



---

**ECONOMIC COMMISSION FOR  
EUROPE and  
CONFERENCE OF EUROPEAN  
STATISTICIANS**

**EUROPEAN FREE TRADE ASSOCIATION  
STATE STATISTICAL COMMITTEE OF  
UKRAINE**

**Joint EFTA/UNECE/SSCU Seminar “Economic Globalisation: A Challenge For Official Statistics”**

Kiev, 3-6 July 2007  
Session 3 of the provisional agenda

**MIRROR AND RECONCILIATION EXERCISES FOR EXTERNAL TRADE STATISTICS  
BETWEEN NORWAY AND UKRAINE**

**Prepared by Statistics Norway (SSB), State Statistics Committee of Ukraine (SSCU)  
and State Customs Authority of Ukraine<sup>1</sup>**

**ABSTRACT**

1. This working paper presents the results of a joint mirror study between the State Statistics Committee of the Ukraine (SSCU), Statistics Norway (SSB) and the State Customs Authorities of the Ukraine. By using mirror statistics exercises one can reveal differences in the metadata of the datasets that are compared and errors within the trade statistics. The results can give an indication of the quality of the trade statistics. We focused mainly on the years 2005 and 2006 and used trade data from UN Comtrade database together with national statistics both provided by the SSCU and the SSB.

2. The most extraordinary result was for the case of Norwegian export of fish to the Ukraine,

---

<sup>1</sup>Christine Kleppe and Leif Korbøl from Statistics Norway (SSB), Anatoly O.Frizorenko, Larysa M.Matronich and Olga V.Dyachenko from State Statistics Committee of Ukraine (SSCU), Natalia M.Antonova and Dmytro S.Miroshnichenko from State Customs Authority of Ukraine.

especially frozen herring. From the years 2001 to 2005, there were relatively small differences between Ukrainian import and Norwegian export in terms of quantity, while in value the Ukrainian import made up only about half of the Norwegian reported export value. This could indicate misreporting of import value. In 2006 the results were improved for the asymmetries within value. This could be explained by increasing border control on the Ukrainian border, especially for so-called risk commodities, fish being one of these.

3. Trade via third countries was considered being an important explanation for a large part of the asymmetries present in the datasets. This implies either unknown final destination country by the exporter or unknown country of origin by the importer. This was especially the case for snow skis and textiles imported to Norway from the Ukraine. The Norwegian export was also subject to a great deal of confidentiality, which also naturally affects the asymmetries present.

4. From May 2007 the customs in Norway and in Ukraine also have an agreement to exchange detailed data on specific conspicuous cases, something that also can improve the quality of the trade statistics. Concerning trade via third countries, this is a more difficult factor affecting the mirror statistics. Intermediate stops in third countries for some processing of commodities seem to reduce the chance for the exporter or importer to get correct knowledge of either the final destination or the correct country of origin. As globalisation increases, asymmetries due to trade via third countries may increase due to more intermediate stops and processing in other than the exporting or importing country.

## **I. BACKGROUND**

5. This paper presents the main results from a joint mirror study between the statistical authorities of the Ukraine and Norway. The starting point of this cooperation was a mirror exercise performed by Anne Berit Dahle (2006) for trade statistics for the year 2002 for the TACIS seminar in Luxembourg in March 2006. This created the initial part of the possible cooperation of a mirror study between the Ukraine and Norway. The main conclusion from this exercise was the conspicuous asymmetry in the trade in fish between Norway and the Ukraine for 2002. The discrepancy between Norwegian export of fish to Ukraine, and the equivalent import of the Ukraine was considerable. While measured in value the Norwegian export exceeded the Ukrainian import, the opposite was the case when measured in quantity. Due to this and other discrepancies found for certain commodities, the need for a follow up examination of this field was proposed as a final comment.

6. The advantage of cooperation between statistical authorities is the possibility of sharing information and resources and the opportunity of direct communication. This may create greater opportunities for revealing errors both within the national datasets and within the separate systems of managing the data. By regarding this, it is easier to predict the cause of discrepancies also outside the statistical system. A joint study between statistical and custom authorities in both trading countries might be more thorough than a mirror exercise performed by an exterior country, an international organization or only one of the trading countries. This method might also be timesaving since information will be more easily accessible to all parties involved.

7. Two working meetings have been held, the first took place in Kiev (25-26 January, 2007) and the second in Oslo (19-20 April, 2007). Aide memoirs from both these meetings can be

found in the appendix. In addition to the State Statistics Committee of Ukraine (SSCU) and Statistics Norway (SSB), the Customs Authority of Ukraine and the Norwegian Customs and Excise (NCE) have been involved in working meetings and discussions. With these authorities involved, the results from this exercise reaches also the practical sides of the problems concerning discrepancies within mirror statistics and invites to further and more detailed studies in the future.

8. At the first working meeting in Kiev a draft of the final report was presented with the preliminary results from the mirror exercise. This was based upon initial findings from UN Comtrade and focused on data from 2004 and 2005. During this working meeting the trade of several commodities between Norway and Ukraine was discussed, together with the asymmetries present and potential explanations for these. Fish was an especially interesting commodity, since this is the largest trade commodity between Norway and Ukraine. Data for 2005 and previous years showed remarkably results, indicating that the value of Norwegian fish was severely reduced from the point of Norwegian export to the actual import in Ukraine. Before the second working meeting preliminary data for 2006 were exchanged and reviewed upon. During this meeting these sets of data were compared and investigated further. Additionally some selected commodities were looked closer upon. One of the main reasons for discrepancies agreed upon in Kiev was trade via a third country. Due to this, extensive datasets over country of consignments for both Norway and Ukraine were prepared before our last working meeting in Oslo in April. These datasets were here discussed, together with the figures for imports and exports in 2006.

9. This report was finalized in May 2006 after our last working meeting and is based upon these meetings, the discussions and the datasets available for the time period of investigation. Note that especially Norwegian export is subject to extensive confidentiality in the dataset. Where relevant this is mentioned, but still these suppressed figures can not be published.

### **Mirror statistics**

10. By performing a mirror statistics exercise on a country's registered trade and its trade partner's equivalent trade flows one can compare datasets that are reflecting the same economic relations. While the Ukrainian export to Norway should equal the Norwegian import from the Ukraine, as also for the opposite flows, this is rarely the case. Asymmetries are close to always present, and examining these can give us some indication of the management and quality of the trade statistics in the trading countries, and can potentially reveal significant discrepancies caused by errors in one or both of the datasets.

11. Differences in such equivalent datasets may result in confusion for the users of the trade statistics and the figures may appear as unreliable and inconsistent. Through a mirror statistics exercise, these problems are detected and possible adjustment methods for harmonization between the datasets are presented. Even though discrepancies might also occur after examination and adjustments, these differences will hopefully be perceived as more understandable and accounted for in the use of the trade statistics. The information such exercises present are therefore both useful and necessary within work relating to the quality of international trade statistics.

12. There are several possible reasons for discrepancies. The most common ones are here

shortly mentioned. The valuation of exports versus imports often causes asymmetries due to a FOB valuation of exports and a CIF valuation of imports. This results in a slightly higher import value than export value. Trade via third countries is one of the main explanatory reasons for discrepancies within mirror statistics. The asymmetries arise when a commodity is sent through a third country before ending up in the final destination country. Typically the exporter sends its commodity to a third country and do not know the actual final destination of its product, hence will report the third country as its destination. The same can happen to the importer, through the lack of information of the country of origin, hence reporting the country of consignment as country of origin. Other reasons can be threshold levels of reporting imports and exports, different exchange rates used when converting the values into a common currency and suppression of confidential data. In addition differences in data management such as compilation, classification, editing and revision, together with the trade system used in the comparing countries and time lag in reporting the trade flow, might create discrepancies in the datasets. Finally, errors, both deliberate and unintentional, can create asymmetries between the export and import registered. Some of these reasons may be explained in a straightforward way and can easily be adjusted or accounted for in a mirror statistics exercise between two trading countries. This is such as different treatments of the incoming data, threshold levels for reporting, estimation methods and classification of products. Other discrepancies may also be explainable to a certain degree, but harder to prevent, such as confidentiality in the partner country's trade statistics. Deliberate and unintentional errors in the datasets can be more difficult to both discover and adjust for.

## **Data**

13. The main source for our data is the UN Comtrade database. The choice of this source is based on easy access in addition to the already transformed trading values into a common currency. This simplifies the exercises and makes the figures more easily comparable.

14. Both Ukraine and Norway compile their statistics in accordance with the guidelines of the United Nations Statistics Division publication "International Merchandise Trade Statistics: Concepts and Definitions, IMTS" (1998) (Series M, No 52, Rev.2). The Ukrainian data in the UN Comtrade is based on the Harmonized System (HS) version of 1996, while the data contributed by Norway is the equivalent HS 2002. These different classifications seem not to create problems for the comparisons.

15. Both Norwegian and Ukrainian figures on import are reported according to country of origin, and at a CIF value. Exports are reported with the last known country of destination and at a FOB value. Since the CIF import value includes the transfer costs up to the entry into the country, this value is usually somewhat higher than the FOB export value. The Ukrainian data were reported to the UN in USD, so there was no need for any further conversion. As for the Norwegian import and export figures, these were reported in NOK, and the currency conversion factor in 2005 for the import and export values is 0.155103 and 0.155108 respectively. In 2006 this was 0.156078 both for imports and exports.

16. In addition to data from the UN Comtrade we also have made use of national statistics. In the case of Norway the source is StatBank Norway, which is the statistic database of Statistics Norway. The figures presented here are equal to those reported to the UN, but have a longer time

range. In addition, more specific and detailed data are available. Ukrainian detailed data, on for instance country of consignment, was retrieved directly from the SSCU.

17. Concerning comparison of data, both countries make use of the Harmonized system up to a HS 6 digit level. On an 8-digit level however, Ukraine and Norway have different systems of classification. This can create errors when comparing trade of certain commodities on such a detailed level, and will require additional information about the commodity codes. Norway does not have an English nomenclature on the commodities' labels beyond a six-digit level. These would require translation for so to be comparable to the Ukrainian 8-digit nomenclature. Due to these difficulties the study did not go beyond comparison on a HS 6 digit level.

18. The UN Comtrade presents data on a HS6 digit level as a basis. As already mentioned, in Norway several commodities are subject to confidentiality, something that naturally affects the trade data. However, on a total level, this is not the case in the Norwegian national statistics. But only detailed, already suppressed data is sent to the UN, which implies that the totals the UN operates with is subject to confidentiality even for the commodity groups that is not suppressed on an aggregated level in the national statistics.

## **Results**

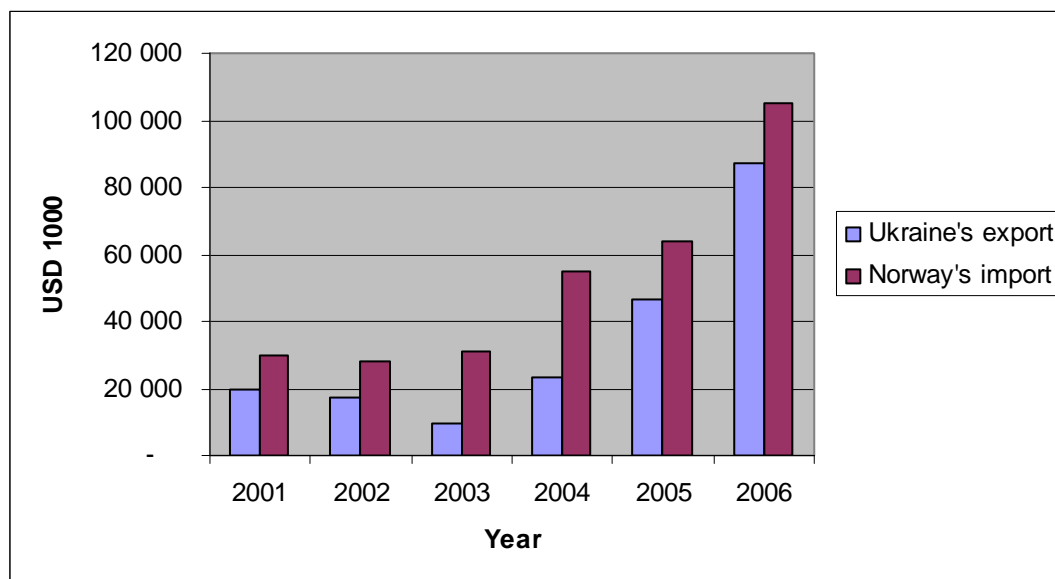
19. In the next section we will present the results from our findings. We will take into consideration the data that has been analyzed, the metadata for both Norway and Ukraine together with the conclusions and outcomes of our working meetings.

20. This part of the report is split, the first part presenting the commodity flow from Ukraine to Norway, and the other the commodity flow from Norway to the Ukraine. The commodities that will be commented are the products with the largest value flows and the largest discrepancies, together with some selected commodities discussed in the working meetings. Norwegian export of fish to Ukraine is mentioned in a separate section.

## **II. TRADE FROM UKRAINE TO NORWAY**

21. In 2006, less than one percent of Ukraine's export is reported with Norway as the last known country of destination, making the Ukrainian export to Norway significantly smaller than its export to its main trading partners. For Norway, imports from the Ukraine constitute only a small part of its total imports, approximately 0.11 percent in 2005 and 0.16 percent in 2006. However, the trend the last years shows a growth in trade between Ukraine and Norway. This can be seen in figure 1 which shows the development between Ukrainian export and Norwegian import from 2001 till 2006, measured in USD thousand.

**Figure 1. Ukraine's export and Norway's import, 2001 – 2006. USD thousand**



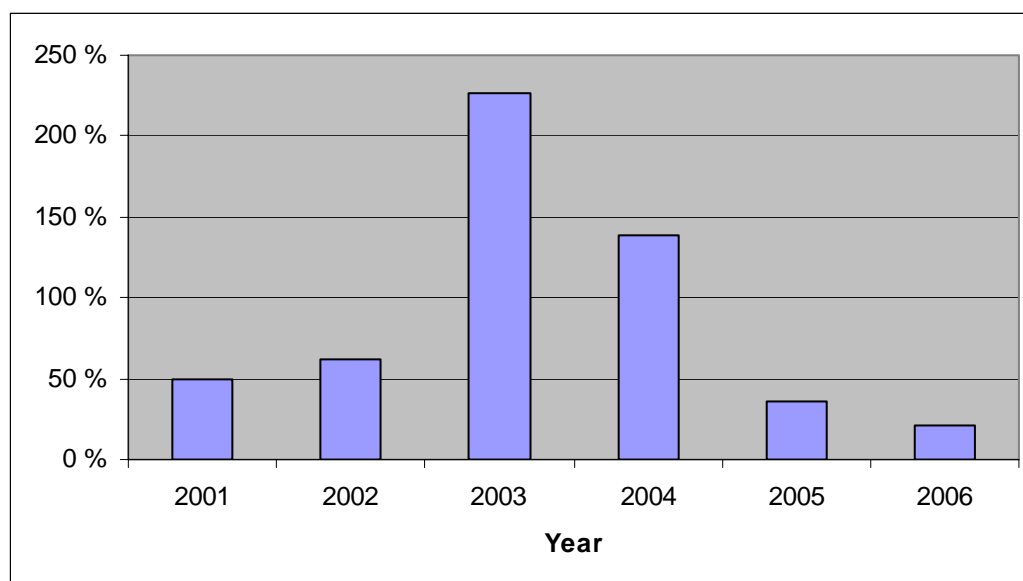
Source: UN Comtrade (14.05.2007)

22. Figure 1 shows a relatively large growth in the trade between Ukraine and Norway from 2001 to 2006, both for the Ukrainian export and the Norwegian import.

23. The trade of commodities from Ukraine to Norway was relatively low in 2003, valued at USD 9 million, close to 84 per cent less than the previous year. However, from 2004 the Ukrainian export started to increase significantly, and the Ukrainian reported export with Norway as destination country close to doubled every year from 2003 to 2006. Ukraine had a registered export to Norway in 2006 of USD 87 million, an increase of approximately 86 percent since 2005. The equivalent results from Norway also reflect this growth in trade of commodities from Ukraine to Norway. From 2005 to 2006 the Norwegian registered import with Ukraine as country of origin increased from USD 64 million to USD 105 million.

24. As seen in figure 1, the Norwegian import exceeds the Ukrainian export all years we have looked at. However, the relative discrepancies are decreasing. This is shown in figure 2.

**Figure 2. The relative difference between Ukraine's export and Norway's import ((Import-Export)/Export \* 100). 2001 – 2006**



Source: Comtrade (14.05.2007)

25. Measured in percentages, the Ukrainian export made up 83 percent of the Norwegian import in 2006, as opposed to 74 percent in 2005 and 42 percent in 2004. As seen from figure 2 the largest relative difference between the Ukrainian export and the Norwegian equivalent import is in 2003. This year Ukraine has a registered export of USD 9 million as opposed to Norway's reported import at USD 31 million. The Norwegian import value, Ukrainian export value and the differences between these can be seen in table 1.

**Table 1. Ukraine's export, Norway's import and the discrepancies. 2001 – 2006. USD thousand**

	<b>Ukraine's export (UA Exp)</b>	<b>Norway's import (NO Imp)</b>	<b>Discrepancy (NO Imp - UA Exp)</b>
2001	19 907	29 844	9 938
2002	17 311	27 936	10 625
2003	9 430	30 807	21 376
2004	23 049	55 093	32 044
2005	46 854	63 785	16 932
2006	87 025	105 236	18 211

Source: UN Comtrade (14.05.2007)

26. Measured in value the largest discrepancy from the period 2001 to 2006 is found in 2004. This year the Norwegian import was USD 55 million, exceeding the Ukrainian export by USD 32 million. While the discrepancy in 2005 amounted to USD 17 million, the equivalent in 2006

was approximately USD 18 million, constituting approximately 21 percent of the Ukrainian export value.

27. We will now look into more detailed data, and focus on the different commodities exported from the Ukraine to Norway together with examining any discrepancies present within these datasets. The starting point is statistics for the HS two-digit level, and we will concentrate on the main commodities traded and the commodities with exceptionally high discrepancies.

### Commodities from Ukraine to Norway

28. The Ukrainian domestic production is mainly within the fields of heavy industry. Of the total Ukrainian export to the world in 2006 about 34 % fell under the commodity group of iron and steel (HS 72), this being the largest export article of the Ukraine to the world. This also constitutes the main commodity exported from the Ukraine to Norway. In 2005 this commodity made up 62 percent of the total commodities exported to Norway from the Ukraine, while in 2006 this had decreased to 46 percent. The group of iron and steel (HS 72) together with the other main exported commodities from Ukraine to Norway in 2005 and 2006 can be seen in table 2 and in table 3 respectively.

**Table 2. Main commodities exported from the Ukraine to Norway, Norway's equivalent imports and discrepancies. 2005. USD thousand**

HS2	Commodity group	Ukraine's Export (UA Exp)	Norway's Import (NO Imp)	Discrepancy (NO Imp – UA Exp)
	Total	46 854	63 785	16 932
72	Iron and steel	29 167	14 394	-14 774
28	Inorganic chemicals precious metal compound, isotopes	4 730	13 656	8 926
89	Ships, boats and other floating structures	9 501	9 528	27
86	Railway tramway locomotives rolling stock equipment	1 416	1 707	290
44	Wood and articles of wood; wood charcoal	1 004	2 234	1 230

Source: UN Comtrade (09.11.2006)



**Table 3. Main commodities exported from the Ukraine to Norway, Norway's equivalent imports and discrepancies. 2006. USD thousand**

HS 2	Commodity group	Ukraine's Export (UA Exp)	Norway's Import (NO Imp)	Discrepancy (NO Imp – UA Exp)
	Total	87 025	105 236	18 211
72	Iron and steel	39 593	6 021	-33 572
28	Inorganic chemicals precious metal compound, isotopes	26 376	55 052	28 676
89	Ships, boats and other floating structures	15 483	10 193	-5 290
86	Railway tramway locomotives rolling stock equipment	1 804	2 132	329
44	Wood and articles of wood; wood charcoal	1 732	2 499	767

Source: UN Comtrade (14.05.2007)

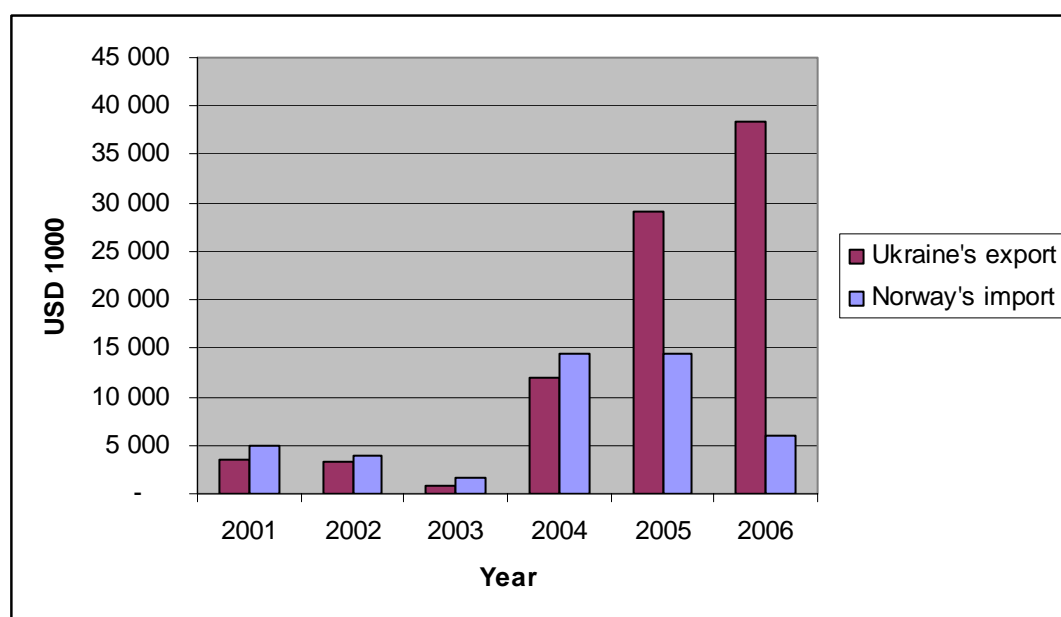
29. A selection of the commodities traded between Norway and the Ukraine will be reviewed in the following sections.

### **Iron and steel (HS 72)**

30. As for the largest traded Ukrainian product; iron and steel (HS 72), the Ukraine reported in 2005 an export at a value more than twice as much as the Norwegian reported import. As seen from table 2 this is the only one of the commodities presented that is subject to a negative discrepancy in 2005, meaning where the Ukrainian export is exceeding the Norwegian import. While the Ukrainian export of this commodity group increased with 36 percent from 2005 till 2006 and amounting to almost USD 40 million in 2006, the Norwegian recorded import decreased. In 2005 the Norwegian import was valued at USD 14 millions and in 2006 this was reduced to USD 6 million. This increased the gap between the Ukrainian recorded export and the equivalent Norwegian reported import.

31. Another way to study the discrepancies is to see these in terms of quantity as opposed to value. In quantity the difference within commodity group 72 is even larger. Close to all of the imported goods in Norway under HS 72 fall under flat-rolled products of iron or non-alloy steel (HS 7208). The Norwegian import of this product group made up close to 50 percent of the Ukrainian export value in 2005 while the equivalent for quantity is 36 percent. In 2006 the equivalents were 16 percent when looking at value and 11 percent for quantity. This indicates increasing asymmetries for this commodity group. Figure 3 shows the Ukrainian export and the Norwegian import of flat-rolled products of iron or non-alloy steel (HS 7208) for 2001 – 2006, measured in value.

**Figure 3. Ukraine's export and Norway's import of flat-rolled products of iron or non-alloy steel (HS 7208). 2001 - 2006. USD thousand**



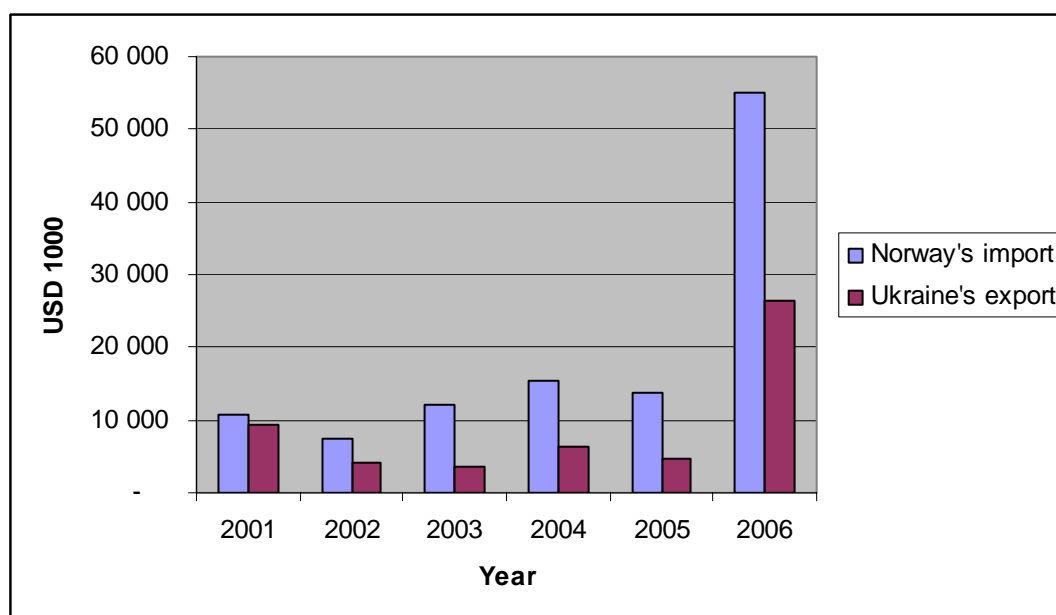
Source: UN Comtrade (14.05.2007)

32. As seen from figure 3 the Norwegian registered import value is significantly less than the Ukrainian recorded export value in 2005 and in 2006. This is the opposite case for the other years presented. One reason for the relatively large discrepancy the two last years could be increasing trade via third countries. When looking at Norwegian detailed data we see that 85 percent of all imports of commodity group 7208 is registered with Belarus as country of consignments while 15 percent is reported with Switzerland as the third country. Since the Ukrainian reported export is so much higher than the equivalent Norwegian import, there could be a possibility that Norway has wrongfully stated countries like Belarus or Switzerland instead of the Ukraine as the country of origin. This may be due to the use of these countries as intermediate trade stops on the trade route to Norway.

### **Inorganic chemicals (HS 28)**

33. In 2006 Norway imported commodities within the group of inorganic chemicals for approximately USD 55 million, about four times as much as in 2005. The registered Ukrainian export also increased significantly from just below USD 5 million in 2005 to USD 26 million in 2006. This development can be seen in figure 4.

**Figure 4. Ukraine's export and Norway's import of inorganic chemicals precious metal compound isotopes (HS 28). 2001 - 2006. USD thousand**



Source: UN Comtrade (14.05.2007)

34. This increase is mainly a result of an increase within anhydrous ammonia (HS 281410), which in 2006 made up more than 99 percent of total Norwegian import of inorganic chemicals from the Ukraine. As seen from figure 4, the Norwegian import exceeded the Ukrainian export all years. In 2005 the Ukrainian export made up 28 percent of the Norwegian import, this improved to 47 percent in 2006. A possible reason for this discrepancy can be trade via third countries and for instance unknown country of final destination at the time of the export. For this commodity group there was also some discussions about systematic errors in the datasets. This is difficult to reveal through general statistics, and will be further discussed between the customs.

#### **Other products from the Ukraine to Norway (HS 61, HS 62, HS 95)**

35. The earlier mentioned mirror exercise for trade between Norway and the Ukraine performed for the year 2002 found remarkable discrepancies for manufactured goods, mainly clothes and sports equipment, and explained these with trade via third countries. This exercise was at that time performed with the basis of SITC 03. We will examine these commodity groups further, but now with the Harmonized system as a starting point. The main commodity groups subject to this are articles of apparel, accessories, knit or crochet (HS 61), articles of apparel, accessories, not knit or crochet (HS 62) and toys, games, sports requisites (HS 95). Together these groups made up 19 percent of the total Norwegian import from the Ukraine in 2005 and 16 percent in 2006. The trade of these commodities measured in USD, together with the discrepancies, is shown in table 4 and 5, for the years 2005 and 2006 respectively.

**Table 4. Ukraine's export, Norway's import and discrepancies of the commodity groups: HS 62, HS 95 and HS 61. 2005. USD**

Commodity group		Ukraine's export (X)	Norway's Import (M)	Discrepancy (M - X)
HS 62	Articles of apparel and clothing accessories, not knitted or crocheted	7 019	5 257 047	5 250 028
HS 95	Toys, games and sports requisites; parts and accessories thereof	1 879	3 778 890	3 777 011
HS 61	Articles of apparel and clothing accessories, knitted or crocheted	0	3 306 416	3 306 416

Source: UN Comtrade (28.11.2006)

**Table 5. Ukraine's export, Norway's import and discrepancies of the commodity groups: HS 62, HS 95 and HS 61. 2006. USD**

Commodity group		Ukraine's export (X)	Norway's Import (M)	Discrepancy (M - X)
HS 62	Articles of apparel and clothing accessories, not knitted or crocheted	0	6 040 223	6 040 223
HS 95	Toys, games and sports requisites; parts and accessories thereof	2 101	5 436 810	5 434 709
HS 61	Articles of apparel and clothing accessories, knitted or crocheted	0	5 173 834	5 173 834

Source: UN Comtrade (30.05.2007)

36. As seen from table 4 and table 5, the relative discrepancies within these commodities are remarkably large. To further examine the aspect of transshipment in relations to these groups, we focus on some of these commodity groups and look closer at their country of consignment.

37. The largest commodity on a six-digit level within the group of toys, games and sports requisites (HS 95) is snow-skis (HS 950611). In the study on 2002 all skis from the Ukraine were reported with Austria as the country of consignment. For 2005, 87 percent of all commodities under snow-skis (HS 950611) from the Ukraine came through Austria. In 2006 this had decreased somewhat, to 77 percent. Sweden is also registered as country of consignment for Norwegian import of skis from Ukraine. In 2005, 8 percent of all snow skis were reported with Sweden as country of consignment; in 2006 this had increased to 22 percent. These stops via third countries could explain some of the discrepancies within these commodities, if for instance Ukraine sends the skis to Switzerland without knowing the final destination of the product.

38. The figures shown in table 4 and in table 5 may indicate that this aspect also applies to the commodity group of articles of apparel, accessories, knit or crochet (HS 61) and commodity group articles of apparel, accessories, not knit or crochet (HS 62). As seen in table 4, the Ukraine had no registered export in 2005 of commodity group HS 61, while the equivalent Norwegian import was USD 3.3 million. In 2006 this had increased to USD 5.2 million, while Ukraine still have no registered export to Norway of products within this group.

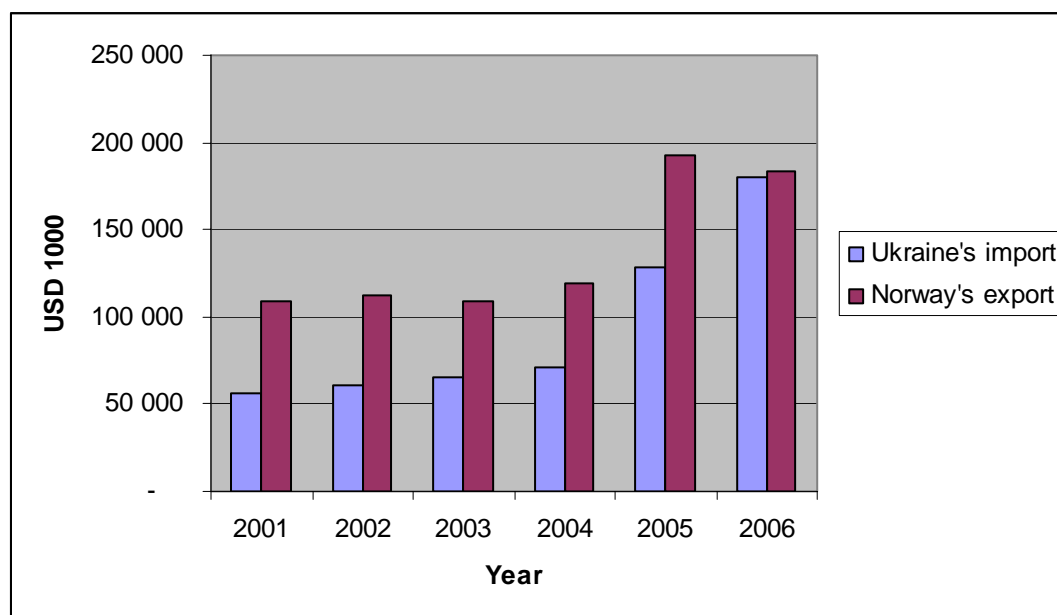
39. When looking at the Norwegian import figures for HS 61 in 2005, 70 percent of the import of this commodity group came through Denmark, while 15 percent came through Sweden. In 2006 import of this commodity group from the Ukraine with Denmark as country of consignment was approximately 68 percent.

40. In 2006 Norway has a registered import of commodity group HS 62 valued at USD 6 million. This was an increase of 15 percent from 2005. For products under this commodity group, 51 percent of the commodities from Ukraine in 2005 came through Sweden, 28 percent through Germany and 12 percent through Denmark. This could be an indication that the Ukrainian exporter did not know the final destination of the products. A potential reason could be further detailed processing in the specified countries before sent to Norway.

### **III. TOTAL TRADE FROM NORWAY TO THE UKRAINE**

41. In 2005 Norway exported commodities to the Ukraine at a value of USD 192 million. The equivalent reported import of the Ukraine was USD 128 million. While the Norwegian registered export in decreased with 5 percent from 2005 to 2006 till roughly USD 183 million, the Ukrainian import developed in the opposite direction. In 2006 the Ukrainian import was registered at roughly USD 180 million, a growth of approximately 40 percent since 2005. Figure 5 shows the development between the Ukrainian import and the Norwegian export, both measured in value, for the years 2001 to 2006.

**Figure 5. Ukraine's import and Norway's export, 2001 - 2006. USD thousand**



Source: UN Comtrade (14.05.2007)

42. Figure 5 shows relatively stable flows from Norway to the Ukraine from 2001 to 2004, with the Ukrainian import valued on average at USD 63 million per year. During this period Norway exported commodities to the Ukraine on average at a value of USD 112 million per year. However, in 2005 both the Ukrainian import value and the Norwegian export value had increased significantly. The development in import value, export value and the discrepancies from 2001 to 2006 can also be seen in table 6.

**Table 6. Ukraine's import, Norway's export and discrepancies. 2001 – 2006. USD thousand**

	Ukraine's import (UA Imp)	Norway's export (NO Exp)	Discrepancies (NO Exp - NO Imp)
2001	55 905	108 985	53 080
2002	60 885	112 186	51 301
2003	65 733	109 005	43 272
2004	70 902	119 252	48 350
2005	128 258	192 383	64 124
2006	179 749	182 993	3 244

Source: UN Comtrade (14.05.2007)

43. In 2005 the Ukrainian import made up 67 percent of the Norwegian export, while the previous years this was relatively stable around 50-60 percent. In 2006 the discrepancy was significantly smaller, valued slightly above USD 3 million. This is a relative discrepancy of only

2 percent, compared to 95 percent in 2001. This indicates an improvement of the asymmetry between Ukraine's reported import and the equivalent Norwegian reported export.

44. Theoretically we would not expect the Ukrainian import to be less than the equivalent Norwegian export, since the import is valued at CIF including cost, insurance and freight, while the export is valued at FOB. As already mentioned, from 2005 to 2006 the Norwegian export actually fell while the Ukrainian import increased. The result being that these two indicators are approaching the levels of each other. This could be a sign that the quality of the trade statistics has improved.

45. In the following sections we will shortly recap the results for the products that were mainly discussed at the working meetings. The main product exported from Norway to Ukraine is fish, crustaceans, molluscs and other aquatic invertebrates.

### **Commodities from Norway to Ukraine**

46. The data shows that the major increase in trade of commodities from Norway to Ukraine in 2005 to a large degree can be explained by an increase in Norwegian export and Ukrainian import of commodities within the group of fish, crustaceans, molluscs and other aquatic invertebrates (HS 03), from now on referred to as fish and fish products (HS 03). From 2004 to 2005 the Ukrainian import of fish and fish products (HS 03) close to tripled, from USD 48 million to more than USD 144 million.

47. The Norwegian export to the Ukraine is more concentrated than the Ukrainian equivalent import. The Norwegian export of fish and fish products (HS 03) made up 93 percent of the total Norwegian export to the Ukraine in 2005, while the equivalent in 2006 is 88 percent. Concerning the structure of the import, the total Ukrainian import from Norway of fish and fish products (HS 03) accounted for 80 percent of the total Ukrainian import of Norwegian products in 2006. However, the trade of some other commodity groups have also increased significantly, but is naturally less reflected in the total figures since these are considerably smaller than the figures for fish and fish products (HS 03). Regarding the Ukrainian import, this is the case for the groups of nickels and articles thereof (HS 75), plastics and plastic products (HS 39), nuclear reactors, boilers, machinery and mechanical appliances; parts thereof (HS 84) and electrical electronic equipment (HS 85). Together these made up 12 percent of the total Ukrainian import registered with Norway as the country of origin in 2006.

48. An overview of the largest commodity groups imported by the Ukraine with Norway reported as country of origin, together with Norway's equivalent export values, can be seen in table 7 and in table 8, for 2005 and 2006 respectively.

**Table 7. Main commodities imported from Norway by Ukraine, Norway's equivalent exports and discrepancies. 2005. USD thousand**

HS2	Commodity group	Ukraine's Import (UA Imp)	Norway's Export (NO Exp)	Discrepancy (NO Exp – UA Imp)
	Total	128 258	192 383	64 124
3	Fish, crustaceans, molluscs, aquatic invertebrates nes	100 127	161 153	61 025
75	Nickel and articles thereof	4 298	0	-4 298
39	Plastics and plastic products	4 066	1 010	-3 057
84	Nuclear reactors, boilers, machinery etc	2 637	5 322	2 685
85	Electrical, electronic equipment	6 571	3 974	-2 596

Source: UN Comtrade (14.05.2007)

**Table 8. Main commodities imported from Norway by Ukraine, Norway's equivalent exports and discrepancies. 2006. USD thousand**

HS2	Commodity group	Ukraine's Import (UA Imp)	Norway's Export (NO Exp)	Discrepancy (NO Exp – UA Imp)
	Total	179 749	182 993	3 244
3	Fish, crustaceans, molluscs, aquatic invertebrates nes	144 011	178 236	34 225
75	Nickel and articles thereof	8 008	0	-8 008
39	Plastics and plastic products	5 662	596	-5 067
84	Nuclear reactors, boilers, machinery etc	4 549	2 966	-1 583
85	Electric, electronic equipment	3 244	5 930	2 685

Source: UN Comtrade (14.05.2007)

49. Tables 7 and 8 show the five largest commodity groups imported by the Ukraine from Norway in 2005 and in 2006. Together these groups made up 92 percent of the total Ukrainian import value and 98 percent of the total Norwegian export value in 2005.

50. In the following sections we will focus on electrical, electronic equipment (HS 85) together with inorganic chemicals (HS 28) and pharmaceutical products (HS 30). Together these commodity groups make up the basis for the discussions that took place in Kiev and in Oslo concerning trade of commodities from Norway to the Ukraine. Concerning the discrepancies between the Norwegian export and the Ukrainian import, noticeable is as earlier mentioned the group of fish and fish product (HS 03). This is the product group that mainly determines the total discrepancies, and due to this we will regard this commodity group especially. This commodity group was also given extensive attention in both working meetings.



### Electrical, electronic equipment (HS 85)

51. The discrepancies within the group of electrical, electronic equipment (HS 85) are relatively small, the import value exceeding the export value slightly in 2005, while the opposite is the case in 2006. However, when looking at the different commodities within this group, and on a HS 4 digit level, the differences are noticeable.

52. The Ukrainian import of the commodity group of radio and TV transmitters, television cameras (HA 8525), amounts to 70 percent of the total Ukrainian import of commodity group HS 85 from Norway in 2005. In 2006 this percentage had decreased to less than 5 in 2006, something that indicates large fluctuations in the datasets and also possible errors. To see if this could be a potential explanation for the discrepancies, we look at the results for several years, see 9.

**Table 9. Ukraine's import, Norway's export and discrepancies of radio and TV transmitters, television cameras (HS 8525). 2001 – 2006. USD thousand**

	Ukraine's Import (UA Imp)	Norway's Export (NO Exp)	Discrepancy (Export- Import)
<b>2001</b>	226 830	17 797	209 033
<b>2002</b>	15 919	74 318	-58 399
<b>2003</b>	3 650	423 965	-420 315
<b>2004</b>	27 550	65 612	-38 062
<b>2005</b>	4 609 114	13 634	4 595 480
<b>2006</b>	150 494	30 750	119 744

Source: UN Comtrade (14.05.2007)

53. These relatively largely fluctuating results may indicate that at there might be some errors present in the dataset for trade of this product between Norway and Ukraine in 2005.

54. The Norwegian export of HS 85 on the other hand is dominated by the commodity group of insulated wire and cable, optical fibre cable (HS 8544), amounting to 67.7 percent of commodity group HS 85 in 2005. The equivalent for the Ukrainian import of this product is 2.2 percent, significantly lower. In 2006 the Norwegian export of HS 8544 had decreased from USD 4 million to USD 0.8 million, while the equivalent Ukrainian import had increased from USD 146 thousand to USD 758 thousand. This indicates different structures for the trade between Norway and the Ukraine regarding this commodity group, but total for group HS 85 is the reported trade similar. This could be a sign of errors within classification of products.

### **Other products from Norway to the Ukraine (HS 28, HS 75, HS 39)**

55. Excluding fish and fish products, the trade between Norway and Ukraine make up a relative small part of their total trade. Despite this, there are some interesting results also in these commodity groups. The third largest commodity group imported by Ukraine from Norway is HS 75: Nickel and articles thereof. Within this group, 88 percent of the Ukrainian import fell under HS 750210; Nickel unwrought, not alloyed. This commodity group made up 3.4 percent of the total Ukrainian import from Norway in 2005 and 4.5 percent in 2006. No commodities are recorded exported from Norway in 2005. A reason for this could be trade via third countries. To see if this might be the case we took a closer look at the Ukrainian import with regards to country of consignment. In 2006, 96 percent of Ukrainian import of this commodity group came via the Netherlands. This shows that these products are sent through a third country, and a potential reason for the discrepancy could be unknown final destination by the Norwegian exporter, which for instance have registered the export with the Netherlands as the destination country.

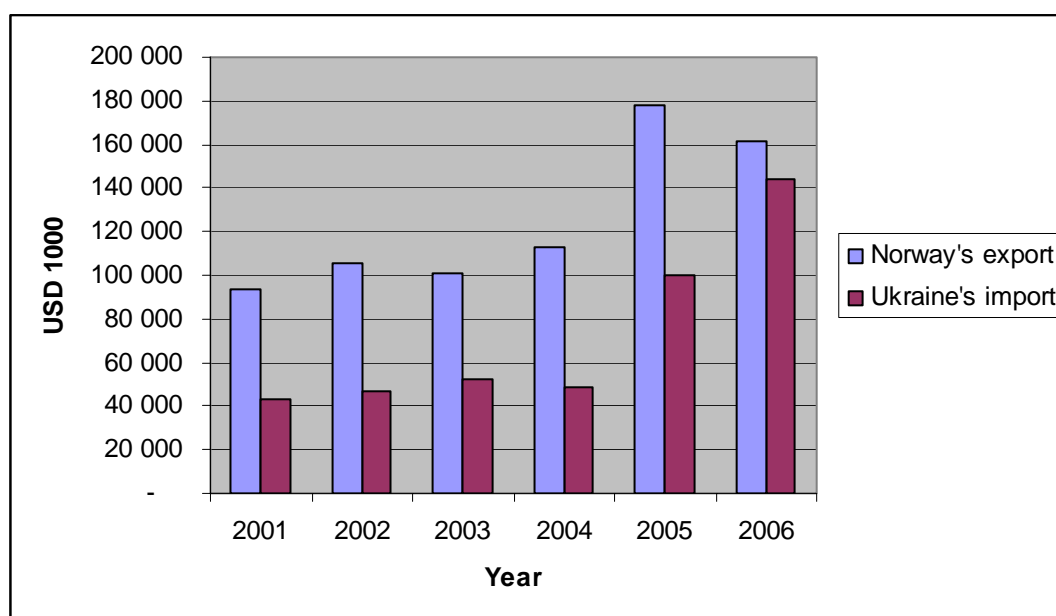
56. As for the commodity group of inorganic (HS 28), Ukraine has a registered import value of USD 1 million in 2005 and almost USD 3 million in 2006. Norway has no reported export of this commodity to the Ukraine in 2006. In 2005 the Norwegian export of inorganic chemicals (HS 28) constituted only 12 percent of the Ukrainian equivalent import. However, a large part of the Norwegian exports of commodities in group HS 28 is suppressed, something that can explain the relative large asymmetries between the Ukrainian import and the Norwegian export. In addition to this, also plastics and articles thereof (HS 39) is in the Norwegian export data severely suppressed.

### Fish, crustaceans, molluscs and other aquatic invertebrates (HS 03)

57. As mentioned earlier, the commodity group of fish, crustaceans, molluscs and other aquatic invertebrates (HS 03) is the most dominant commodity group that is traded between Norway and Ukraine, making up approximately 88 percent of the total Norwegian registered export to the Ukraine in 2006.

58. The asymmetry between Ukraine's imports of commodities falling under commodity group HS 03 and the Norwegian equivalent exports amounted in 2005 to USD 78 million. The reported Ukrainian import of this commodity group increased from USD 100 million in 2005 to USD 180 million in 2006. Together with a small reduction in the Norwegian export value from 2005 to 2006, the discrepancy between the Norwegian export value and the Ukrainian import value was reduced to USD 17 million in 2006. The development between the Ukrainian import value and the Norwegian export value is graphically presented in figure 6.

**Figure 6. Ukraine's export and Norway's import of fish, crustaceans, molluscs and other aquatic invertebrates (HS03), 2001 – 2006. USD thousand**



Source: UN Comtrade (14.05.2007)

59. Figure 6 shows how the Norwegian export had a remarkable increase in its registered export to the Ukraine from 2004 to 2005. In 2006 this decreased somewhat, but still slightly above the Ukrainian registered import value. Measured in percentages, the discrepancy was relatively stable from 2001 to 2005, the Ukrainian import making up around 50 percent of the Norwegian export, with a peak in 2005 of 56 percent. In 2006 the Ukrainian import made up 89 percent of the Norwegian export value, a significant improvement of the asymmetry.

60. In the following sections we will focus at more detailed data for the groups of fish and fish products (HS 03). We will also regard quantity, since the UN Comtrade provides this variable for data more detailed than HS 2 digits.

#### Frozen fish (HS 0303)

61. On a HS 4 digit level, the main group that the Ukraine imports from Norway is frozen fish (HS 0303). The value of Ukraine's import of this commodity group was USD 94 million in 2005 and USD 127 million in 2006. Despite this increase, the share of frozen fish as percentage of the total import of fish products from Norway decreased from 94 to 88 percent from over these two years, indicating a raise in the trade of other fish types between Norway and the Ukraine.

62. Measured in value, the Norwegian registered export of frozen fish exceeds the Ukrainian import on an average of USD 59 million each year from 2001 to 2005. In 2006 there was however a significant drop in this discrepancy; the Norwegian exports exceeding the Ukrainian imports with no more than USD 3.6 million. However, when measured in quantity, the results

are somewhat different and the quantities traded recorded by the Ukraine are smaller than the Norwegian registered export. From table 10 we see how this has developed since 2001.

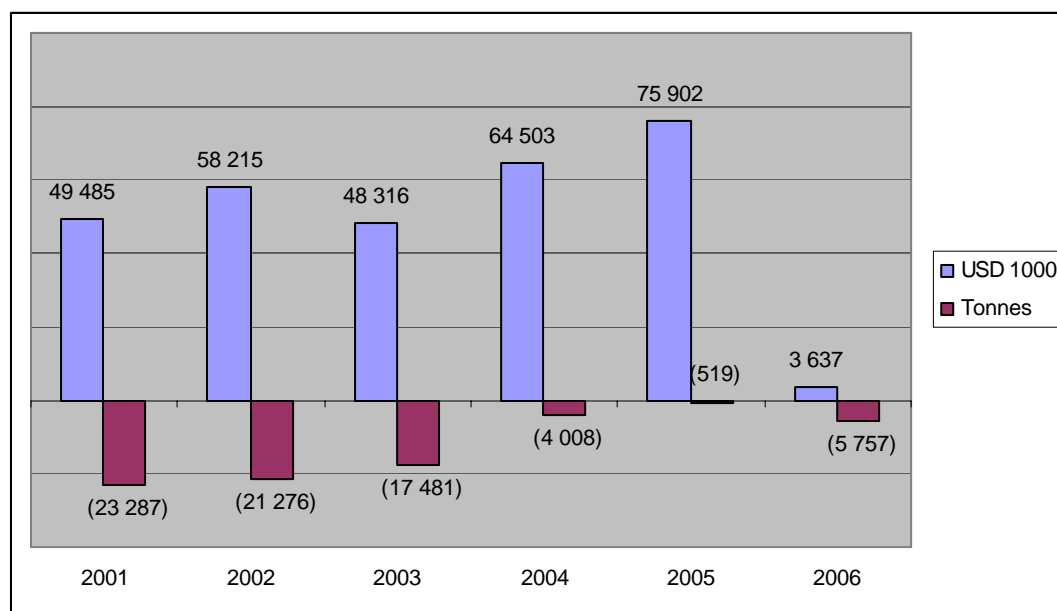
**Table 10. Ukraine's import and Norway's export of fish, frozen, excluding fish fillets (HS 0303). 2001 -2006. USD thousand and tonnes**

Year	Ukraine's import		Norway's export	
	USD 1000	Tonnes	USD 1000	Tonnes
2001	42 809	173 207	92 294	149 920
2002	46 349	169 549	104 564	148 272
2003	51 203	149 451	99 519	131 971
2004	47 010	130 345	111 513	126 337
2005	94 483	159 881	170 385	159 362
2006	127 079	122 380	130 716	116 623

Source: UN Comtrade 14.05.2007

63. Measured in quantity the discrepancies are much smaller than for value, but in the opposite direction as for value since the Ukrainian figures are greater than the Norwegian figures. In 2005 the Ukrainian import exceeded the Norwegian export with only 519 tonnes, while the equivalent for 2006 was approximately USD 5 800 tonnes. Figure 7 shows the development within the discrepancies for value and quantity respectively.

**Figure 7. Discrepancy (Ukraine's import – Norway's export) for fish, frozen, excluding fish fillets (HS 0303). 2001 - 2006. USD thousand and tonnes**



Source: UN Comtrade 14.05.2007

64. Figure 7 shows how the discrepancies both measured in value and quantity have developed

from 2001 till 2006. Focusing on the years 2001 till 2005, the discrepancy for the group of frozen fish (HS 0303) measured in value has increased while the gap between export and import measured in quantity has become smaller. Looking closer at the figures presented in table 10 we see that the most remarkable result is the large discrepancies within trade value as compared to the discrepancies within the quantities traded. As already mentioned, in 2005 the discrepancy for quantities traded was just above 500 tonnes, less than one percent of the total Ukrainian import quantity of frozen fish. Since the quantities traded are relatively similar, we would expect these to be somewhat correct measurements in each of the trading countries. For value however, the discrepancy was negative and made up close to 80 percent of the Ukrainian import value. This could indicate that the value is under- or over estimated in either the import or export country.

65. The five largest sorts of frozen fish (HS 0303) that was imported in the Ukraine from Norway in 2005 made up 90 percent of the total fish imported. In 2006 this had decreased to 86 percent. On a HS six digit level these are distributed as shown in table 11 and in table 12, for 2005 and 2006 respectively.

**Table 11. Trade of frozen fish (HS 0303) from Norway to Ukraine. HS six digits. 2005. USD thousand and tonnes**

Commodity		Ukraine's import (M)		Norway's export (X)		Discrepancies (M - X)	
		1000 USD	Tonnes	1000 USD	Tonnes	1000 USD	Tonnes
030350	Herrings	56 490	105 880	104 971	108 997	-48 480	-3 117
030373	Coalfish	9 037	17 373	20 070	16 378	-11 033	995
030374	Mackerel	8 725	8 610	16 912	7 630	-8 186	980
030379	Other frozen fish	8 450	22 841	2 644	5 060	5 806	17 781
030322	Atlantic salmon	7 055	2 517	8 004	1 814	-949	703

Source: UN Comtrade (21.11.2006)

**Table 12. Trade of frozen fish (HS 0303) from Norway to Ukraine. HS six digits. 2006. USD thousand and tonnes**

Commodity		Ukraine's import (M)		Norway's export (X)		Discrepancies (M - X)	
		1000 USD	Tonnes	1000 USD	Tonnes	1000 USD	Tonnes
30350	Herrings	69 016	86 199	72 773	84 414	3 758	-1 785
30374	Mackerel	17 388	9 155	16 638	9 919	-751	763
30373	Coalfish	16 807	14 452	18 087	14 295	1 280	-157
30322	Atlantic salmon	9 214	2 233	11 779	2 222	2 565	-11
30321	Trout	6 871	1 318	6 884	1 274	13	-43

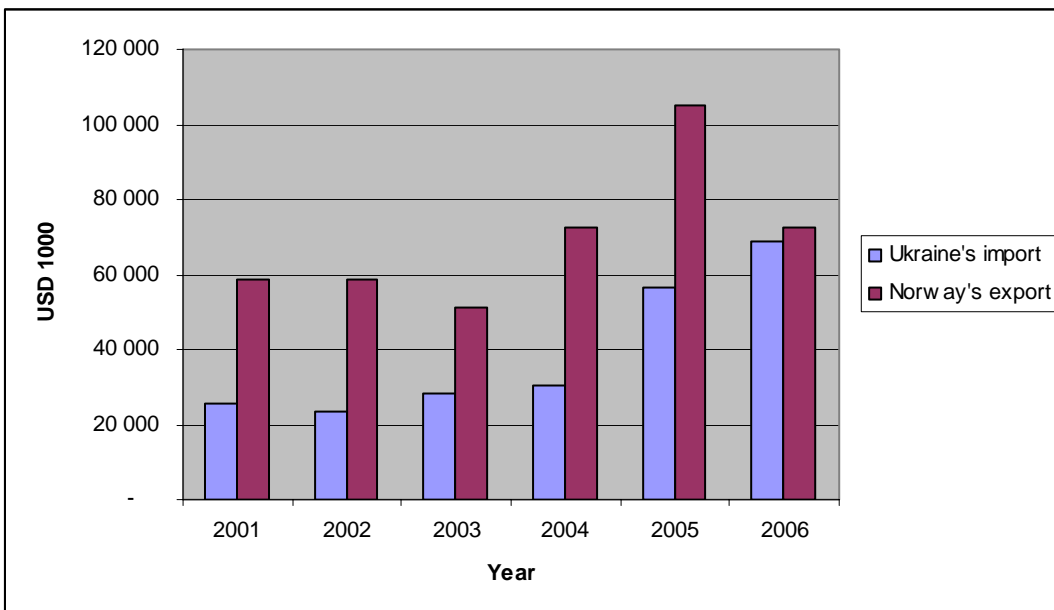
Source: UN Comtrade 14.05.2007

66. The main Norwegian product that is traded between the Ukraine and Norway is frozen Herring (HS 030350). Tables 11 and 12 show how the trade of the discrepancy within this product has changed remarkably from 2005 to 2006.

67. Frozen herring constituted 56 percent of the total fish products that was imported into the Ukraine from Norway in 2005 and 44 percent of all Norwegian products in total registered imported. The equivalents for the Norwegian export to Ukraine were 59 and 55 percent. The discrepancy within this group amounted in 2005 to approximately USD -48 thousand, the export exceeding the import. To see whether or not the discrepancies are due to errors within the valuation of the products, we look at the exports and import volumes and compare these to the import and export value. While the Ukrainian import in 2005 was a little below USD 57 million, the equivalent value for the Norwegian export was USD 105 million, indicating close to double the size for the Norwegian export than the Ukrainian import when measured in value. In terms of quantity the scenario is different, as also seen for frozen fish in general. While the Ukrainian import amounted to about 106 thousand tonnes, the Norwegian export was reported at 109 thousand tonnes; only three percent of the Norwegian export is not covered by the Ukrainian import. This could be an indication of errors within the valuation of the product, since they report approximately the same traded quantities. One reason could be intentional misreporting of the value which could be economically beneficial for the trader. To have access to Ukrainian import declarations for so to compare these to the equivalent Norwegian export declarations could be helpful for revealing reasons for these discrepancies. Such working methods include the exchange of detailed data and will be further discussed between the customs.

68. As seen from table 11 and table 12, the discrepancy for frozen herring when measured in value changed noticeable from 2005 till 2006. This can also be seen in figure 8 where Ukraine's import and Norway's export, both in value, is presented graphically from 2001 to 2006.

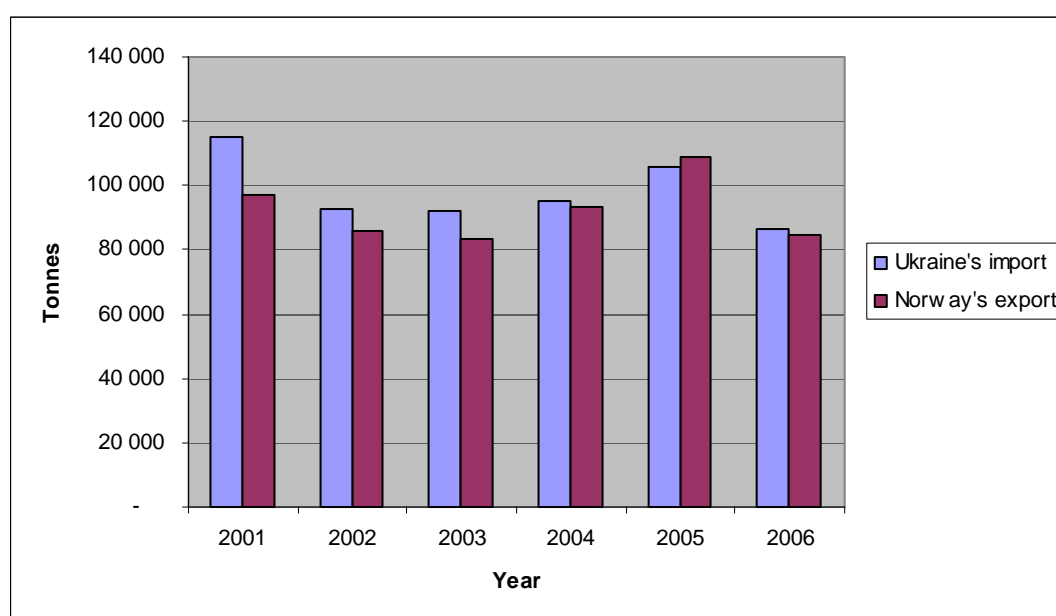
**Figure 8. Ukraine's import and Norway's export of frozen Herring (HS 030350). 2001 - 2006. USD Thousand**



Source: UN Comtrade 14.05.2007

69. Ukraine's import value constituted on average from 2001 to 2005 about 47 percent of the Norwegian reported export value. In 2006 was this amounting to 95 percent. It was discussed that this could be an indication of greater quality within the trade statistics as a result of more intensive control by the customs at the border. However, from figure 8 we also see that the Ukrainian import value has risen steadily from 2004 to 2006. The following figure shows the same as figure 8, but now measured in quantity instead of value.

**Figure 9. Ukraine's import and Norway's export of frozen herring (030350). 2001 - 2006. Tonnes**



Source: UN Comtrade 14.05.2007

70. These results show how the quantity traded has been subject to only small asymmetries all the years we are looking at. Since the import and export volumes in this figure more or less coincide, we assume that these are approximately a correct reflection of the real trade of fish between Norway and Ukraine. If compared to figure 8 we see that the development within the Norwegian export value virtually follows the development for the quantities traded, as registered both by Ukraine and Norway. If we take a look at the export prices, here defined as the export value divided by the export quantity, we see that the Norwegian export price to the Ukraine decreased from 2005 to 2006. This is the same development as the Norwegian export price to other countries as well, such as Russia, Belarus and Poland, all large importers of Norwegian herring. This is in contrast to the Ukrainian import prices of frozen herring from Norway, which is subject to an increase from 2005 to 2006. As for frozen herring, we can also see the discrepancy between Norwegian export and Ukrainian import measured in value decreasing significantly from 2005 to 2006 also for several of the other groups of fish.

71. Other frozen fish types that are traded between Norway and the Ukraine is frozen coalfish, frozen mackerel and frozen trout. These all show relatively small discrepancies between Ukraine's import and Norway's export, both in quantity and values.

72. A noteworthy result besides these mentioned commodities is the trade in fish under commodity code HS 030379 - Other frozen fish. This is a relative small commodity group, the Norwegian export of this product making up less than 1 percent of the total export of fish to Ukraine in 2006. However, the results are noticeable since as opposed to fish in general and for other frozen fish besides this commodity, the Ukrainian import actually exceeds the Norwegian export both in value and in quantity and for both 2005 and 2006. This could be an indicator that some commodities are wrongly classified, often a problem with groups of “other products”, and could be reasoned by poor labelling in the exporting country.

73. Another fish type worth mentioning is fresh or chilled whole salmon (HS 030212). Norway has traditionally not much export of this to Ukraine, but there was a significant increase of trade of this commodity between Norway and Ukraine in 2006 compared to earlier years. In 2006 Norway had an export of this commodity of around USD 17 million while the equivalent import for the Ukraine was closer to USD 8 million. This discrepancy is also reflected in the quantity traded; 3.2 thousand tonnes is registered exported from Norway while only USD 1.7 thousand tonnes is registered as Ukrainian import. Fresh or chilled salmon is a large commodity exported from Norway to the rest of the world, and the results for 2006 may indicate that the trade of this product between Ukraine and Norway will increase in the future.

74. The results for the case of fish and fish products (HS 03) from the years prior to 2006 are remarkable as they give a picture of a situation not suited for either trading country. When the import value only constitutes half of what is registered exported, and the quantities are relatively similar, it could be a sign of deliberate devaluation of the fish along its trade route. The greatly improved asymmetries for 2006 is reasoned with increased control routines in Ukraine for some of the greater commodities imported, one of these being fish.

## **CONCLUDING REMARKS**

75. These results give an indication of the main discrepancies between the equivalent trade flows for Norway and the Ukraine. The main product traded is the commodity group of fish, crustaceans, molluscs and other aquatic invertebrates (HS 03) and this is also the group where we find the largest discrepancies. The largest differences are to be found in the group of frozen fish and fish products (HS 0303). While the differences between Norwegian export and Ukrainian import measured in quantity are relatively small, the discrepancies when measured in value are in comparison remarkably large. This is especially the case for the years up to 2006, when the asymmetries are greatly improved.

76. The main three reasons that were found for discrepancies in these datasets are here shortly summarized. First, trade via third country. This was shown to be a significant reason for several of the commodities traded. When looking at the trail of the commodities, here through country of consignment, wrongfully reported country of origin or country of final destination were indicated. A clear example of this was the trade of snow skis and clothes from Ukraine to Norway. This is a problem increasing with globalisation, as the borders open and intermediate stops for processing become more frequent. The second major reason in some of the commodities was confidentiality in the datasets, only shortly mentioned in this working paper.



The most extraordinary result was for the case of fish, as also seen in the study of Anne Berit Dahle (2004). Excluding the years 2006, the export value of the fish was severely higher than the import value, while the quantities were relatively equal. It was indicated that this could be due to intentional devaluation by trading parties. However, the last year the border control of the Ukrainian customs have been intensified, especially for certain risk commodities with fish being one of these. Whether or not this reasons the results for 2006, where the asymmetries within value have decreased considerably, is difficult to determine exactly.

77. The results of the trade statistics between Norway and Ukraine reflect the need for strict border controls of trade, especially in terms of fish. An agreement between the Norwegian and the Ukrainian customs was made prior to the start of this cooperation, but will be in force May 2007. This will simplify the exchange of detailed data between the customs, and could then lead to better control of the trade between Norway and Ukraine.

## **APPENDIX 1.**

### **AIDE MEMOIR**

#### **on Ukrainian – Norwegian consultations on external trade statistics**

Kyiv, 25-26 January 2007

Under the EFTA – funded project on "Mirror and reconciliation exercises for external trade statistics between Norway and Ukraine" and further to the previous agreements between Ukraine and Norway, the working meeting of experts on external trade statistics between State Statistics Committee of Ukraine and State Customs Authority of Ukraine and Central Statistical Bureau of Norway took place in Kyiv from 25 to 26 January 2007.

The participants of the working meeting:

from Ukrainian Side:

State Statistics Committee of Ukraine

Anatoly O.Frizorenko – Director, Trade Statistics Department; Larysa M.Matronich – Deputy Director, Trade Statistics Department, Head of External Trade Statistics Department;

Olga V.Dyachenko – Senior economist; External Trade Statistics Department;

State Customs Authority of Ukraine

Natalia M.Antonova – Head; Unit for Statistical Comparisons;

Dmytro S.Miroshnichenko – Senior inspector; Unit for Statistical Comparisons.

from Norwegian Side:

Central Statistical Bureau of Norway

Leif Korbøl – Head; Division for External Trade;

Christine Kleppe – Specialist; Division for External Trade.

In the course of consultations the following issues have been considered:

- organization of co-operation between Ukraine and Norway in the area of exchanging statistical data on external trade;
- comparison of key methodological principles used for production of external; trade statistics in Ukraine and Norway;
- mirror comparison of external trade statistics at the commodity group level ( 6-digit of HS) using the external trade data between Ukraine and Norway in 2005 based on the data included into the database of UNSD Comtrade.

It has been noted that in 2005 Norway used HS 2002, while Ukraine – HS 1996. Statistical threshold in Norway is 1 000 NOK (appr. 130 USD), in Ukraine it equals 100 euro for legal entities and natural persons – entrepreneurs.

When conducting mirror exercise between Norway and Ukraine for 2005 the following discrepancies have been revealed.

(thous.USD)

Commodity Flow	UA data	NO data	Difference	
Norway - Ukraine	128 022	192 383	-64 361	-33%
Ukraine-Norway	46 854	63 785	-16 931	-27%

When comparing commodity groups at the 2-digit level the largest discrepancies are observed for the following commodity groups:

COMMODITY FLOW		thous. USD
<b>Norway`s Export – Ukraine`s Import</b>		
03	Fish, crustaceans, mollusks, aquatic invertebrates	78 109
87	Ground transport vehicles, excluding railway	510
94	Furniture	389
75	Nickel and articles thereof	- 4 298
39	Plastics and articles thereof	- 3 470
28	Inorganic chemicals precious metal compound isotopes	- 2 874
30	Pharmaceuticals	- 936
31	Fertilizers	- 645
85	Electrical, electronic equipment	- 641
63	Other manufactured textile articles	- 524
<b>Ukraine`s Export – Norway`s Import</b>		
72	Ferrous metals (iron and steel)	14 774
38	Other products of chemical industry	420
28	Inorganic chemicals precious metal compound isotopes	3 365
62	Articles of apparel, accessories, not knit or crochet	- 5 250
12	Seeds and products of oily plants	- 4 301
61	Articles of apparel, accessories, knit or crochet	- 3 306
44	Wood and articles thereof	- 1 230
23	Residuals and wastes of food industry	- 924
56	Cotton wool	- 782
42	Articles of leather	- 434
95	Toys, games	- 376

For the purpose of data comparison at the 6-digit level of HS the following commodity groups have been selected – 03, 75, 39, 28, 30 (NO export – UA import) and 72, 28, 62, 12, 61, 44 (UA export – NO import) where discrepancies between Ukrainian and Norwegian trade data are the most significant.

When examining the data at 6-digit level the experts suggested the following reasons of discrepancies:

- for commodity groups 28 (appr. 86% of the information) and 39 – due to

- confidentiality of Norwegian data;
- for commodity groups 75, 30, 72, 62, 12, 61, 44 – trade via third countries;
- for commodity group 03 – price difference occurred at the stage of commodity declaration in Ukraine and Norway.

Also the following factors could impact on discrepancies of statistical data at the 6-digit level of HS:

- differences in commodity classifications used due to application of different versions of HS;
- different approaches for classification of some commodities.

By the results of the consultation held the Sides agreed on the following:

- to exchange with methodology used for compilation of external trade statistics;
- to exchange with i) information on external trade between the countries in 2006 and ii) results of additional analysis of data discrepancy (for 2006).

The Sides considered that it would be useful to have another working meeting of external trade statistics experts to i) consider and discuss methodological principles for external trade statistics compilation and ii) conduct mirror exercise at the 6-digit level of HS for the commodities having the largest discrepancies and that of having the great interest for the Sides. The meeting is planned for the II quarter 2007 (late April) with participation of representatives of statistical offices of both countries and Customs Authorities of Ukraine and Norway, as agreed with Norwegian Side.

Kyiv, 26 January 2007

From and for Ukrainian Side

Director, Trade Statistics Department,  
SSCU

\_\_\_\_\_ A. Frizorenko

From and for Norwegian Side

Head, Division for External Trade,  
Statistics Norway

\_\_\_\_\_ L.Korbol

Head, Unit for Statistical Comparisons  
State Customs Authority of Ukraine

\_\_\_\_\_ N.Antonova

## APPENDIX 2.

### AIDE MEMOIR

#### On Ukrainian – Norwegian consultations on external trade statistics

Oslo, 19 – 20 April 2007

The background for the meeting was the EFTA funded project on "Mirror and reconciliation exercises for external trade statistics between Norway and Ukraine" and was a follow-up meeting from consultations in Kiev 25 – 26 January 2007. The participants were representatives from State Statistics Committee of Ukraine, State Customs Authority of Ukraine, Statistics Norway and the Norwegian Customs and Excise.

#### Participants

##### **State Statistics Committee of Ukraine:**

Anatoly O.Frizorenko – Director of Trade Statistics Department  
Larysa M.Matronich – Deputy Director, Trade Statistics Department  
Olga V.Dyachenko – Senior economist; External Trade Statistics Department

##### **State Customs Authority of Ukraine:**

Natalia M.Antonova – Head of Unit for Statistical Comparisons  
Dmytro S.Miroshnichenko – Senior inspector; Unit for Statistical Comparisons

##### **Norwegian Customs and Excise:**

Kjetil Løkken – Adviser, Procedures and Enforcement Department  
Kari Rikardsson – Acting Assistant Director, Procedures and Enforcement Department  
Bjørg Lillebo – Adviser, Procedures and Enforcement Department  
Viggo Elster – Adviser, Procedures and Enforcement Department

##### **Statistics Norway:**

Leif Korbøl – Head of Division for External Trade  
Christine Kleppe – Senior Executive Officer, Division for External Trade

##### **Agenda for the meeting:**

- Review of the data exchanged for 2006 on a HS 6-digit level, as agreed upon in Kiev in January
- Review of the development with the trade of fish between Ukraine and Norway
- Mirror comparison of data for 2006 with regards to country of consignment
- Comparison of methodological principles in trade statistics between Ukraine and Norway
- Meeting with the Norwegian Customs and Excise for discussions of exchanging data

**Presentations:**

- Introduction to international trade statistics in Norway (Olav Ljones, Director of Economic Statistics, Statistics Norway)
- Trade with services (Pål Holmen, Adviser, Division for External Trade, Statistics Norway)
- Introduction to the the Norwegian import and export declaration system (TVINN) (Kjetil Løkken)
- Presentation of Customs region Oslo and Akershus (Roar Weltzien, Senior adviser, Customs Region Oslo, Controller unit)

**Trade between Norway and Ukraine 2006**

The following table shows total trade between Norway and the Ukraine measured in value (USD 1000) for the year 2006.

Commodity Flow	Ukraine	Norway	Discrepancy	Import % of Export
Norway → Ukraine	179 749	182 993	3 244	98 %
Ukraine → Norway	87 025	105 236	18 211	121 %

It was found that the most significant change in the trade data from 2005 till 2006 was the decrease in the discrepancy between Norwegian export and Ukrainian import. This was mainly a result of the decrease in the discrepancy for HS 03: Fish, crustaceans, molluscs and other aquatic invertebrates, and under here; 030350: Frozen Herrings.

The Norwegian export of 030350: Frozen Herrings and the Ukrainian equivalent import data for 2006 measured in value and quantity is shown in the following table:

	NO export	UA Import	Discrepancy	UA Import as % of NO export
Value USD 1000	72 627	69 016	3 611	95 %
Quantity Tonnes	84 414	86 199	-1 785	102 %

The discrepancy for this commodity turned out to be significantly less in 2006 than in 2005. The decrease within the differences could be a result of increased control within the Ukrainian customs for so called risk-commodities, with fish being an important commodity group. The next step regarding this is to see the monthly development within this group of fish.

Note that the total data for Norway may deviate somewhat from the results when aggregating all HS6. This is due to confidentiality in Norwegian data on a HS6 level. It was requested to include the confidential commodities in a new HS6 group so the total aggregates would equal. In addition the Norwegian figures that were discussed may differ from the UN Comtrade figures. This is due to the exchange of preliminary figures with the Ukraine.

The main other commodities on a HS 6-digit level and HS 4-digit level that were discussed can be reviewed in the following tables.

**Norwegian Export → Ukrainian Import. 2006. USD 1000**

<b>HS6</b>	<b>Commodity group</b>	<b>NO Export</b>	<b>UA Import</b>	<b>Discrepancy</b>
750210	Nickel, not alloyed, unwrought	0	7 814	-7 814
390410	Polyvinyl chloride, in primary forms, not mixed with any other substances	0	5 183	-5 183
284920	Carbides of silicon, whether or not chemically defined	0	878	-878
300450	Medicaments containing pro-vitamins, vitamins, incl. natural concentrates and derivatives thereof	0	1 444	-1 444

**Ukrainian Export → Norwegian Import. 2006. USD 1000**

<b>HS6</b>	<b>Commodity group</b>	<b>UA Export</b>	<b>NO Import</b>	<b>Discrepancy</b>
281410	Anhydrous ammonia	25 730	54 538	28 808
610610	Women's or girls' blouses, shirts and shirt-blouses of cotton, knitted or crocheted (excl. t-shirts and vests)	0	842	842
620463	Women's, girl's trousers, shorts, synth. fibres, not knit	0	974	974
120890	Flours and meal of oil seeds or oleaginous fruit (excl. soya and mustard)	0	4 056	4 056
441214	Plywood consisting solely of sheets of wood ≤ 6 mm thick, with at least one outer ply of non-conifer	161	703	542
<b>HS4</b>	<b>Commodity group</b>	<b>UA Export</b>	<b>NO Import</b>	<b>Discrepancy</b>
7202	Ferro-alloys	1 214	0	-1 214
7208	Flat-rolled products of iron or non-alloy steel, of a width of ≥ 600 mm, in coils, simply hot-rolled, not clad, plated or coated	38 379	5 967	-32 413

The reasons for discrepancies were to a large degree explained by trade via third countries. Data to base this decision upon was exchanged in form of import statistics including country of consignment. For frozen fish (0303) 32 percent of Ukraine's import from Norway was registered with Lithuania as country of consignment, while 28 percent was registered with Norway as country of consignment.

Several commodity groups seemed to be affected by systematic errors. Several of these are reasoned with the change of ownership during transportation.

### **Methodological principles**

A list of methodological comparisons was presented by SSB, and principles and differences concerning this list were discussed. This list will be more thoroughly prepared by the SSB and then sent to SSCU who will review and edit the document so it can serve as an appendix in the final document.

The main differences with the methodological factors are the use of HS harmonized system. While Norway used HS 2002 (till January 2007, when HS 2007 will be used) Ukraine follows the standards of HS 1996. Concerning confidentiality Norway operates with a so-called passive confidentiality while Ukraine operates with active confidentiality. This implies that in both countries data shall be considered confidential when they allow an enterprise (a natural or legal person) to be identified, either directly or indirectly. However, in Norway Statistics Norway determine only after a request of the enterprise whether the data are to be disseminated or are to be treated in such a way that their dissemination does not prejudice statistical confidentiality.

### **Other subjects of discussion**

The agreement on exchanging data between Norwegian and Ukrainian customs was discussed. The agreement allows for exchange of detailed data on specific identified cases for trade between Norway and Ukraine. This may be a useful method to reveal reasons for the discrepancies between data on a detailed level. However, detailed data can not be exchanged on basis of statistical findings, e.g. mirror statistics. This agreement is ratified and will be in force by May 2007. So far the Norwegian customs has received approximately 20 individual cases for review. Ukraine has a similar agreement with Lithuania.

### **Conclusion**

To discover any potential changes in the structure of discrepancies within the mirror statistics, both sides will keep having a close look at the main product groups traded between Ukraine and Norway. Norway will finish the outline of the methodological principles which will be sent to Ukraine for further preparation. This will be an appendix in the report describing the mirror statistics between Norway and the Ukraine.

The Ukrainian customs will identify individual cases for so to send these for review in the Norwegian customs. This will especially be the case for fish, and will aim at revealing where and how the reduction of the value takes place.



**APPENDIX 3.**

<b>Nr.</b>	<b>Subject</b>	<b>Ukraine</b>	<b>Norway</b>	<b>Comments</b>
1	Producer of the statistics	State Statistics Committee of Ukraine (SSCU)	Statistics Norway (SSB)	
2	Sources for trade statistics	<p>Customs declarations (98%) and 2 reports (statistical surveys reporting accounting records of enterprises and organizations)</p> <p>The data are compiled on the basis of customs cargo declarations and enterprises' reports on goods that are not subject to declaration, with adjustments of the SSCU on the basis of current information from the Ministry of Energy (oil) and State Oil and Gas Committee (for natural gas)</p>	<p>Customs declarations (SAD forms) and direct reports from enterprises. (For crude oil and natural gas: enterprises, the Petroleum Directorate and the Department of oil and Energy. For vessels: the Norwegian ship's registers NOR and NIS, and supplementary sources)</p>	
3	Reference period	The month in which the goods are imported or exported, generally when the customs authority accepts the declaration.	The month of the declaration	
4	Trade System	General trade system (Includes all commodities crossing the national boundary of the Ukraine including goods imported into and exported from customs warehouses and free zones. Some peculiarities due to warehouses, depending on the regime)	General trade system (Direct imports recorded at the time of customs clearance. Goods through customs warehouses recorded as imports when they are declared at their entering into the warehouse and as exports at their final clearance for abroad)	Goods from abroad entering a customs warehouse and directly for abroad are not included (transit of foreign goods through Norwegian customs warehouses)

5	Statistical area	The statistical territory equals the customs territory	The statistical territory equals the customs territory which is Mainland Norway, plus the extra-customs-territories being the Norwegian part of continental shelf, Svalbard and Jan Mayen (incl Bjørnøya)	
6	Harmonized System classification	HS 6 extended to a 10 digit level	HS 6 extended to an 8 digit level	Not comparable beyond 6 digits
7	Import statistics	Included in the import statistics: Goods re-imported and goods imported for process or incorporation with other goods	Includes commodities cleared on arrival for free circulation and commodities placed in customs warehouses for processing. Imports directly to installations on the Norwegian Continental shelf is excluded (included directly in BoP).	
8	Registration of imports	With country of origin, at a CIF value	With country of origin, at a CIF value	
9	Inclusive in export statistics	Re-exports not distinguished from exports.	Includes all exports directly from free circulation and Norwegian goods through customs warehouses (including crude oil and natural gas directly exported from the Norwegian Continental Shelf and coal from Svalbard)	
10	Registration of exports	With country of destination, at a FOB value	With last known country of final destination, at a FOB value	
11	Confidentiality	No confidentiality in data	Selected commodities confidential at several levels	Some commodity groups not comparable on a detailed level

12	Data editing/revision	<p>Monthly. Adjusted quarterly trade data and volumes of non-official trade calculated by the National Bank of Ukraine are included in the Balance of Payments. Some revision within volume (approx. 2 %). Raw oil and natural gas is being revised by volume. This due to the peculiars in how these are being registered.</p> <p>Volumes are also being revised when the goods come from ports, fish in foreign waters and for boats that are not declared</p>	<p>Monthly and yearly.</p> <p>The Norwegian Customs performs certain controls. SSB performs quality controls based upon price, quantities and partner countries. The revisions are monthly, quarterly and annual.</p>	<p>The Norwegian data capture for fish landed by Norwegian vessels may be incomplete. Data for adjustment are not yet available.</p>
13	Seasonally adjusted figures	No	Yes, monthly on value series; quarterly on volume index series	
12	Statistical threshold	Only recorded when value is above Euro 100 for legal persons and Euro 200 for physical persons	Total census of external trade statistics, but only consignments of value above NOK 1000 are included	
14	Transit trade	Not included in statistics (Goods entered from storage in bonded warehouses and afterwards are exported there from are included in the statistics as following the 'general' system of recording.	Consignments of goods in direct transit are not included in the statistics. Excluded are also foreign goods only passing through a Norwegian customs warehouse (Warehousing with no declaration at the arrival)	

\* \* \* \* \*