STATISTICS DENMARK

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MZ:2007:5

Mission Report

FOREIGN TRADE STATISTICS (FTS)

June 2007

TA for the Scandinavian Support Program to Strengthen the Institutional Capacity of the National Statistics, Mozambique

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List of abbreviations

CO	Scanstat Coordination Office in Statistics Denmark
Danida	Danish International Development Assistance
DKK	Danish Kroner
DSt	Statistics Denmark
EUR	European Euro
INE	Instituto Nacional de Estatística, Mozambique
INE-P	Instituto Nacional de Estatística, Portugal
MZM	Mozambique Meticais
NOK	Norwegian Kroner
Scanstat	Consortium between Statistics Denmark, Statistics Norway and Statistics Sweden
SCB	Statistics Sweden
SEK	Swedish Kronor
SSB	Statistics Norway
USD	US Dollars
ZAR	South African Rand

1 EXECUTIVE SUMMARY

1.1 *Major reason for the mission*

This report is a direct continuation of the work started at the mission in **14 - 17 November 2006**. The November mission had to be aborted halfway because of serious illness. The June mission is a direct continuation of this work, and ToR includes the same tasks. The objective is for the Foreign Trade Statistics (FTS) staff at INE to enable to learn using a pilot system for regular production of regular FTS. The data for all months 2006 are used for the development work. This report describes the framework of such a pilot system. The target is that the FTS staff to continue with training and developmental work by their own. The system was copied to the FTS staff on CD and is the main output from the mission.
Some recommendations for how the FTS staff might continue to progress alone, is listed under the chapter 3.3 below. For more background information, see also the mission report *12 April - 25 May 2004*.

1.2 *Major progress/achievement duing the mission*

The mission days from 5th to 15th of June were used to work through the system together with the FTS staff, Armando Tsandzane, Mr. Afonso Uate and Mrs. Dionisia Chunguane. During this work the system and the programs has been improved and further developed. The pilot model has now been explained step by step.

Meetings were held on Monday 5th June with Mr. Cirilo Timbe, Mrs. Júlia Cravo, and Mr. Armando. At this meeting the work for the two next weeks were discussed. A next meeting was arranged with the director Mr.Azarias, together with Mrs. Júlia and Mr. Armando Friday 8th June. In addition, a work meeting with demonstration of the system was held on Wednesday 13th June in the afternoon, with the FTS staff and Mrs. Júlia. A summary meeting was arranged on Friday the 15th.

1.3 *Major recommendations*

The FTS staff will have a big job to work with the pilot system, to train how to use it, and to contribute on improvements further on. Final data from all months 2006 has been executed in the system and output files for all 12 months are in place. Even the solution has been made as simple as absolutely possible there are many details, which has to be paid attention to. The FTS staff is not used to work with IT systems and programming, and will probably do many mistakes before work and principles are in a routine.

1.3.1 Actions to be considered by INE, to improve development of the FTS

The following actions should be done by INE , to secure good development of the FTS production system and good working condition for the FTS staff:

1. Since three staff works, one pc is missing, so it is **necessary to install a third PC** in the room (Mrs. Dionisia has no pc).

2. The pilot system must be **installed in a server, not on PCs**. Only proper server with good security and backup system can secure a full-scale and safe system in the future.

3. Since SAS will not purchased by INE, the **FTS staff should use this opportunity to start working to convert the SAS programs into SPSS**. A SPSS programmer should be appointed to assist in this work.

4. Since the FTS staff must start a practise with regular data correction. Therefore, the **FTS staff should have a phone in their room** (at least a phone enabling them to call local). They should be able to ask Customs, but also importers, exporters and brokers.

5. Until now, Customs extract and send data **quarterly**. Since the **FTS is a monthly** statistics, INE should start **negotiating with Customs about a system with monthly data deliveries**. This will increase timeliness up to normal standard internationally, and be a big step ahead for INE. Also a regular publishing calendar would be much easier to establish and maintain. In addition, the FTS staff will get into more regular correcting-work habits.

6. The FTS staff must be encouraged to practise English.

7. There has to be arranged a follow-up agreement with the expert.

1.3.2 Work which the FTS staf are expected to do

The following work will be important for the FTS staff to do and to learn, if the pilot system shall be developed into a daily, functional system:

1. The **3 source catalogues** needs to be thoroughly quality checked: *Regime-CPC*, *Commodity-catalogue* (identical to the Pauta for same data year(s), and the *Country code-catalogue*.

2. All the file descriptions, **CD-data from the Customs, the RAW data extracted from the Customs CD, the INE data and the FTS data** make the *framework* for the data used for FTS. Whenever there is a system change (any variable name, format, sequence change), **a new** (version of) **file description** (and program changes) has to be made. The FTS staff has to learn to keep strict order in this.

3. The FTS staff has to **learn to handle all file treatment**, and all correcting work, precise. This is necessary both for keeping good documentation and to be able to develop the system further.

4. The FTS staff has to remember to **document, mark and code all changes** they do, in such a manner that it is understandable for other colleagues.

5. The FTS staff should train and practise how to demonstrate the system for others. They should be more clever in asking questions, and finding answers by doing without hesitation and waiting.

6. The **main challenge for the FTS staff** is in a first round, not the software issue, but rather a fundamental understanding about what is data processing and what are the principles behind data processing systems. The INE' FTS staff needs to understand the system *FRAMEWORK*, which this pilot base on, and they must follow it strictly.

1.3.3 About the FTS pilot system and the programs in SAS

1. The programs for the **pilot are developed in SAS**. The INE has no access to this software. It is possible for INE and the FTS staff to convert (write) new programs using SPSS instead. However, this might take some time. The SAS programs are available (in the CD) as MS WORD files, with explanations. This makes it possible to understand the content of the programs, and it is possible to re-write them using another software.

2. The **SAS data processing** use all the time only ascii (text) files as both input- and output file format. The SAS is only a 'black-box' tool to enable to do the data checking and the file transformations automatically. The FTS staff converts these files from text-format to EXCEL, and from EXCEL to comma-separated files (SAS input files).

3. The expert might help INE / the FTS staff, with **executing the SAS** programs by a long-distance support agreement, using emails to communicate the data files. In this manner the FTS staff shall first prove that they enable to learn to use the FRAMEWORK, before they proceed with the step to convert SAS programs into another software.

4. When a pilot solution has been tested and been accepted, the Project better find a way to **convert all programs into a proper software**, which the INE has long-term access to, and which the FTS staff will be able to learn over time. Then, the FTS staff can modify and adjust programs on a daily basis, and also support IT specialists / programmers later on, when it comes to more complicated changes in the FTS Production system.

5. IF this pilot system get into stable production, the MZ Customs data is in particular fitting well for ***CIF-FOB calculations*, targeting the Balance of Payment System**, in order to calculate the imports and exports of transport services, and to recalculate CIF imports into FOB imports.

6. It also opens for the very first *calculations of import and export prices*, using a system based on unit-value index calculations, with output files directly aggregated up to the National Accounts CPC-MZ level. These files can be directly utilised in the National Accounts Supply- and Use Table systems and includes prices on all FTS products by weighting so-called Representative products/commodities into substitutes for non-representative products. However, to succeed in this, the system with *Price controls* has to be elaborated further, and price information for *Representative commodities* has to be focused on all the time.

2 INTRODUCTION

Again, my thanks to the friendly FTS staff, who met me with their friendly attitude. Also thanks to Mr Cirilo, Mrs Júlia and Mr. Azarias for good meetings and understanding of the work and their positive mind for finding solutions about proceeding the FTS work.

2.1 The report and writer

The report is written by Mr. Hans Kristian Ostereng. He is senior adviser and for the time being a Project leader for a cooperation project between the Ertitrean National Statistical Office and Statistics Norway.

2.2 Background and earlier missions

A first short-term mission on FTS took place in *November 2001* with support from the Twinning Arrangement *(MOZINE 2001:10)*. The objective of this mission was to review the current production routines and suggest the basic actions for how to improve.
The second short-term mission on FTS took place during *28 April - 9 May 2003*. This mission was to review the status and to give advises about how to proceed.
The third short-term mission took place during *12 April - 25 May 2004* , see MZ:2004:20 Ref. no. 104.Moz.98 June 2004.
A fourth short-term mission took place during *14 - 17 November 2006*.

3 FTS pilot system description in brief

The content of the CD is described in folder/file:
C:\INE\FTS\System_Description\FTS_FILE_Descriptions.xls

The sheet - *FTS-FILE-DESCRIPTION* explains the content of the different folders in this system.

Here you find sheets with files descriptions. The codes in the *error list* are explained. Codes for messages from the **Price control** system are explained. The price control system is based on the Price Master catalogue for imports or exports. The middle price used in this system is the average between mean price, the median price and the Unit-Value price, for each of the commodities, where the price variations has proven acceptable to preset variation criteria.

Data collected by surveys:
Since data delivered from Customs are not complete, the FTS staff collect information from Mozal free zone, both imports and exports. They also set up special reports fro oil products, since Customs do not cover these transactions complete. Also imports / exports of electricity has to be reported in this EXTRA-data. To handle these data operations, two steps are set up. Firstly, Mozal free zone products and oil products has to be identified and extracted (deleted) from the Customs FTS data, since they are not complete. The second operation is to merge (include) the special report (EXTRA-data) the FTS staff make quarterly.
These data, in the manual set-up file has a significant impact on the FTS data, -and in specific on the difference between the **General trade** and the **Special trade** (see tables below).

Data output files
All files from SAS output are in text-format, normally semi-colon separated. These files are easy to read into Excel, where all further treatment is done.

The data output files are the following:
FTS_OK_EXPORT200601jan.txt
This file inclode all data without any error messages or price control warnings. These files should be opened in Excel, but just inspected to briefly find anormalities the controls do not catch up.

FTS_ERRORLIST_IMPORT200601jan.txt
FTS_ERRORLIST_EXPORT200601jan.txt
These files includes all items the FTS staff shall check, and eventually correct. The error-messages are in columns to the left. **Red color** means uncorrected. We agreed to mark all cells (data cell and error messages) **blue**, when corrections or approvals are made. When a file is ready, all red errormarks are blue. Imports are exports are corrected in separated files.

regcpc_INVALID200601jan.txt
This file encludes regime-CPC codes in Customs data, which are not found in the ***CPC-definition catalogue***. This file must be checked in following manner. Find out if invalid codes might be reg-cpc codes, which are in fact valid, but do not (by mistake) exist in the . In this case, a confirmation has to be obtained from Customs,

and the ned code(s) included in the catalogue. In other cases, data data from Customs are valid items, but the codes are mis-spelled and Customs let them pass.

CustomsDELETE200601jan.txt
This file are the data excluded (by SAS program-1 selections). The data has to be checked, and compared with the EXTRA-data, which the FTS staff has made as a substitute. The SAS program produce control-tables over both deleted data and the ezxtra data.

notFTS_200601jan.txt
Based on the ***CPC-definition catalogue*** the items, which per definition are not FTS data, are written to this file. The file need to be checked to ensure that items here seems to be correctly not FTS, and not excluded by a mistake.

Check the content of the Reg-CPC-definition Table.

The FTS staff has to check and correct the Reg-CPC-definition Table, which is the basis for later extractions, to publish either the General trade system or the Special trade system.[1] It will take some training/practice to get familiar with the interpretation of all the different movements of the goods. For help in this matters INE may contact the staff at Customs DPAV (Department of Tariff and Valuation).

Table output

All months for 2006 were processed in the pilot system under the mission. Also first quarter 2007 has been processed, but not completely, since the EXTRA-data file was not ready.

There are ready tables for **Press release**, imports and exports by SITC nomenclature (examples, see annex ….).

The tables below are made to illustrate how extremely important it is to compile **both** *General trade* system and *Special trade* system where warehousing and free zone activities are excluded. **In Mozambique, the *General trade*, where warehouse and free zones are included, should be the official definition for FTS.** However, since this information do not show the imports and export of goods into free circulation (and with duty paid), parallel tables for *Special trade* should always be produced and published too.

From the preliminary data (error-lists are not corrected), we see that general trade counts for nearly double as much as special trade (100 billion MZM, contra 52 billion for special trade).

[1] **General trade**: input/output for warehouses/free zones are included in the trade statistics. **Special trade**: Imports is only goods into free circulation or industrial free zones, exports only directly from free circulation or from industrial free zones.

Imports to Mozambique. **General** trade. Months. 2006

flow	YEAR	month	Value	Share %
I	2006	01	5 942 295 185	5,89
I	2006	02	5 923 371 920	5,87
I	2006	03	10 546 935 680	10,46
	Sum 1st quarter		**22 412 602 785**	**22,25**
I	2006	04	7 379 122 045	7,32
I	2006	05	11 957 886 145	11,86
I	2006	06	7 633 380 158	7,57
	Sum 2nd quarter		**26 970 388 348**	**26,77**
I	2006	07	8 826 823 920	8,76
I	2006	08	9 771 120 193	9,69
I	2006	09	6 799 919 660	6,74
	Sum 3rd quarter		**25 397 863 773**	**25,21**
I	2006	10	9 194 285 407	9,12
I	2006	11	9 608 790 543	9,53
I	2006	12	7 157 116 873	7,10
	Sum 4th quarter		**25 960 192 823**	**25,77**
	Total, year		**100 741 047 729**	**100,00**

Imports to Mozambique. **Special** trade. Months. 2006

flow	YEAR	month	Value	Share %
I	2006	01	3 314 701 755	6,31
I	2006	02	3 207 796 721	6,10
I	2006	03	4 827 899 747	9,19
	Sum 1st quarter		**11 350 398 223**	**21,61**
I	2006	04	4 051 721 137	7,71
I	2006	05	6 036 731 798	11,49
I	2006	06	4 705 335 953	8,95
	Sum 1st quarter		**14 793 788 888**	**28,16**
I	2006	07	4 354 825 344	8,29
I	2006	08	5 520 740 636	10,50
I	2006	09	3 963 592 855	7,54
	Sum 1st quarter		**13 839 158 835**	**26,35**
I	2006	10	4 531 096 553	8,62
I	2006	11	3 680 601 671	7,00
I	2006	12	4 335 051 114	8,25
	Sum 1st quarter		**12 546 749 338**	**23,88**
	Total, year		**52 530 095 284**	**100,00**

Commodities over 1 % share of total imports. 2006

Imports to Mozambique. **General** trade. Main commodities. 2006

flow	year	comno	value	Share %	
I	**Total**		**100 741 047 729**	**100,00**	
I	**2006**	27101939	19 262 557 048	19,12	1
I	**2006**	99999999	14 159 570 363	14,06	2
I	**2006**	27101139	6 160 892 457	6,12	3
I	**2006**	76011000	5 145 663 832	5,11	4
I	**2006**	27101921	4 069 131 307	4,04	5
I	**2006**	10063000	2 272 190 279	2,26	6
I	**2006**	27160000	2 099 503 950	2,08	7
I	**2006**	15111000	1 927 820 301	1,91	8
I	**2006**	27131200	1 507 860 953	1,50	9
I	**2006**	10019090	1 418 154 180	1,41	10
I	**2006**	27101999	1 358 662 509	1,35	11

Imports to Mozambique. **Special** trade. Main commodities. 2006

flow	year	comno	value	Share %	
I	**Total**		**52 530 095 284**	**100,00**	
I	**2006**	27101939	6 522 629 801	12,42	1
I	**2006**	27160000	2 099 503 950	4,00	2
I	**2006**	10063000	1 969 173 394	3,75	3
I	**2006**	15111000	1 924 108 088	3,66	4
I	**2006**	27101921	1 475 355 480	2,81	5
I	**2006**	27101139	1 434 011 085	2,73	6
I	**2006**	10019090	1 402 035 730	2,67	7
I	**2006**	84711000	910 168 638	1,73	8
I	**2006**	87042190	743 813 441	1,42	9
I	**2006**	30049000	718 937 133	1,37	10
I	**2006**	03037910	703 176 333	1,34	11
I	**2006**	25231000	687 678 945	1,31	12
I	**2006**	87042110	627 309 701	1,19	13

Countries over 1 % share of total imports. 2006

Imports to Mozambique. **General** trade. Main countries. 2006

flow	year	Country	Value	Share %	
I	**Total**		**100 741 047 729**	**100,00**	
I	**2006**	**ZA**	44 917 857 706	44,58	1
I	**2006**	**NL**	11 025 612 161	10,94	2
I	**2006**	**CH**	4 847 375 177	4,81	3
I	**2006**	**IN**	3 890 100 826	3,86	4
I	**2006**	**AE**	3 745 303 358	3,71	5
I	**2006**	**AU**	2 731 804 340	2,71	6
I	**2006**	**US**	2 575 888 559	2,55	7
I	**2006**	**PT**	2 092 331 590	2,07	8
I	**2006**	**XX**	1 965 028 502	1,95	9
I	**2006**	**CN**	1 939 873 393	1,92	10
I	**2006**	**JP**	1 722 598 426	1,70	11
I	**2006**	**DE**	1 499 789 853	1,48	14
I	**2006**	**BH**	1 353 041 153	1,34	15
I	**2006**	**KW**	1 085 350 107	1,07	16
I	**2006**	**TR**	1 052 234 040	1,04	17
I	**2006**	**PK**	1 043 167 389	1,03	18

Imports to Mozambique. **Special** trade. Main countries. 2006

flow	year	comno	value	Share %	
I	**Total**		**52 530 095 284**	**100,00**	
I	**2006**	**ZA**	20 802 016 957	39,60	1
I	**2006**	**IN**	3 169 227 656	6,03	2
I	**2006**	**AE**	2 715 555 151	5,16	3
I	**2006**	**US**	2 130 867 314	4,05	4
I	**2006**	**PT**	2 053 382 999	3,90	5
I	**2006**	**CN**	1 895 609 617	3,60	6
I	**2006**	**DE**	1 431 538 891	2,72	7
I	**2006**	**JP**	1 279 538 426	2,43	8
I	**2006**	**BH**	1 267 561 346	2,41	9
I	**2006**	**TR**	1 040 807 902	1,98	10
I	**2006**	**PK**	989 398 707	1,88	11
I	**2006**	**AU**	976 881 559	1,85	12
I	**2006**	**SA**	930 064 879	1,77	13
I	**2006**	**XX**	834 875 476	1,58	14
I	**2006**	**TH**	744 571 063	1,41	15
I	**2006**	**BE**	726 450 576	1,38	16
I	**2006**	**SG**	708 913 286	1,34	17
I	**2006**	**BR**	668 397 208	1,27	18
I	**2006**	**ES**	622 816 975	1,18	19
I	**2006**	**ID**	578 653 578	1,10	20

Both for the main commodities, and for the main trading partners (country of origin), we see that the products and also countries differ, when comparing *general trade* and *special trade*. The reason for this is that for *special trade* (goods in free circulation), the *special trade* is more diverse. Warehouse and free zone activities, tend to concentrate on fewer products are trading partners.

For trade negotiations it is also important to have available tables according to both definitions. In many cases the tables showing *special trade* will be more useful that the tables compiled after the *general trade* principle.

4 APPENDIX 1. Persons met

Among others the following persons was met during this mission:

FTS staff: Armando Tsandzane, Mr. Afonso Uate and Mrs. Dionisia Chunguane

5 APPENDIX 2. Terms of Reference

See mission report from November 2006. The ToR is the same, since this mission is a direct continuation of the previous mission.

6 APPENDIX 3. Pilot solution: The folder system used for FTS

The FOLDER system in use for the FTS production routine

C:\INE\FTS\cat

All catalogues needed by the system: Commodity (Pauta),
Country catalogue, Regime-CPC-catalogue
PRICEMASTER for imports and exports — Used by:

Files name types:
- Reg-CPC_200001_999912_ver01.xls — **SAS prog 1**
- Com_cat_999912.sdv — **SAS prog 2**
- Country_cat_200101_999912.xls — **SAS prog 2**
- pricemasterimport2006.xls — **SAS prog 2**
- pricemasterexport2006.xls — **SAS prog 2**

C:\INE\FTS\data

C:\INE\FTS\data\Customs

Data from Customs....Quarterly on CD
CustomsCD2006Q1_4version01 (standard nameing)

C:\INE\FTS\data\RAW

Data collected directly from importers and exporters
EXTRACTIONS of Customs data: File-format named RAW-data

Files name types:
- 2006jan.xls — **EXCEL format**
- EXTRA_IMP_EXP_jan_dec2006.xls — **Data ADDED manually to FTS**

C:\INE\FTS\data\INE

Data out from the SAS prog1: File-format named INE-data

Files name types:
- 2006jan.sdv — Semicolon-separated format (excel) .sdv
- EXTRA_IMP_EXP_jan_dec2006.sdv

C:\INE\FTS\outFTS

Data out from the SAS prog2: File-format named FTS-data

Files name types:
- FTS_OK_EXPORT200601jan.txt — **SAS prog 2**
- FTS_ERRORLIST_IMPORT200601jan.txt — **SAS prog 2**
- FTS_ERRORLIST_EXPORT200601jan.txt — **SAS prog 2**
- regcpc_INVALID200601jan.txt — **SAS prog 1**
- TABLE_01B_months_import2006GEN-SPES.xls — Other SAS progs
- + many more tables

C:\INE\FTS\outNOTFTS

Data out from the SAS prog1: File-format named INE-data

Files name types:
- CustomsDELETE200601jan.txt — **SAS prog 1**
- notFTS_200601jan.txt — **SAS prog 1**

C:\INE\FTS\prog

ALL SAS programs used for the FTS routine

Files name types:
- 01_INE-EXTRA-data_intoSAS.sas
- 02_INEdata_intoSAS_recode_check_DELETE_ADD.sas
- 03_FTS_IMP_PRICE_validity_control.sas
- 11-13 SAS programs converting catalogues into SAS
- 21-22 SAS Programs producing the PRICE mASTERS, imports and exports
- 91 --> SAS table programs

7 APPENDIX 4. FTS data - File description including error list

DATA OUTPUT from SAS prog2

file C:\INE\FTS\outFTS\FTS_**ERRORLIST_&period**..txt

Variable name	Origination of this variable	Comment
e1 - ERROR list	New variable created in SAS prog1	SEE list over codes, bottom - sheet: FTS-FILE-DESCRIPTION
e2	New variable created in SAS prog1	SEE list over codes, bottom - sheet: FTS-FILE-DESCRIPTION
e3	New variable created in SAS prog2	SEE list over codes, bottom - sheet: FTS-FILE-DESCRIPTION
e4	New variable created in SAS prog2	SEE list over codes, bottom - sheet: FTS-FILE-DESCRIPTION
e5	New variable created in SAS prog2	SEE list over codes, bottom - sheet: FTS-FILE-DESCRIPTION
e6	New variable created in SAS prog2	SEE list over codes, bottom - sheet: FTS-FILE-DESCRIPTION
e7	New variable created in SAS prog2	SEE list over codes, bottom - sheet: FTS-FILE-DESCRIPTION
e8	New variable created in SAS prog2	SEE list over codes, bottom - sheet: FTS-FILE-DESCRIPTION
flow	**REG-CPC_catalogue**	I = Imports, E = exports
year	New variable created in SAS prog1	-
month	New variable created in SAS prog1	-
borderoffice	**Customs-data**	NO catalogue in use, yet
ref	**Customs-data**	ID of Customs declaration
customscpc	**Customs-data**	Combined: Reg||CPC -as it is in Customs data
trade	**REG-CPC_catalogue**	G=General trade, S=Special, B=both, 0= not FTS
action	**REG-CPC_catalogue**	T= Transit, P= Processing, R= Repair
comno	**Customs-data**	Shall ALLWAYS be identical to PAUTA tariff lines
country	New variable created in SAS prog1	Import = ORIGINATION, Export = DESTINATION
unit	**Customs-data**	-
punit	**Commodity_catalogue**	Compare Pauta-unit with data-unit
weight	**Customs-data**	IF pricemaster - USE middle_price to IMPOUTE new weight
quantity	**Customs-data**	IF pricemaster - USE middle_price to IMPOUTE new quantity
value	New variable created in SAS prog1	Import = CIF-value, Export = FOB-value
itemno	**Customs-data**	Sequential number within SAME Customs declaration
		-

valfob	**Customs-data**	-
freight	**Customs-data**	-
insurance	**Customs-data**	-
othercosts	**Customs-data**	-
valcifme	**Customs-data**	-
tr_code	**Customs-data**	-
tr_country	**Customs-data**	-
delterm	**Customs-data**	-
currency	**Customs-data**	-
exrate	**Customs-data**	-
		-
exportername	**Customs-data**	-
importercode	**Customs-data**	-
importername	**Customs-data**	-
c_country	**Customs-data**	-
o_country	**Customs-data**	-
d_country	**Customs-data**	-
pricerepair	New variable created in SAS prog 2	* See below
pricewarning	New variable created in SAS prog 2	* See below
item_price	New variable created in SAS prog 2	= value / quantity
middle_price	**PRICE master catalogue**	=(Unit-Value_price + aritmetic-MEAN_price + Median_price) / 3
quantityIold	New variable created in SAS prog 2	**Customs-data**
weightold	New variable created in SAS prog 2	**Customs-data**
Mztarifftext	**Commodity_catalogue**	Pauta line, text

pricerepair *	<P = Quanity has been reålaced by using the Middle_prive OK = For this commodity number, the PRICE master has a middle_price no = means that this commodity number, the PRICE master has **NO** middle_price
pricewarning *	V> = Item_price **HIGHER** than upper calculated price limit (in top of SAS prog 2) VL = Item_price **LOWER** than lower calculated price limit (in top of SAS prog 2) V>no Mean that the item value is over the universal value-limit, AND comno has NO middle_price

Example from FTS file descriptions, see CD, folder : C:\INE\FTS\System_Description

e1	e2	e3	e4	e5	e6	e7	e8	flow	year	month	borderoffice	ref	customscpc	comno	country
--	--	PH	--	--	--	--	--	E	2006	01	07SE1	155283	E401	**52010000**	CH
--	--	--	PL	--	--	--	--	E	2006	01	07SE1	155189	E401	**03061300**	ZA
--	ME	--	--	--	--	--	Cw	E	2006	01	10TI3	472749	E401	**03061400**	ZZ
--	MI	--	--	--	--	--	Cw	I	2006	01	10DA3	862441	**E401**	**40111000**	**ZA**
--	--	--	--	Un	--	--	--	I	2006	01	10DA1	27818	A199	**31039000**	ZA
--	--	--	--	--	--	--	Cw	I	2006	01	10TI8	209610	A101	**87042200**	XX
--	--	--	--	--	--	C?	--	I	2006	01	10TI2	827558	A101	**87089300**	NO

TYPES of error/warning messages:

CP

V1

V2

MI

ME

PH

PL

SAS prog1:

CustomsCPC (regime-cpc) is NOT found in the Reg-CPC catalogue

See file: C:\INE\FTS\outFTS\regcpc_INVALID200601jan.xls

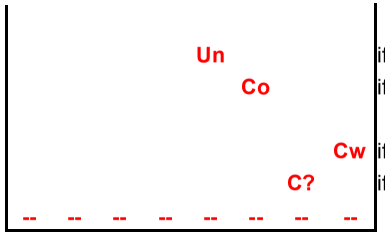
```
if valcifmehelp > 1.1 * cifvalue or valcifmehelp < 0.9 * cifvalue then e1 = 'V1';
if fobvalue > cifvalue   then e2 = 'V2';
If flow = 'I' and country = 'MZ'  then e2 = 'MI' ;
If flow = 'E' and country = 'MZ'  then e2 = 'ME' ;
```

```
if flow = 'I' then value = cifvalue;    if flow = 'I' then country = o_country ;
if flow = 'E' then value = fobvalue;    if flow = 'E' then country = d_country ;
If flow = 'I' and country = 'MZ'                then country = 'ZZ';
If flow = 'E' and country = 'MZ'                then country = 'ZZ';
```

SAS prog2:

```
%let valuelimit   = 199999 ; * All item values over this limit will be given 'pricewarning 'V>' *****;
%let upperpfactor = 6.5 ; * factor used to widen/calculate the upper price limt * **---CHECK---;
%let lowerpfactor = 2.5 ; * factor used to widen/calculate the lower price limt * **---CHECK---;
                item_price = value / quantity
                ;
            upperpricelimit    = middle_price * &upperpfactor ;
            lowerpricelimit    = middle_price / &lowerpfactor ;
          if item_price > upperpricelimit then e3 = 'PH' ;
          if item_price < lowerpricelimit then e4 = 'PL' ;
```

	Middle_price is read from the PRICEMASTER file					uv_price		med_price
unit P/S T	comno	quantity	value	no_items	middle_price		mean_price	
	01051190	1 424 157	17 279 369	136	**12,37**	12,13	**13,20**	11,77



if unit NE punit then e5 = 'Un'; /* **Data unit NOT equal to Tariff UNIT** */
if a and not b then e6 = 'Co'; /* **INVALID Tariff line / commodity number** not in Tar*/

if a and not b then e8 = 'Cw'; /* **country code Wrong = invalid, not in Cat*/**
if checkcountry in ('C') then e7 = 'C?'; /* **CHECK this country - Code for checking!! */**
NO errors or WARNINGS

8 App 5. FTS Press release table. Example (figures just for illustration)

Foreign Trade Statistics

Imports and Exports by Quarters and Months. 2003 - 2004. Billion

Flow and Period	2006	2007	% Change 2006/2007
Imports, total	7034,32	7525,57	7
Exports, total	2034,12	2487,23	17
Exports in % of imports .	22	29.	
Imports, quarter 1	1623,86	1804,78	11
Imports, quarter 2	1621,35	1476,82	-9
Imports, quarter 3	1662,92	2099,39	26
Imports, quarter 4	2126,18	2144,57	1
Exports, quarter 1	71,97	46,8	-35
Exports, quarter 2	41,75	49,21	18
Exports, quarter 3	16,11	14,47	-10
Exports, quarter 4	18,74	63	236
Imports, January	793,65	800,86	1
Imports, February	354,02	554,22	57
Imports, March	476,19	449,7	-6
Imports, April	772,39	312,84	-59
Imports, May	513,22	663,64	29
Imports, June	335,75	500,34	49
Imports, July	913,25	750,42	-18
Imports, August	340,26	470,23	38
Imports, September	409,4	878,74	115
Imports, October	1107,08	512,78	-54
Imports, November	520,44	643,3	24
Imports, December	498,67	988,49	98
Exports, January	13,97	16,13	15
Exports, February	13,42	29,5	120
Exports, March	44,57	1,16	-97
Exports, April	12,51	5,1	-59
Exports, May	18,45	21,49	16
Exports, June	10,79	22,61	110
Exports, July	4,86	6,92	42
Exports, August	7,19	5,02	-30
Exports, September	4,06	2,53	-38
Exports, October	5,47	17,54	221
Exports, November	9,94	21,8	119
Exports, December	3,32	23,66	612

9 APPENDIX 6. Pilot solution: SITC table. Example (figures just for illustration)

Foreign Trade Statistics. Special trade statistics

Imports by Sections and Divisions, SITC. 2006 - 2007. Million

SITC Rev.3	4th quarter 2006	4th quarter 2007	1th quarter - 4th quarter 2006	1th quarter - 4th quarter 2007	% Change 2006/2007	% Share 2007
GRAND TOTAL	2 126	2 145	7 034	7 526	7	100
0 Food and live animals	**764**	**696**	**2 407**	**1 740**	**-28**	**23**
00 Live animals other than animals of division 03	1	4	8	7	-9	0
01 Meat and meat preparations	1	1	4	4	-11	0
02 Dairy products and birds' eggs	18	5	41	23	-43	0
03 Fish (not mar. mammals), crustaceans, molluscs	4	1	11	17	50	0
04 Cereals and cereal preparations	494	436	1 526	949	-38	13
05 Vegetables and fruit	97	50	235	217	-8	3
06 Sugars, sugar prepatations and honey	74	149	361	309	-14	4
07 Coffee, tea, cocoa, spices and manufactures the	49	28	119	101	-15	1
08 Feeding stuff of animals (not including unmille	1	4	12	6	-46	0
09 Miscellaneous edible products and preparations	25	19	90	105	17	1
1 Beverages and tobacco	**7**	**2**	**31**	**28**	**-10**	**0**
11 Beverages	3	2	15	15	-3	0
12 Tobacco and tobacco manufactures	4	0	16	13	-17	0
2 Crude materials, inedible, except fuels	**17**	**19**	**67**	**48**	**-28**	**1**
21 Hides, skins and furskins, raw	0	0	0	0	-98	0
22 Oil seeds and oleaginous fruits	1	0	6	4	-38	0
23 Crude rubber (including synthetic and reclaimed	5	0	5	0	-92	0
24 Wood, lumber and cork	7	11	33	20	-40	0
25 Pulp and waste paper	0	0	0	0	-82	0
26 Textile fibres and their waste	0	2	6	11	67	0
27 Crude fertilizers and crude minerales, n.e.s.	1	4	5	7	25	0
28 Metalliferous ores and metal scrap	0	0	2	1	-51	0
29 Crude animal and vegetable materials, n.e.s.	3	1	9	6	-34	0

3 Mineral fuels, lubricants and related materials	**306**	**387**	**1 166**	**1 704**	**46**	**23**
32 Coal, coke and briquettes	0	9	0	9	15358	0
33 Petroleum, petroleum products and related mater	300	361	1 141	1 647	44	22
34 Gas, natural and manufactured	6	17	25	48	87	1
4 Animal and vegetable oils, fats and waxes	**65**	**44**	**268**	**232**	**-14**	**3**
41 Animal oils and fats	0	0	0	1	564	0
42 Fixed vegetable fats and oils, crude, refined o	63	29	263	183	-31	2
43 Animal or vegetable fats and oils, processed- w	2	15	5	48	898	1
5 Chemicals and related products, n.e.s.	**87**	**107**	**359**	**404**	**12**	**5**
51 Organic chemicals	5	11	30	26	-13	0
52 Inorganic chemicals	12	19	40	47	16	1
53 Dyeing, tanning and colouring materials	12	3	38	18	-54	0
54 Medicinal and pharmaceutical products	26	20	105	163	55	2
55 Essential oils and resinoids and perfume materi	9	17	43	47	9	1
56 Fertilizers (other than those of group 272)	0	1	15	2	-89	0
57 Plastics in primary forms	6	7	25	21	-16	0
58 Plastics in non-primary forms	9	12	28	39	41	1
59 Chemical materials and products, n.e.s.	8	16	35	42	20	1
6 Manufactured goods classified chiefly by materi	**242**	**340**	**848**	**1 124**	**33**	**15**
61 Leather, leather manufactures, n.e.s. and dress	0	0	0	1	96	0
62 Rubber manufactures, n.e.s.	25	40	104	107	3	1
63 Cork and wood manufactures (excluding furniture	16	26	62	72	15	1
64 Paper, paperboard and manufactures there of	32	22	87	87	0	1
65 Textile yarn, fabrics, made-up articles and rel	23	32	87	144	66	2
66 Non-metallic mineral manufactures, n.e.s.	34	66	148	197	33	3
67 Iron and steel	52	78	141	245	74	3
68 Non-ferrous metals	14	18	45	57	26	1
69 Manufactures of metals, n.e.s.	46	59	174	215	24	3
7 Machinery and transport equipment	**366**	**374**	**1 338**	**1 633**	**22**	**22**
71 Power generating machinery and equipment	12	22	58	110	91	1
72 Machinery specialized for particular industries	74	63	333	282	-15	4
73 Metal working machinery	10	7	25	87	250	1
74 General industrial machinery and equiipment, n.	44	34	163	145	-11	2
75 Office machines and automatic data processing m	25	19	71	194	174	3
76 Telecommunications and sound recording and repr	40	45	105	182	73	2
77 Electrical machinery, apparatus and appliances,	35	54	126	159	27	2

78 Road vehicles (including air-cushion vehicles)	119	130	433	444	3	6
79 Other transport equipment including ships	8	2	25	30	20	0
8 Miscellaneous manufactured articles	**272**	**175**	**551**	**613**	**11**	**8**
81 prefabricated buildings- sanitary plumbing, hea	31	16	44	53	20	1
82 Furniture and parts thereof	7	13	24	46	96	1
83 Travel goods, handbags and similar containers	1	2	4	9	126	0
84 Articles of apparel and clothing accessories	26	38	118	144	23	2
85 Footwear	11	16	34	63	85	1
87 Professional, scientific and controlling instru	141	19	182	80	-56	1
88 Photographic app., equipment and supplies and o	7	10	22	31	37	0
89 Miscellaneous manufactured articles, n.e.s.	49	63	124	186	51	2
9 Commodities and transactions, not classified el	**0**	**0**	**0**	**0**	**17**	**0**
98 Unknown SITC	0	0	0	0	17	0

10 end