completely suppressed, causing COMEXT mirror discrepancies in the range of -100.0 to -99.4 per cent when compared with the import statistics of Denmark, Iceland, Sweden and Finland.

Where the data are not sensitive on the HS2 level, the tables below show that adding the value of the confidential trade explains most of the COMEXT discrepancy for some of the commodity groups. As an example, we see in table F1 that in chapter 72, iron and steel, the Swedish imports were ECU 31 395 thousand higher than the Norwegian exports. Furthermore, we see that the value of the Norwegian exports concerning this chapter, but included in chapter 99, amount to ECU 25 312 thousand, thus explaining most of the discrepancy.

2.1. Mirror statistics between Norway and Sweden

On an individual declaration level the Swedish import value should be equal to or exceed the Norwegian export value. But on aggregate levels other occurrences may influence the bilateral figures, e.g. Norwegian country-of-origin goods reaching Sweden via another country of consignment. Without any precise limit as to what might be considered a normal discrepancy, for instance between Norwegian exports to Sweden compared with Swedish imports from Norway, table F1 ranks the discrepancies on HS2 chapter according to absolute value. Table F2 ranks the discrepancies of Norway's imports from Sweden.

Norwegian exports coded to chapter 99 to Sweden due to confidentiality amount to ECU 275 813 thousand , 8.8 per cent of the total Norwegian exports to Sweden. The amount that pertains to the chapter, but is confidential on a more detailed level only, is given in thousand ECU in the fourth column of table F1.

Table F1. Mirror discrepancies between Norwegian exports to Sweden and Swedish imports from Norway in value and percentage. 1995

Chapters	Discrepancy value* COMEXT 1.000 ECU	Discrepancy in per cent **	Confidential Included in COMEXT chapter 99. 1.000 ECU
27 Mineral fuels etc.	114 179	12.5	258
39 Plastics	-109 929	-54.8	78 394
03 Fish	-79 642	-47.9	
72 Iron and steel	-31 395	-29.4	25 312
84 Machinery for energy production	-31 116	-16.6	3 972
48 Paper and paperboard	-31 203	-34.5	15 133
47 Pulp of wood	-25 611	-39.8	26 140
87 Vehicles	-22 456	14.9	
76 Aluminium	-20 407	-12.2	
29 Organic chemicals	-19 168	-62.2	17 841
68 Articles of stone etc.	-17 827	-71.2	16 877
73 Articles of iron or steel	-14 116	-17.7	14 277
85 Electrical machinery	12 071	5.3	1 422
32 Tanning or dyeing extracts	-11 751	-39.4	8 483
28 Inorganic chemicals	-10 099	-42.4	14 337
81 Base metals not specified in other chapters	-8 337	-80.9	3 235
Total exports	-38 117	-1.2	

* Norwegian exports - Swedish imports.

** (Norwegian exports-Swedish imports)/Swedish imports.

The Norwegian imports from Sweden coded to chapter 99 due to confidentiality amount to ECU 47 321 thousand or 1.2 per cent of the total Norwegian imports from Sweden. The amount that pertains to the chapter is given in thousand ECU with Sweden as country of origin (CoO) as well as Sweden as country of dispatch (CoD) in the fourth column of table F2.

Table F2. Mirror discrepancies between Norwegian imports from Sweden and Swedish exports to Norway in value and percentage. 1995

Chapters	Discrepancy value* COMEXT 1.000 ECU	Discrepancy in per cent**	Confidential Included in COMEXT chapter 99 1 000 ECU
85 Electrical machinery	- 145 601	- 33.1	370 CoO, 194 CoD
87 Vehicles	- 89 901	- 25.3	
84 Machinery for energy production	- 51 759	- 9.3	Normal
90 Instruments (optical, precision, medical, etc.)	- 50 945	- 49.1	
62 Apparel and clothing, not knitted	- 32 817	- 67.4	
37 Photographic or cinematographic goods	- 31 196	- 91.1	
30 Pharmaceutical products	- 29 314	- 21.2	
27 Mineral fuels etc.	- 25 318	- 17.1	6 487 CoO, 6 482 CoD Normal
61 Apparel and clothing, knitted	- 24 084	- 69.6	
94 Furniture	- 23 353	- 10.0	Normal
33 Essential oils, cosmetic or toilet preparations	- 21 372	- 57.3	
Total imports	- 495 121	- 11.4	

* Norwegian imports - Swedish exports.

** (Norwegian imports-Swedish exports)/Swedish exports.

In table F3 we look at the value discrepancies of tables F1 and 2, by chapter, for both trade directions between Norway and Sweden, and add some comments on the same chapter in our trade with the other Nordic countries. The chapters where table 1 indicates that most of the apparent discrepancy is caused by confidentiality, are omitted. The chapters showing what may be "normal" imports (cif imports > fob exports) value in table F2 are also omitted. Adjustments are made for the confidentiality suppression. For the imports, the CoO adjustment was applied; however, not affecting any of the imports groups in table F3. *Italics indicate the adjusted figures.*

Table F3. Mirror statistics between Norway and Sweden. Value discrepancy by chapter

Chapters	Exports to Sweden Discrepancy value* 1000 ECU (Rank, adjusted)	Imports from Sweden Discrepancy value** 1000 ECU (Rank, as in table 2)	Comments
03 Fish	- 79 642 (2)		Exports to Denmark much lower than Danish imports.
27 Mineral fuels etc.	*114 437* (1)		Exports to Denmark, Finland and Iceland lower than Danish, Finnish and Icelandic imports.
30 Organic chemicals		- 29 314 (7)	
33 Essential oils, cosmetic and toilet preparations		- 21 372 (11)	
37 Photographic or cinematographic goods		- 31 196 (6)	
39 Plastics	- *31 535* (3)		
48 Paper and paperboard	- *16 070* (7)		
61 Apparel and clothing, knitted		- 24 084 (9)	
62 Apparel and clothing, not knitted		- 32 817 (5)	
72 Iron and steel	- *6 083* (9)		Exports to Finland lower than Finnish imports. Imports from Finland much higher than Finnish exports.
76 Aluminium	- 20 407 (6)		
84 Machinery for energy production	- *27 144* (4)		
85 Electrical machinery	*13 493* (8)	- 145 231 (1)	
87 Vehicles	- 22 456 (5)	- 89 901 (2)	Imports from Finland lower than Finnish exports.
90 Instruments (optical, precision, medical, etc.)		- 50 945 (4)	

* Norwegian exports - Swedish imports.

** Norwegian imports - Swedish exports.

2.2. Mirror statistics between Norway and Finland

The biggest discrepancy in the Norwegian exports vs. Finnish imports can be found in chapter 39. Adjusted for Norwegian confidentiality suppression, the biggest discrepancy is in chapter 27. This may, however, be caused by Finnish imports of stabilized crude oil from Teesside. Originating from the Norwegian Continental Shelf.

Norwegian exports coded to chapter 99 to Finland due to confidentiality amount to ECU 76 786 thousand, 8.8 per cent of the total Norwegian exports to Finland.

Table F4. Mirror discrepancies between Norwegian exports to Finland and Finnish imports from Norway in value and percentage. 1995

Chapters	Discrepancy value* COMEXT 1 000 ECU	Discrepancy in percentage**	Confidential Included in COMEXT chapter 99. 1 000 ECU
39 Plastics	- 29 769	- 66.9	32 131
27 Mineral fuels etc.	- 26 242	- 6.7	0
28 Inorganic chemicals	- 22 194	- 91.4	6 686
72 Iron and steel	- 9 115	- 16.7	3 271
Total exports	- 22 588	- 2.5	

* Norwegian exports - Finnish imports

** (Norwegian exports-Finnish imports)/Finnish imports

Table F5. Mirror discrepancies between Norwegian imports from Finland and Finnish exports to Norway in value and percentage. 1995

Chapters	Discrepancy value* COMEXT 1000 ECU	Discrepancy in percentage**	Confidential Included in COMEXT chapter 99. 1 000 ECU
72 Iron and steel	25 604	73.4	
87 Vehicles	- 9 250	- 11.2	
Total imports	115 118	13.2	

* Norwegian imports - Finnish exports.

** (Norwegian imports-Finnish exports)/Finnish exports.

2.3. Mirror statistics between Norway and Iceland

Norwegian exports coded to chapter 99 to Iceland due to confidentiality amount to ECU 7 523 thousand or 5.9 per cent of the total Norwegian exports to Iceland.

Table F6. Mirror discrepancies between Norwegian exports to Iceland and Icelandic imports from Norway in value and percentage. 1995

Chapters	Discrepancy value* COMEXT 1 000 ECU	Discrepancy in percentage**	Confidential Included in COMEXT chapter 99. 1 000 ECU
27 Mineral fuels etc.	- 5 615	- 8.9	0
48 Paper and paperboard	- 4 758	- 53.8	2 773
39 Plastics	- 3 594	- 61.3	2 333
Total exports	- 9 133	- 6.7	

* Norwegian exports - Icelandic imports.

** (Norwegian exports-Icelandic imports)/Icelandic imports.

The Norwegian imports from Iceland are, considered as a whole, consistent with the Icelandic export figures, dominated by fish and ships. There are, however, some interesting discrepancies, inasmuch as Norway's import values of goods from Iceland in chapter 03 and 89 goods from Iceland, are considerably higher than the Icelandic figures. On the other hand, Norway's imports in chapters 84 and 72 are lower than the Icelandic exports.

3. Norway/Sweden - Mirror Discrepancies in Chapters 27 and 87

3.1. Norwegian exports/Swedish imports in chapter 27

The major reason for the discrepancy in the 'energy' chapter 27, is Sweden's complete suppression of all figures on electric current. In the COMEXT data, the Norwegian exports in chapter 27, are ECU 114 179 thousand (or 12.2 per cent) higher than the Swedish imports. When subtracting the Norwegian exports of electric current in the amount of ECU 128 655 thousand, the Swedish imports are on the contrary slightly higher (1.6 per cent) than the Norwegian exports. *Within* the chapter, there are other discrepancies, resulting from shipments of crude oil produced on the Norwegian Continental Shelf and suppression of Swedish imports of refined oil products.

- Shipments of stabilized crude oil to Sweden via UK: Unstabilized crude oil extracted from the Norwegian Continental Shelf is transported by pipeline to a plant inTeesside, UK. In the plant it is separated into stabilized crude oil and NGL (ethane, propane, butanes). In 1995, Norwegian stabilized crude oil in the amount of NOK 300 million, or about ECU 36 200 thousand, was shipped to Sweden fromTeesside. Traditionally, this could have explained most of the COMEXT discrepancy on commodity 2709.00, amounting to ECU 42 866 thousand on Swedish imports in excess of Norwegian exports. However, according to the Swedish Customs Board, these movements are now included in the intra-trade as arrivals from UK, not as third-country imports from Norway, leaving the discrepancy for 1995 unexplained.

- The Swedish imports on 2710.00 (gasolines, etc) are ECU 37 022 thousand lower than the Norwegian exports. This is mainly due to Swedish suppression of imports on certain commodity numbers within this HS6 group.

3.2. Norwegian imports/Swedish exports in chapter 27

The Norwegian imports in chapter 27 are ECU 25 317 thousand or 17.1 per cent higher than the Swedish exports. With Sweden suppressing its exports of electricity, subtracting the Norwegian imports of electric current in the amount of ECU 19 230 thousand, reduces the discrepancy to a reasonable 4 per cent. There remain, however, underlying discrepancies on petroleum residues, propane and butanes:

- The Norwegian imports on 2713.90 (petroleum residues) amount to ECU 2 744 thousand, with no exports from Sweden. The national Norwegian figure on imports on 2713.90 with Sweden as country of consignment is even slightly higher, at ECU 3 000 thousand.

- The Norwegian imports of propane and butanes (2711.12 and .13) by country are confidential, causing a discrepancy at the six-digit level.

3.3. Road vehicles and parts - Norwegian imports/Swedish exports

In Chapter 87, the Swedish exports to Norway are almost ECU 90 000 thousand higher than the Norwegian imports, a discrepancy of 25.3 per cent. Faced with this substantial amount, we have - when studying our detailed trade data with Sweden on the underlying commodity groups - looked at the figures for the years 1994 and 1996 as well as 1995. But neither does Sweden's joining the EU in 1994 seem to have changed the trade pattern: the indirect imports of vehicles and parts via Sweden from third countries are of the same magnitude. Nor do we see any obvious impact of a quite substantial change in the Norwegian Customs warehousing regime, that came into force during 1995-96.

- The Norwegian imports of Swedish (country-of-origin), *medium-sized motor cars, (8703.23)* amount to ECU 44 149 thousand. The Swedish exports amount to ECU 143 005 thousand, exceeding the Norwegian imports by ECU 98 856 thousand or 69.1 per cent. A breakdown of the

national Norwegian import figures with Sweden as country of consignment - quantity and value, and the corresponding national Swedish figures - indicates that twice as many vehicles are recorded as Swedish exports to Norway. Moreover, the mean value of each car in the Swedish exports is about 35 per cent higher than the mean value in the Norwegian imports.

- A closer, bilateral inspection of the figures revealed one set of vehicles that were rightfully included in the Swedish export figures to Norway, but not in the Norwegian imports from Sweden, neither by country of origin nor by country of consignment. At the outset, the shipments were intra-enterprise movements of cars produced in the Netherlands, recorded as Intrastat arrivals from the Netherlands, and later on in the Swedish extra-trade as exports to Norway. Lastly, the vehicles were recorded in Norway as imports from the Netherlands as country of origin as well as consignment. This explains about 15 per cent of the discrepancy in number of vehicles. See table F7 below.

Table F7. Road vehicles - Norwegian imports and Swedish exports 1995

HS2 group	Norwegian imports		Swedish exports		Discrepancy (imports - exports):	Average price per vehicle	Average price per vehicle
	Pcs	1.000 NOK	Pcs	1.000 SEK	Pcs	1.000 SEK	1.000 NOK
8703.23	4 848	365 917	9 862	1 328 480	- 5 014	135	75
8704.22	1 189	536 512	583	252 497	606	433	451
8704.23	813	460 250	*	*		*	566
Memo 1: Norwegian imports from the Netherlands 8703.23	739	47 944					65
Memo 2: Consolidated Norwegian imports from Sweden and the Netherlands 8703.23	5 587	413 861	9 862	1 328 480	- 4 275	135	74

Note: Norwegian imports from Sweden as partner country of consignment.
Note: Norwegian imports from the Netherlands as country of origin and consignment
Memo: Rates of exchange 1995: SEK/NOK 88,9477; ECU/NOK 8,2847
Sources: Swedish Board of Customs.
* Confidential.

The reason for the remaining discrepancy in number of cars and mean value is still not found. The custom authorities are presently looking into the discrepancy, on the basis of the results of the mirror exercise.

The import of automobiles into Norway has evolved into an intra-enterprise trade, potentially influencing the customs' and statistical valuation. According to findings published in September 1997, the Norwegian Directorate of Customs and Excise has overruled the valuation of substantial imports of cars from Germany over a period of several years. Low invoiced amounts were deemed to be the result of an intra-enterprise agreement, under which the Norwegian importing daughter company instead assumed the manufacturing parent's guarantee responsibilities.

- On the other hand, the national Swedish figures on exports of *medium-sized vehicles for the transport of goods (8704.22)* report only 580 vehicles having been exported to Norway, whereas the Norwegian figures show 1 190 vehicles with Sweden as country of consignment, with a mean

value 15 per cent higher than the Swedish exports. The Swedish exports of *large motor vehicles for the transport of goods (8704.23)* are confidential. However, seen in context, and considering both open and suppressed data, it seems that different classifications within 87.04 may explain much of the discrepancy on the detailed level.

- The substancial discrepancy on "other parts" (8708.99) - where the Swedish exports exceed the Norwegian imports of Swedish origin by ECU 28 028 thousand - is explained by the fact that there is a significant Swedish export to Norway of parts from other countries. The Norwegian imports of Spanish and Portugese country-of-origin parts via Sweden even exceed our direct imports from those countries. The Norwegian imports on 8708.99 of third country merchandise with Sweden as country of consignment amount to ECU 25 000 thousand, explaining most of the Eurostat discrepancy between Sweden and Norway for this commodity group.

3.3. Conclusion

For many commodity chapters on the HS2 level initial discrepancies can be substantially reduced or wholly alleviated, especially for exports, when reallocating figures that must be suppressed at more detailed levels, cf. chapter 2, tables F1 and F2 on the trade between Sweden and Norway.

The COMEXT data on the trade between Sweden and Norway show imports by country of origin and exports by country of destination. It was therefore a logical step to study the Norwegian national statistics on imports from Sweden as country of consignment. This lead to a partial reduction of the apparent discrepancy in chapter 87.

More explanations were found as a result of an exchange of detailed, national statistics with Sweden. There were also revealed general as well as specific statistical problems concerning the movements of motor vehicles, that will need further investigation .

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