



UNITED NATIONS  
DEPARTMENT OF ECONOMIC AND SOCIAL AFFAIRS  
STATISTICS DIVISION



UNITED NATIONS  
ECONOMIC COMMISSION FOR AFRICA  
AFRICAN CENTRE FOR STATISTICS

**International Workshop on Country Practices in Compilation of  
International Merchandise Trade Statistics,  
12-16 November 2007, Addis Ababa**

## Workshop Report

# International Workshop on Country Practices in Compilation of International Merchandise Trade Statistics

*12-16 November 2007, Addis Ababa*

*Organized by UNDESA/ Statistics Division  
in cooperation with UNECA/ African Centre for Statistics*

## **Opening**

The workshop was opened by Mr. Dimitri Sanga, Deputy Director of the African Centre of Statistics (ACS) of UNECA. He welcomed the participants, explained and described the increased activities of UNECA in the field of statistics since the creation of ACS in 2006, highlighted the intensified cooperation between the UN Statistics Division (UNSD) and UNECA in the last year and outlined the purpose and importance of the current workshop for increasing the quality of the international merchandise trade statistics (IMTS) in Africa. A total of 25 national experts of 21 countries and 7 resource persons participated in the workshop. Annex 1 shows the Agenda of the workshop, whereas Annex 2 shows the list of participants attached. To complete the annexes, Annex 3 gives an exact description of the recommendations of this workshop, whereas Annex 4 gives a detailed view on the calculation of external trade indices as presented by CSO Mauritius.

## **Election of the Bureau**

UNECA proposed the following Bureau.

Chair - Mr. Muzi Dube of Swaziland  
Vice Chair - Mr. Jimmy Rajaobelina of Madagascar  
Rapporteur - Mr. William Etwasi of Kenya

The proposal of UNECA was unanimously approved.

## **Purpose and Organization**

The purpose of the workshop was on the one hand clarification of the existing recommendations of International Merchandise Trade Statistics (IMTS) and on the other hand exploration of new recommendations for the 2010 revision of the manual. Some specific topics for discussion were (a) goods for processing, (b) customs procedures and general trade system, (c) valuation of imports, and (d) calculation of foreign trade indices.

To clarify the broader scope of statistical capacity building in this area, UNSD, UNECA and COMESA presented their respective activities in the field of IMTS followed by an in-depth overview of UNSD of the recently completed National Compilation and Dissemination Practices questionnaire which collected answers from all UN member states on the application of the UN recommendations for IMTS.

## Data sources

After a short introduction by UNSD on the recommendations regarding Institutional Arrangements, Zimbabwe explained how its NSO has a service level agreement with Customs (the Zimbabwean Revenue Authority – ZIMRA). NSO also receives additional data from other agencies, but does not have agreements with those. NSO underlined that insufficient use is made of Eurotrace in validation of data due to lack of knowledge of this software. CSO Swaziland gave a succinct overview of its cooperation with Customs and the Central Bank and outlined some problems. So far, NSO has a unit working on trade statistics inside the Customs administration, but this unit will unfortunately be phased out. CSO Swaziland gave possible solutions for its problems, namely (i) bridge divide between NSO & Customs; (ii) improve validation through surveys; (iii) improve on data archiving; (iv) fully implement new Eurotrace and (v) complement high staff turnover. The NSO of Ethiopia concluded this section with an oral report on its cooperation with Customs.

Customs Israel explained how it uses risk analysis in the checking of customs documents; in this way, only 10% of the shipments are actually inspected. A new Israeli trade system is planned for 4<sup>th</sup> quarter 2008. This will connect the traders' community to the Customs system along with new internal procedures and policies. Paperless procedures and use of electronic signature are introduced. The COMESA secretariat gave an overview regarding the implementation of ASYCUDA ++. Nine countries are using it for facilitating merchandise trade as well as providing national and regional trade statistics. These are Burundi, Ethiopia, Malawi, Rwanda, Sudan, Madagascar, Uganda, Zambia and Zimbabwe. Another five countries are implementing it and are at various stages of implementation. These are Unions des Comores, Kantaga Province of DR Congo, State of Eritrea, Republic of Seychelles and Kingdom of Swaziland.

Statistics Madagascar and Statistics Sudan explained their country practices with respect to data validation. In Madagascar currently two version of ASYCUDA are used by Customs: ASYCUDA 2.7 and ASYCUDA ++, which means that two sets of validation procedures are used as well. Statistics Madagascar is able to produce trade statistics according to the Special Trade System and according to the General Trade System. They also convert data from the HS classification, in which data are reported, to various different classifications, such as SITC. The Central Bureau of Statistics of Sudan receives monthly declaration files from Customs and transfers these into the Eurotrace System. CBS checks for validation of: (1) customs procedure codes (CPC); (2) commodity nomenclature; (3) country nomenclature; (4) valuation; (5) quantity units; and (6) quantity measurement. Identification of re-exports is established by screening the exports data for products that are not manufactured in Sudan.

The COMESA secretariat gave an update on the installation of Eurotrace at NSOs and Customs Offices of most COMESA member states. The current version of Eurotrace is of December 2006. Eurostat has created some on-line support groups for this software and will maintain it for at least one more year.

In the general discussion the point was made that (1) more education is needed to explain the different roles of Customs and the NSO in the application of Eurotrace, and (2) more guarantee is necessary from the side of Eurostat on continuity of support.

## **Application of methodological concepts**

UNSD gave an overview of the ongoing revision processes (see further on in this Report) in related statistical areas and on the conceptual differences between IMTS and General Merchandise BOP, which got more attention now due to the stricter application of the change of ownership principle by BOP. Specifically, goods sent abroad for processing without change of ownership is recommended by BOP to be excluded from trade in goods and that the processing fee be included in trade in services.

### **Goods for processing**

Turkey gave details on the way it can identify goods for processing. First, it uses the following customs procedure codes:

- 1) Release for free Circulation (Importation)
- 2) Transit
- 3) Customs Warehousing
- 4) Inward Processing**
- 5) Processing under customs control
- 6) Temporary Admission
- 7) Outward Processing**
- 8) Export

The inward processing procedure makes it possible to import goods temporarily so that they can be processed (assembling, manufacturing, transforming) or repair) and then to export the resulting compensating products, while benefiting from an exemption from import duties or taxes which would be carried out under the trade policy normally applicable to imported goods.

The aim of the inward processing regime is to enable exporters to supply raw materials, intermediate unfinished goods for the production of their exports without being subject to customs duties, including VAT. The customs duties or other relevant charges are not applied when the goods are exported to a third country. Goods that are not to be evaluated in accordance with this regime are animals, fishes, goods causing environmental pollution.

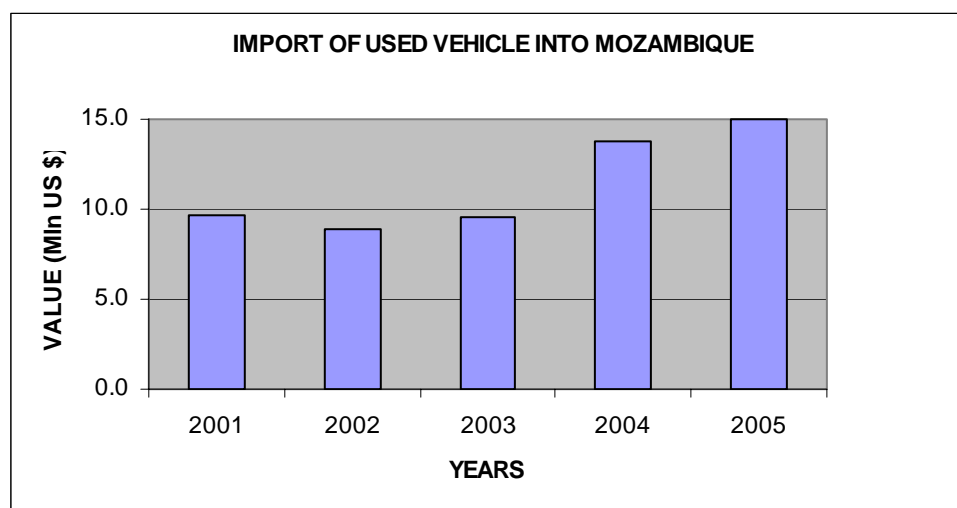
Outward processing makes it possible to export goods temporarily for processing and to import the compensating products with a full or partial exemption from duties and levies. Problems that arise with goods for processing are (i) that the statistical value is not always the gross value, (ii) that errors are made in the nature of transaction codes, and (iii) that change of ownership of the goods cannot be recorded.

### **Special topics – used cars**

Mozambique reported on trade in used vehicles. A special study was done to estimate the amount of used vehicles that was imported. First of all, vehicles were classified new or used, where a vehicle was considered new when it still had its first owner. New vehicles are not subjected to inspection for country of origin.

By contrast, used vehicles are subject to such inspection. The value of the used vehicle is determined based on (a) number of kilometers traveled; (b) year of manufacture; and (c) condition of the vehicle.

Usually the evaluation of the used vehicles are made in the country of origin by the company ITS (Inter-tech Testing Service), even though there are some cases where they are evaluated in Mozambique by ITS. In these cases the importer pays a fee of 10% of the vehicle's value.



### **Special topics - informal cross border trade**

Uganda reported on Informal Cross Border Trade. The trade sector was liberalized in the mid-nineties, allowing the participation of both informal and formal traders in international trade. Liberalization meant that (i) the monopoly of commodity marketing boards was broken and (ii) that export duties were abolished. The liberalized environment led to increased activities of informal cross border trade whose magnitude and contribution to overall international merchandise trade statistics remained unknown

Informally traded goods were not recorded, hence leading to underestimation of economic statistics like International Merchandise Trade Statistics, BOP and GDP estimation. Three surveys have been conducted since 2003 to try to bridge this data gaps. The survey was done by enumeration of most border points during two weeks every month. This direct observation method could not estimate accurately the quantities of assorted goods.

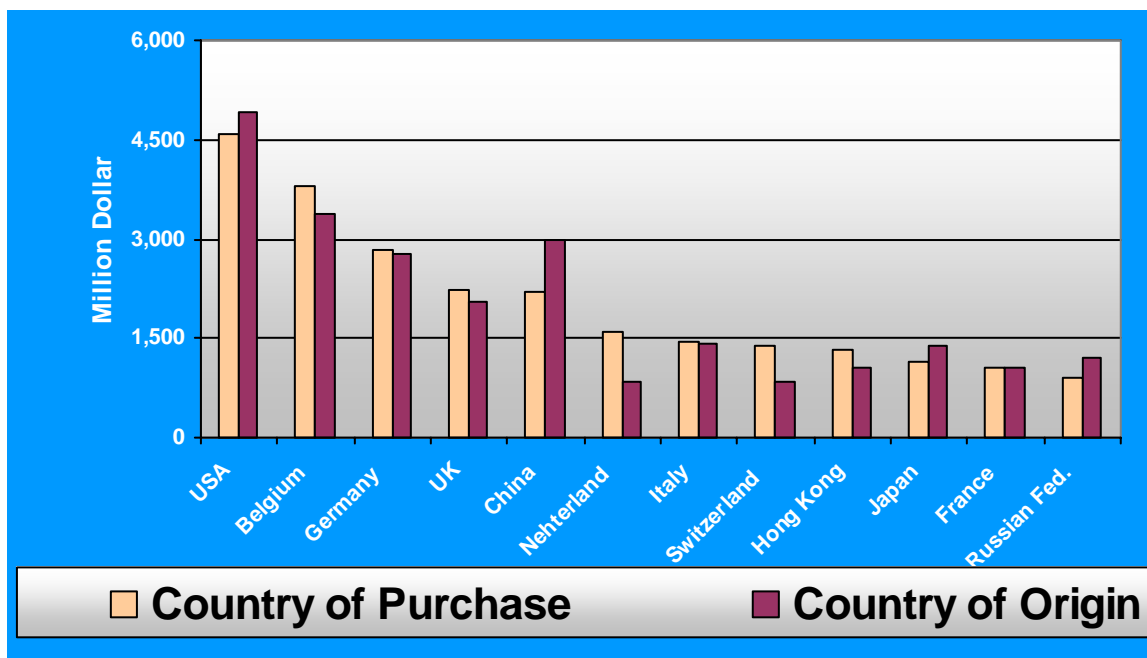
To integrate the data obtained from the informal cross border trade, commodities were coded into HS 2002 nomenclature and ICBT data were then merged with customs data into one file of IMTS. Findings are reported in the ICBT Survey report and the Statistical Abstract 2007. Detailed data will be published in External trade Statistics after completion of coding.

**Partner country**

Israel made a presentation on Country of Origin for imports. Country of origin provides the advantage of the direct trade relationship between the producing country and the importing country. It is further important for trade policy and negotiations, administering import quotas, differential tariffs depending on partner country and economic analysis.

The problem in Israel with the handling of data is that the pre-processing of customs declaration into trade statistics is done by an outside company. This causes that the NSO of Israel has to take the prepared data as is with no flexibility, no direct access to crude data and with predefined content of data retrieval. Regarding country of origin the NSO receives monthly data with no further updates; for country of purchase it receives monthly and yearly data with updates.

The following graph compares total import value by country of origin and country of purchase.



## **Trade System**

Zambia gave an overview of the definition of the trade systems (General, Special strict and Special relaxed). It further described how customs procedure codes relate to trade flows and to how these are included or excluded from trade statistics depending on the trade system.

Thereafter it discussed limitations of the trade systems. For the General Trade System (i) the difference between international transit/ transshipment and customs warehousing might be irrelevant from an economic point of view, and (ii) data collection problems may occur for warehousing and free zones.

Limitations of the Special Trade System are (i) reduced coverage of IMTS, (ii) exclusion of Inward Processing and Outward Processing Customs procedures, which from an economic point of view are similar to ordinary processing operations and (iii) the implementation of the relaxed definition might be difficult when commercial and geographical free zones are not geographically delineated.

Lesotho uses the General Trade System. Customs Lesotho is not computerized yet. However, initiatives have started and the automation process is at its implementation stage. The system which will be adopted is the South African Revenue Service trade system. Statistics Lesotho uses Eurotrace. Data are mainly capture manually. Customs procedures do not conform to the International Conversion on the Simplification and Harmonization of Customs procedures outlined in the Kyoto conversion. The customs procedures do not allow for the identification of importation of goods under clearance for home use whether it is a re-admission in the same state or not.

## **Re-exports**

Seychelles explained that the three main components that make up its international trade are imports, domestic exports and re-exports, of which re-exports is becoming increasingly important to the Seychelles because of its strategic location as a transit point between Africa and Asia and also as the centre for tuna fishing in the Indian Ocean. An overview of the different types of trade flows is (a) imports for home consumption (direct), (b) imports for home consumption ex-warehouse, (c) imports for warehousing or re-exports, (d) re-exports ex-warehouse, (e) re-exports of nationalised goods, and (f) domestic exports.

There are two types of operations in Seychelles' industrial free zones. First, there are firms which import basic raw materials or semi-finished goods for further processing and exporting. Goods under this category are classified as domestic exports. Then, there are firms which import for warehousing in the industrial free zones. The goods are then dispatched to other destinations. Since these goods do not really enter the trade flow it is not recorded as either imports or exports.

Seychelles main exports are canned tuna, shrimps/prawns, fresh and frozen fish, medical appliances and other pharmaceuticals. These are vastly different from exports of the 80's comprising of mostly copra, cinnamon, patchouli, sharks' fins and salted fish.

### **Export Processing Zones (EPZ)**

Kenya started its EPZ-program in 1992 following the enactment of CAP 517 Laws of Kenya, which also created the EPZ Authority (EPZA) as the regulatory body. Production activities began in 1993, effectively. Factors for establishment of EPZs in Kenya are relatively large and dynamic private sector, inexpensive but well trained labour force, and relatively good infrastructure, among others.

The objectives of the EPZ-program are (i) attraction of new investment, (ii) expansion and diversification of export products and markets, (iii) creation of employment, (iv) transfer of technology and upgrading of skills, (v) linkage of development via local resource utilization and (vi) foreign exchange earnings.

Goods entering or leaving the following territorial elements are included in the trade statistics: Industrial free zones, Commercial free zones, Customs warehouses and Premises designated for inward processing.

Trade statistics is disseminated **only** according to the General Trade System as opposed to Special Trade System. On the ground of the existing institutional agreement, Customs Authority records trade for the free zone authority and sends the data to Kenya's NSO.

The kind of processing allowed in industrial free zones is (i) processing of food and agro-products, wood-based products, leather and animal based products and building materials; (ii) processing of pharmaceutical products, textiles, electronics and transport equipment; and (iii) printing and publishing services. In the commercial free zones regulation only allows (i) order taking and re-packaging e.g. of coffee and tea, and (ii) bulk-breaking and trading operations

### **EPZ Performance: 2001-2005**

Indicator	2001	2002	2003	2004	2005	Growth %
Gazetted zones (No.)	23	31	37	41	43	4.9
Enterprises Operating (No.)	39	54	66	74	68	-8.1
Total Employment	13,758	27,148	39,111	38,560	38,844	0.7
Total sales (Kshs. Million)	6,499	11,040	14,817	24,217	23,774	-1.8
Exports (Kshs. Million)	5,962	9,741	13,812	23,047	20,036	-13.1
Domestic Sales (Kshs. Million)	538	932	619	651	3,160	385.4
Imports (Kshs. Million)	3,990	7,043	9,920	13,029	12,497	-4.1
Investment Kshs. Million	8,950	12,728	16,716	17,012	17,637	3.7
Expenditure on local Purchases (Kshs M) <sup>1</sup>	718	1,127	1,176	1,893	2,388	26.1



## **Commodity classifications**

The preamble to the Harmonized System (HS) Convention emphasizes the importance of ensuring that the HS is kept up to date in the light of changes in technology or in patterns of international trade. Following this principle the third major revision was completed for 2007 and includes 354 sets of amendments, namely technological progress, change in trade patterns, clarification of text to ensure uniform application and better reflection of trade practice. In the social and environmental fields new subheadings were added to facilitate the monitoring and control of certain species of fish, products of bamboo, pesticides, ozone-depleting substances and products containing asbestos.

Generally speaking, codes are deleted because of low value in world trade (based on UN Comtrade) or because one code is split into two or more codes. Reasons for adding codes are new products and special interest products. Some codes stay but have amendments in content.

### **HS-2007**

Namibia uses HS in disseminating trade statistics. Trade statistics is provided from 2 to 8 HS digit levels. These HS digit levels are also very important in the analysis of trade statistics for various purposes such as determining the state of economy investment or research. Currently, the Republic of Namibia only uses the HS. At the moment there are no conversions to other classifications such as the Broad Economic Categories (BEC) and Standard International Trade Classifications (SITC). However, the importance of other classifications is very crucial and ground work is in the process to ensure that conversions are done in order to use other classifications.

Annual data is available in both the fiscal year and the January – December period, depending on how it is requested and what purpose it is needed for. There are no major adjustments; the fiscal period is arranged by aggregating the months that forms up a fiscal period (April-March).

### **Quantity Measurement**

Malawi uses the HS classification. The following are the quantity measurements of some commodities used by Customs:

- |                         |                                                                |
|-------------------------|----------------------------------------------------------------|
| a) <b>Kilograms</b>     | Tobacco ( <i>HS Code 2401</i> ) is measured in kilograms;      |
| b) <b>Pairs</b>         | Footwear ( <i>HS Code 6401</i> ) are measured in pairs;        |
| c) <b>Units/Numbers</b> | Tractors ( <i>HS Code 8701</i> ) are measured in units;        |
| d) <b>Liters</b>        | Water ( <i>HS Code 2201</i> ) is measured in liters;           |
| e) <b>Square Meters</b> | Carpets ( <i>HS Code 5701</i> ) are measured in square meters; |
| f) <b>Cubic Meters</b>  | Plywood ( <i>HS Code 4412</i> ) is measured in cubic meters;   |
| g) <b>Kilowatts</b>     | Electricity ( <i>HS Code 2716</i> ) is measured in kilowatts.  |

Quantities are aggregated by commodity code. For example, all goods imported from different countries all over the world but having the same HS code are grouped together. This is done automatically during data extraction once the data is available in the computer (using EUROTRACE). Again, if new data set is added to the old one, the data banks are updated. This in turn automatically changes quantities and values already available in the computer.

Problems in quantity measurement and aggregation occur because (a) quantity units are incorrectly recorded (cars measured in kilograms instead of units); (b) commodity codes are incorrectly recorded (diesel recorded as petrol); or (c) customs declaration were incomplete omitting quantities, commodity codes or supplementary quantities. All this leads to delays in data processing, since the data is sent back to MRA for corrections.

Quality control of electronic data from Automated Customs office involves checking of codes (e.g. HS or partner country) and of the relationship between net weight and supplementary unit.

### **Valuation**

Tanzania gave an overview of issues on valuation. In order to compile trade statistics, a value has to be established for each goods transaction that is to be included in the trade statistics. **Statistical value** is the sum of the transaction value of goods and the value of the services performed in delivering the goods to the border of the exporting or importing country (largely freight and insurance), which are not included in their transaction value.

In 1947, the agreement on standardisation of customs value was adopted through Article VII of the General Agreement on Tariffs and Trade (GATT). In 1953, the Brussels Definition of Value (BDV) was developed. BDV used notional value, non-transparent, arbitrary and based on market price and was implemented in Tanzania until December 2000. In 1994, the WTO Agreement on Customs Valuation was established under the Article VII of the General Agreement on Tariffs and Trade and came into effect on 1st January 1995. This agreement adopted the customs value of imported goods as the transaction value. It is fair, uniform, neutral and transparent and based on price actually paid or payable. WTO-ACV was implemented in Tanzania in January 2001 under Finance Act No: 11 of 2000.

WTO –ACV allows including in or excluding from customs value, in whole or in part such components as

- (a) The cost of transport of imported goods to the port or place of importation;
- (b) Loading, unloading and handling charges associated with the transport of imported goods to the port or place of importation; and
- (c) The cost of insurance.

## **Revision processes**

UNSD gave an overview of those revision processes which have a bearing on the recommendations for international merchandise trade statistics, namely

- Update of System of National Accounts (1993 SNA, Rev.1) scheduled for approval by Statistical Commission (SC) in 2008
- Revision of Balance of Payment Manual (BPM6) available by late 2008
- Manual on Statistics of International Trade in Services (MSITS, Rev.2) for SC approval in 2009
- Harmonised System 2007 in force as of 1 Jan. 07
- Standard international trade classification (SITC) Rev. 4, plus correlation tables now available
- Revised Kyoto convention entered into force 3 February 2006

The stricter application of the change of ownership principle in SNA and BPM6 causes a change of coverage of merchandise trade under Balance of Payments. Specifically, to calculate General merchandise BOP (of BPM6) from IMTS data, you now need to deduct “goods for processing without change of ownership”, add merchanting and deduct migrants effects – if it was included in IMTS.

There is a need to revise the current recommendations for IMTS, because of changes in the ways international merchandise trade is conducted (increasing globalization; outsourcing; expansion of intra-firm trade; transactions with bundled goods and services components; and spreading of e-commerce) and because of changes in legal environment in which international trade transactions are conducted and which affect availability and contents of the main source of trade data - customs records (abolition of customs borders or simplification of customs procedures by many countries; new developments regarding rules of origin of traded goods; various experiences in interpretation and application of the WTO valuation agreement)

The outline of the revision process for IMTS, Revision 3, is as follows

**2007 – First Expert Group meeting December 2007 in New York (including Nigeria and Senegal for Africa)**  
**2008 – Proposal to the UN Statistical Commission (SC)**  
**2008 – World-wide consultation**  
**2008 – 2009 electronic discussion (Expert Forum)**  
**2009 – First full draft of new Manual**

**November 2009 - Completion of the revised Manual**

**2010 – Approval by SC**

## Trade indices and Trade indicators

### Calculation of Export and Import Price Indices

Mauritius explained its methods of compiling trade indices. First of all, the Unit Value Index provides an overall measure of price changes of imported/exported goods. The calculation of trade indices for Mauritius has, so far, been based on two methods, namely: (i) the unit value index and (ii) the pure price index. The method used to derive both types of indices is of the Laspeyres' type and is denominated in Mauritian rupee. The quarterly indices have been published within a time lag of three months.

Turkey started its presentation with the use of unit values for calculation of external trade indices as a measurement of price and quantity changes in external trade. Many users need more information than trade values by countries or by commodities, and require information on prices and volumes as well. They are used as short term indicators of inflation transmission, to measure changes in a country's terms of trade, and as deflator of export and import value to yield measures of changes in export and import volumes.

In most countries, unit value indices have been used more widely. Unit value indices can cover relatively a larger proportion of commodities than price indices. Unit value indices are derived from administrative data of the customs office, which implies a low cost to the trade index compiler. One of the defects of unit value indices is that they lack the quality change adjustment in commodities. Chain indices can be easily adopted in unit value indices. To change the weight regularly requires burdens of work force and time in price indices.

The coverages of the unit value indices for exports and imports are 1,304 items or 82% in value terms for exports and 1,851 items or 83% for imports.

Some problems which were encountered in the calculation of the unit value indices are (i) poor quality of quantities, (ii) misclassification of commodities, (iii) changes in commodity codes between HS revisions, (iv) heterogeneous commodities, (v) quality changes and (vi) extreme unit value relatives. An example of changes in commodity codes is given below.

Turkey publishes the indices in its monthly news release and the Foreign Trade Statistics Yearbook and also on the Internet at [www.turkstat.gov.tr](http://www.turkstat.gov.tr).

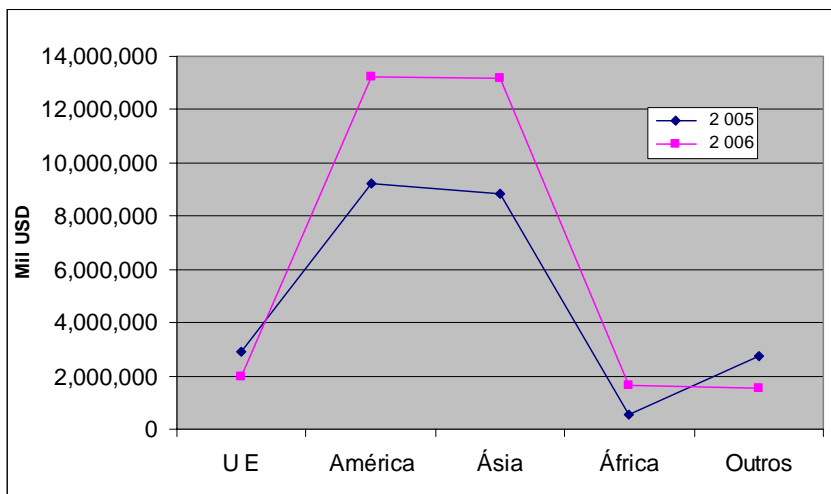
2006		}	2007	
Dried figs			Dried figs	
0804.20.90.00.11	Extra class	}	→	0804.20.90.00.00
0804.20.90.00.12	First class			
0804.20.90.00.13	Second class			
0804.20.90.00.14	Dried and natural			
0804.20.90.00.19	Others			

**Trade indicators**

COMESA gave an overview of the trade indicators as published on its CD-ROM, which include micro trade indicators like (i) the Export intensity index, (ii) the revealed symmetric comparative advantage (RSCA) index, and (iii) the Export specialization index; and macro trade indicators like the trade by GDP ratio.

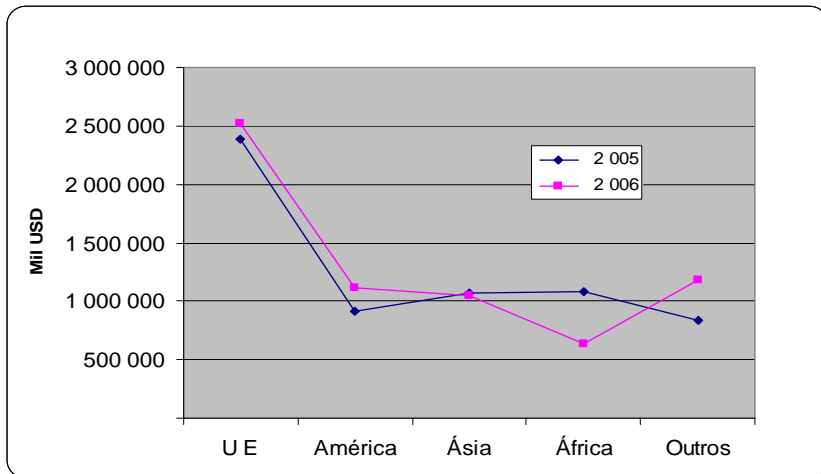
Angola showed a number of graphs on the trade performance of Angola, such as the exports of Angola by region in thousands of US dollars. Total exports of Angola was about 24 billion US\$ in 2005 and almost 32 billion US\$ in 2006.

**Exports of Angola by Region**



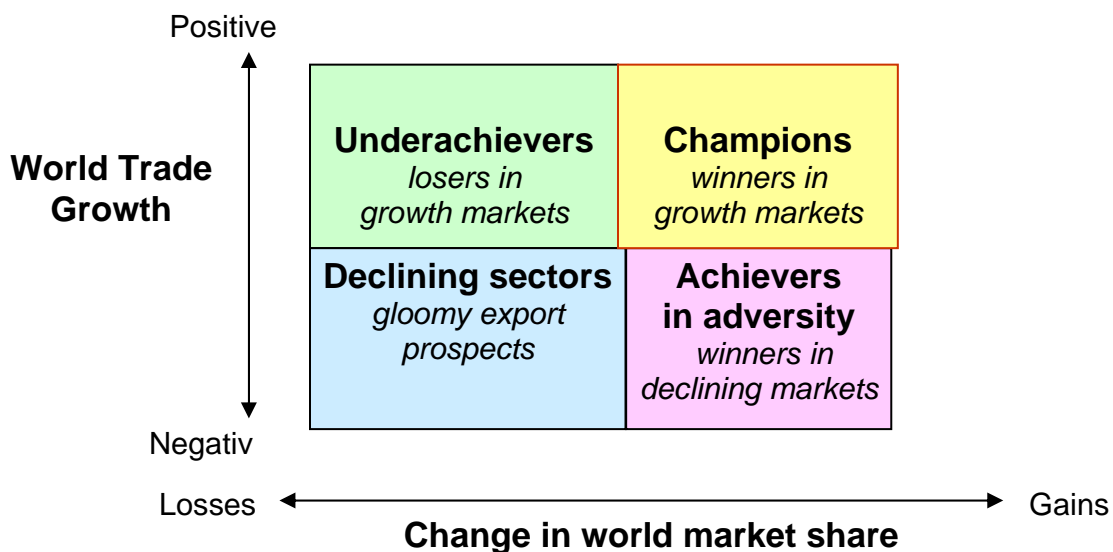
Exports mostly consist of exports of crude oil. Total imports of Angola was about 6.5 billion US\$ in both 2005 and 2006. As seen in the graph below, Angola mostly imports its goods from Europe.

**Imports of Angola by Region**

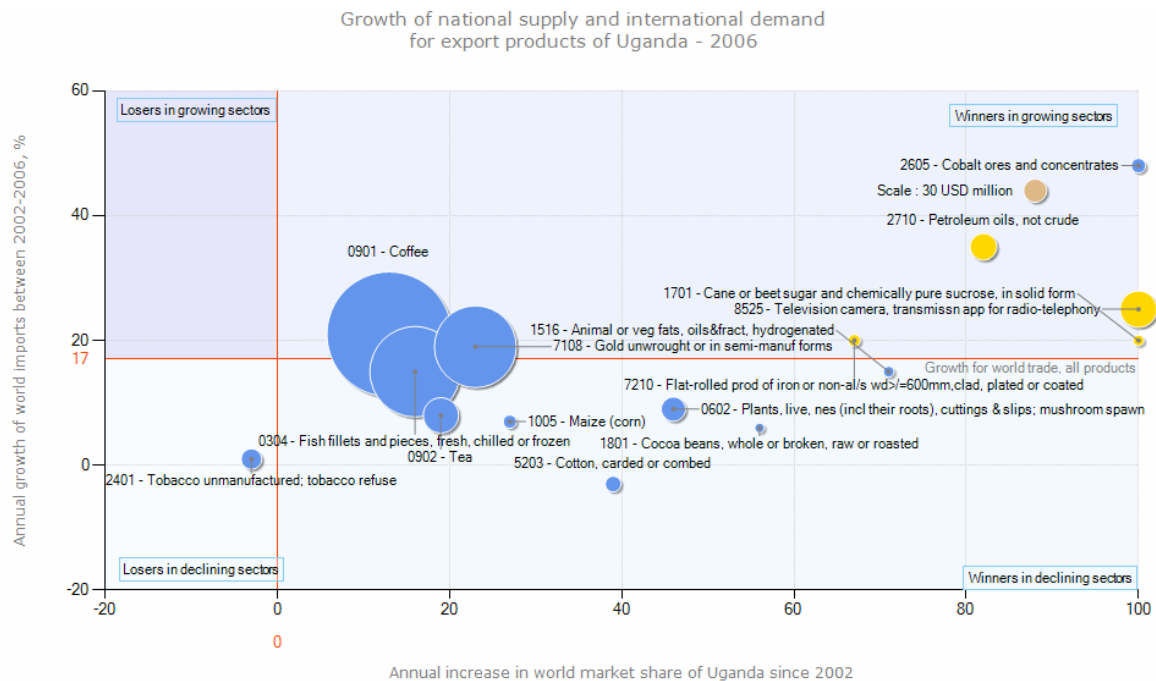


ITC explained that it needs to develop trade indicators to help answer questions on (i) national and sectoral trade performance and competitiveness, (ii) on international demand of export products, (iii) on market potential and (iv) on priority sectors and partners for trade promotion. ITC therefore shows overviews of country's trade performance, such as for Thailand hereafter.

Another way of looking at trade performance is from a world perspective.



The question addressed here is, if your country is doing well in its markets as compared to global competitors. The next graph shows Uganda's export performance in its different markets.



ITC calculated these indicators to enhance the transparency on trade statistics and to help trade analysts in their studies. However, for good interpretation of them, the trade analyst should know all the reasons that could explain discrepancies between direct statistics and mirror statistics.

## Conclusions and recommendations

The exact description of the recommendations of this workshop is given in Annex 3.

On institutional and coordination issues a better description of responsibilities of Customs and NSOs was recommended. Specifically, it was proposed to that a joint letter of UNSD, UNECA and COMESA to Customs and NSO of selected African countries could re-emphasize the responsibilities of Customs regarding completeness and validation of Customs declarations and of NSO for compilation and quality assurance of trade statistics. It can further be explained that Eurotrace as installed in Customs and at NSO can serve the individual needs and does not imply extra work for Customs or a decreasing role of NSO.

Regarding capacity building it was recommended and fully supported that COMESA coordinates further training and capacity building regarding Eurotrace, especially for use of SQL and MS-Access, and involves both staff of NSO and Customs. Within the context of Eurotrace, COMESA will coordinate the possible exchange of available data validation and checking procedures among COMESA member states and associate

countries. Further, it was recommended that a joint letter of COMESA, ECA and UNSD be sent to Eurostat in which the importance of Eurotrace for the countries of Eastern and Southern Africa is emphasized and in which Eurostat is urged to take a longer commitment on continuation of support and maintenance of Eurotrace. The letter should include the request to make the module on calculation of trade indices (TIM) available for implementation or further development in connection with the Eurotrace tool. Finally, the need for a methodological guide for calculation of external trade price indices was expressed and it was recommended that ECA in cooperation with COMESA and UNSD develops a methodological guide of external trade price indices and supports countries in its implementation;

On customs data source, it was recommended that the initiative of COMESA to harmonize Customs Procedure Codes be supported and implemented by the Customs administrations of its member states. In particular, it was recommended that the CPCs for inward processing with suspension of duties and inward processing with drawback of duties be applied because of the interest in identifying goods for processing.

On non-customs data sources, it was recognized that Informal Cross-Border Trade (ICBT) is important and be included in international merchandise trade statistics. It was recommended that ICBT be taken up formally as non-Customs data source in the new revision of the IMTS manual. It was further recommended that the NSOs of this region support this initiative. Regarding Goods for processing abroad, it was recommended that for the purpose of providing some additional information for Balance of Payment (BOP) compilers, countries use the customs procedures for inward and outward processing, if not already applied. In addition, it is recommended to use – if possible – the Nature of Transaction codes to identify, for instance, (i) processing under contract, (ii) goods for repair, (iii) goods under financial lease, and (iv) goods under operational lease. In addition, the use of Type of Payment is recommended.

Regarding Goods under financial lease, it was recommended that countries follow the UN recommendation to include goods under financial lease, for example aircraft, ships and large mining or construction equipment. Those items should be entered into the statistics at full value in the year of acquisition. It is further recommended that UNSD in cooperation with Turkey and UNECA prepares a short document explaining the issue of goods under financial lease and makes it available to all participants.

On commodity classifications and correlation tables, it was recommended that UNSD support countries by providing – on request and if available – description files of commodity classifications and correlation tables and by answering related questions, especially where it concerns HS-2007, SITC, Rev.4 and BEC



## ANNEX 1

# Revised Agenda

Morning session will be as much as possible from 8:30 to 11:30 and afternoon sessions from 13:00 to 16:00 (*Each 3 hour session includes a break of 15 minutes*)

### **Monday, 12 November 2007**

*Registration for participants:* 8:00-9:00

*Morning session* 9:00 -11:30

1. Opening of the meeting (ECA) {15 minutes}
2. Adoption of Agenda, Purpose of workshop and Administrative matters – UNSD/ECA {15 minutes}
3. UNSD activities in the field of International Trade Statistics – UNSD {20 minutes}
4. ECA activities in the field of International Trade Statistics – ECA {20 minutes}
5. COMESA activities in the field of International Trade Statistics – COMESA {20 minutes}
6. Overview of the results of the NCDP Questionnaire 2006 of countries participating in the workshop (UNSD presentation followed by General Discussion) {45 minutes}

*Afternoon session* 13:00-16:00

### **Data sources**

7. Institutional arrangements in data collection; cooperation between the national statistical office (NSO) and (i) Customs and (ii) other agencies
  - a. Introduction by UNSD {10 minutes}
  - b. Invited country presentation
    - i. **Statistics Zimbabwe** {15 minutes}
    - ii. **Statistics Swaziland** {15 minutes}
    - iii. **Statistics Ethiopia** {15 minutes}
  - c. General Discussion – Comments from Customs {15 minutes}

8. Customs Declarations – Revised Kyoto Convention, Single Administrative Document and relation to IMTS
  - a. Introduction by UNSD {10 minutes}
  - b. Invited country presentation
    - i. **Customs Israel** {15 minutes}
    - ii. **Statistics Botswana** {15 minutes}
  - c. Use of ASYCUDA in the COMESA region (COMESA) {15 minutes}
  - d. General Discussion {15 minutes}
  
9. Data validation procedures – Customs Procedure Codes, commodity nomenclature, country nomenclature, valuation, quantity units, quantity measurement
  - a. Introduction by UNSD {10 minutes}
  - b. Invited country presentations
    - i. **Statistics Madagascar** {15 minutes}
    - ii. **Statistics Sudan** {15 minutes}
  - c. Eurotrace use in the COMESA region (COMESA) {15 minutes}
  - d. General Discussion {15 minutes}

### Application of methodological concepts

**Tuesday, 13 November 2007**

*Morning session*      8:30 -11:30

10. Overview of international recommendations - Current recommendations; revision processes influencing the measurement of IMTS and the upcoming third revision of the IMTS manual (UNSD), including conceptual relationship between IMTS and SNA/BOP and additional data collection for SNA/BOP purposes. – Presentation by UNSD {30 minutes}
  
11. Coverage, especially goods for processing and used goods; and time of recording – lodgement of declarations, inclusions and exclusions from IMTS
  - a. Introduction by UNSD {10 minutes}
  - b. Goods for processing
    - i. **Statistics Turkey** {20 minutes}
    - ii. **Statistics Lesotho** {15 minutes}
  - c. Used Goods (**Statistics Mozambique**) {15 minutes}
  - d. Cross Border Trade (**Statistics Uganda**) {15 minutes}

- e. General Discussion {20 minutes}

*Afternoon session* 13:00-16:00

- 12. Trade System, re-exports and re-imports, Customs Procedure Codes and Free Zone Administration (including General trade and Special trade).
  - a. Introduction by UNSD {10 minutes}
  - b. Trade System and Customs Procedures (**Statistics Zambia**) {15 minutes}
  - c. Re-exports (**Statistics Seychelles**) {15 minutes}
  - d. Export Processing Zones (**Statistics Kenya**) {15 minutes}
  - e. General Discussion {15 minutes}
  
- 13. Partner country – Country of Origin and Last known destination
  - a. Introduction by UNSD {10 minutes}
  - b. Determining partner countries (Imports, Exports and Re-exports) (**Statistics Israel**) {20 minutes}
  - c. General discussion {15 minutes}

**Wednesday, 14 November 2007**

*Morning session* 8:30 -11:30

- 14. Commodity classifications (including correspondences between classifications) and Quantity measurement
  - a. HS-2007 and SITC, Revision 4 (UNSD Presentation) {20 minutes}
  - b. Consequences of implementation of HS-2007 (**Statistics Namibia**) {15 minutes}
  - c. Quantity Measurement (**Statistics Malawi**) {15 minutes}
  - d. General Discussion {15 minutes}
  
- 15. Valuation – Imports CIF and FOB, Exports FOB – and currency conversion
  - a. Introduction by UNSD {15 minutes}
  - b. Valuation – Imports CIF and FOB, Exports FOB (**Statistics Tanzania**) {15 minutes}
  - c. General discussion {15 minutes}

*Afternoon session* 13:00-16:00

**16. Conclusions of previous sessions and General Discussion on IMTS, Concepts and Definitions: topics for revision** (Introduction by UNSD)

**Thursday, 15 November 2007**

*Morning session* 8:30 -11:30

17. Calculation of Export and Import Price Indices (XMPI)
- a. Introduction (**UNSD presentation**)
    - i. Calculation of unit value and volume indexes {20 minutes}
    - ii. Overview of the draft XMPI Manual {30 minutes}
  - b. XMPI calculation using unit values
    - i. **Statistics Turkey** {30 minutes}
    - ii. **Statistics Mauritius** {30 minutes}
  - c. General Discussion {30 minutes}

*Afternoon session* 13:00-16:00

18. Calculation of Trade indicators
- a. Trade indicators on a regional or global level
    - i. UNSD presentation {20 minutes}
    - ii. COMESA presentation {20 minutes}
  - b. Trade indicators on National level
    - i. **Statistics Angola** {20 minutes}
  - c. Trade indicators for use in Market Analysis
    - i. ITC presentation {45 minutes}
  - d. General Discussion {20 minutes}

**Friday, 16 November 2007**

*Morning session* 8:30 -13:00

19. Conclusions and recommendations of the meeting (UNSD, ECA)
20. Evaluation of the Workshop and other business

**ANNEX 2**  
**List of Participants**

<b>Country</b>	<b>Name</b>	<b>Department/ Function</b>
Angola	Ms. Margarida LOURENCO	Institut National de Statistique / Technicienne Superior – Head of Trade Statistics Division
Botswana	Mr. Keanewa MANDOZE	Central Statistics Office / Statistician II
Ethiopia	Mr. Haile Mageru ASFAW	Central Statistical Agency / Acting Dept Head
Ethiopia	Mr. Samuel HAILU	Central Statistical Agency / Statistician
Israel	Ms. Rachel KLEIN	Central Bureau of Statistics / Coordinator, Foreign Trade Division
Israel	Mr. Yaakov BOZO	Tax Authority / Economist
Kenya	Mr. William Lituyi ETWASI	Kenya National Bureau of Statistics / Senior Economist / Statistician
Lesotho	Mr. Monyane KHATALA	Lesotho Bureau of Statistics / Statistician
Madagascar	Mr. Jimmy RAJAobelina	Institut National de la Statistique / Ingenieur
Malawi	Mr. Bright MVULA	National Statistical Office / Statistician
Mauritius	Mrs. Narseen JOOMUN	Central Statistical Office / Senior Statistical Officer
Mozambique	Mr. Afonso UATE	Instituto nacional de Estatistica / Technician
Namibia	Mr. Aloysius TSHEEHAMA	National Planning Commission / Chief Statistician
Seychelles	Mr. Michel Jean MELLIE	National Statistical Bureau / Principal Statistician
Sudan	Mr. Mohamed ELHAG	Central Bureau of Statistics / Statistician
Swaziland	Mr. Muziwandile DUBE	Central Statistical Office / Senior Statistician
Tanzania	Mr. Michael Anselim ASSENGA	National Bureau of Statistics / Statistician
Turkey	Mr. Bulent TUNGUL	Turkish Statistical Institute / Head of External Trade Division – National Coordinator

Turkey	Mr. Niyazi ALBAYRAK	Prime Ministry Undersecretariat of Customs / Chief of Statistical Division
Uganda	Mr. John MAYENDE	Uganda Bureau of Statistics / Senior Statistician
Zambia	Mr. Joseph TEMBO	Central Statistical Office / Senior Statistician
Zimbabwe	Ms. Sylvia NYAMAKWENJE	Central Statistical Office / Principal Statistical Officer
COMESA	Mr. Anthony Walakira	COMESA Secretariat, ADP Expert Eurotrace
COMESA	Mr. Wilson Chizebuka	COMESA Secretariat, Programmer
COMESA	Mr. Raymond Magadzire	Zimbabwe Revenue Authority, Asycuda Administrator
COMESA	Mr. Jeremy Manirambona	Burundi Customs, Chef de Bureau des Douanes de Bujumbura Port
COMESA/ Egypt	Mrs Nadia Farid EL-Bakary	Director General of Trade and Transport Statistics
COMESA/ Egypt	Mr. Mohamed Abou EL Enein	Director General of the Statistical Unit (Customs Administration)
ITC	Mr. Christian Delachenal	International Trade Centre
UNSD	Mr. Ronald Jansen	International Trade Statistics Division / Chief
UNSD	Mr. Serekeberhan Zerai	Methodology, Analysis and Trade in Services Unit / Chief
ECA	Mr. Bakary Dosso	African Centre for Statistics/ Statistician
ECA	Mr. Tesfaye Belay	African Centre for Statistics/ Statistics Assistant

## ANNEX 3 Recommendations

### **Institutional and coordination issues:**

#### *Rec.1 Better description of responsibilities of Customs and NSOs*

1. It is recommended for COMESA member states and associate countries that the different responsibilities of Customs and NSO regarding the preparation and checking of international trade statistics be clearly described.

#### Possible implementation:

A joint letter of UNSD, UNECA and COMESA to Customs and NSO could re-emphasize the responsibilities of Customs regarding completeness and validation of Customs declarations and of NSO for compilation and quality assurance of trade statistics. It can further be explained that Eurotrace as installed in Customs and at NSO can serve the individual needs and does not imply extra work for Customs or a decreasing role of NSO.

### **Capacity Building**

#### *Rec.2 Training in EUROTRACE*

2. It is recommended and fully supported that COMESA coordinates further training and capacity building regarding Eurotrace, especially for use of SQL and MS-Access, and involves both staff of NSO and Customs. Within the context of Eurotrace, COMESA will coordinate the possible exchange of available data validation and checking procedures among COMESA member states and associate countries.

#### *Rec.3 Continuation of Eurostat support*

3. It is recommended that a joint letter of COMESA, ECA and UNSD be sent to Eurostat in which the importance of Eurotrace for the countries of Eastern and Southern Africa is emphasized and in which Eurostat is urged to take a longer commitment on continuation of support and maintenance of Eurotrace. The letter should include the request to make the module on calculation of trade indices (TIM) available for implementation or further development in connection with the Eurotrace tool.

Rec.4 *Methodological guide for calculation of external trade price indices*

4. It is recommended that ECA in cooperation with COMESA and UNSD develops a methodological guide on the calculation of external trade price indices and supports countries in its implementation;

**Data source**

Rec.5 *Support for initiative to harmonize Custom Procedure Codes and their application*

5. It is recommended that the initiative of COMESA to harmonize Customs Procedure Codes be supported and implemented by the Customs administrations of its member states. In particular, it is recommended that the CPCs for inward processing with suspension of duties and inward processing with drawback of duties be applied because of the interest in identifying goods for processing.

Possible implementation:

This recommendation could be added to the letter to Customs and NSO.

Rec.6 *Informal Cross-Border Trade as recognized non-Customs data source*

6. It is recognized that Informal Cross-Border Trade (ICBT) is important as non-Customs data source and be included in international merchandise trade statistics. It is recommended that ICBT be taken up formally as non-Customs data source in the new revision of the IMTS manual. It is further recommended that the NSOs of this region support this initiative.



### **Application of methodological issues**

#### *Rec.7 Goods for processing abroad*

7. For the purpose of providing some additional information for Balance of Payment (BOP) compilers, it is recommended that countries use the following customs procedures, if not already applied:
  - a. Imports for inward processing
  - b. Imports after outward processing
  - c. Exports for outward processing
  - d. Exports after inward processing

In addition, it is recommended to use – if possible – the Nature of Transaction codes to identify, for instance, (i) processing under contract, (ii) goods for repair, (iii) goods under financial lease, and (iv) goods under operational lease. In addition, the use of Type of Payment is recommended.

#### *Rec.8 Goods under financial lease*

8. It is recommended that countries follow the UN recommendation to include goods under financial lease, for example aircraft, ships and large mining or construction equipment. Those items should be entered into the statistics at full value in the year of acquisition. It is further recommended that UNSD in cooperation with Turkey and UNECA prepares a short document explaining the issue of goods under financial lease and makes it available to all participants.

#### *Rec.9 Commodity classifications and correlation tables*

9. It is recommended that UNSD supports countries by providing – on request and if available – description files of commodity classifications and correlation tables and by answering related questions, especially where it concerns HS-2007, SITC, Rev.4 and BEC.

## ANNEX 4

### **Calculation of external trade index**

#### *Example of Mauritius*

The unit value index has been computed by the Central Statistics Office of Mauritius from 1964 to 2003. The CSO has thereafter improved its methodology by adopting the calculation of pure price indices, that is, the export price index in 1992 and the import price index in 2003. Unit value indices were used as a proxy for the price index. They were computed from customs declaration filed in by traders. Data pertaining to quantity, value, description of goods and country of origin and destination were thus available, enabling the computation of the unit value (based on FOB for exports and CIF for imports) for each commodity.

The pure price indices are based on the prices of specific items (by brand, country, packaging etc) collected on a quarterly basis through export and import surveys of importers and exporters.

The external trade index measures changes in prices and volumes of imports and exports for the purpose to:

- Analyse the effect of price changes on various sectors of the economy
- Calculate the terms of trade, which is the ratio of the export price index to the import price index. A rise in this ratio indicates that the terms of trade have moved in favor of the country.
- Analyse the effect of exchange rates on import and export prices
- Provide quarterly measures of the trend in the price of the country's exports and imports
- Provide deflators for national accounts to calculate the growth rate of imported goods in wholesale/retail sector and G.D.F.C.F (imported machinery)
- Make budget revenue projections and macro-economic forecasts as Mauritius imports most of its products.

### **Construction of the unit value index**

#### Scope and Classification

The commodity classification used so far for the compilation of import/export price index is the United Nations Standard International Trade Classification (SITC Rev 3) whereby commodities are classified under the locally adopted 7-digit item codes, 3-digit groups, 2-digit divisions and 1-digit sections.

#### Selection of items in the basket of goods

This involves the examination of the structure of country's imports and exports and the selection of the most important and regularly traded commodity groups separately for imports and exports. Initially the unit value index for Mauritius was derived from a

sample of SITC products whose import or export values exceeded a designated threshold assuming that products not represented follow the same trend. At a later stage, improvements were made by taking into consideration division, group and country representation.

The following items were excluded because of irregularity in their trade, heterogeneity of the products and difficulty in computing unit values:

- ships, aircraft, works of art, jewelry and precious stones
- items which show very little trade over the base year
- items in respect of which the base year unit values are out of range
- items falling in section 9 of the SITC described as “goods not classified elsewhere”.

Value coverage: the value coverage used for imports was around 70% whilst those for exports were nearly 90%.

The CSO has been compiling on a quarterly basis three series of unit value trade indices, namely (i) Domestic export unit value index, (ii) Imports unit value index, and (iii) Export Processing Zone (EPZ) unit value index.

### **Sources of data used for the compilation of the unit value index**

External trade statistics are compiled from data obtained from various sources, such as (i) bills of entry obtained from the Customs Department, (ii) the State Trading Corporation which provides information relating to imports of petroleum products, rice, flour, wheat and cement, and (iii) the Mauritius Sugar Syndicate supplying us with information on exports of sugar

### Choice of base period

The base year should be a year with rather stable political and economic conditions. Given the constant shift in the importance of goods imported and exported, the best practice is to revise the baskets of goods for calculation of weights every five years.

### Weighting Scheme

The weights are normally derived from data relating to the year defined as the base year. Weights assigned to each level of the SITC (namely item, group, division and section level) are based on their contribution in import/export in that particular year. The weight for each section is calculated as the ratio of their respective import/export values in the base year over the total value of import/export for that year. The section weights are then redistributed among the selected divisions which are in turn redistributed to the groups represented.

## Calculation of unit value indices

The most commonly used methods for calculation of trade indices are: Laspeyres, Paasche and Fisher. It is worth pointing out that in the case of Mauritius, initially for both imports and exports the overall unit value was calculated as a weighted average of SITC sections derived from a sample of selected SITC products using the Laspeyres method. The methodology was later refined by selecting a stratified sample and applying weights calculated on the respective shares of each section, division and group in the total CIF/FOB value. It was further modified taking into consideration in the calculation, countries of origin/destination of the revised indices, thus improving the method of compilation. A country is included if (1) the value of transactions for a particular item during the base year represents at least 1% of the total value of imports/exports of that item and (2) the commodity has been traded for at least two quarters during the base year.

The Laspeyres type unit value index is derived by weighing the quarterly unit values with base year quantities. For items whose unit values are rejected (outliers) or are missing because they were not traded for that particular period, the unit value changes are imputed from other items falling in the same SITC section. Where the unit value is out of range investigations are made from the bills constituting the items to know whether genuine price changes or due to misclassification or wrong reporting or exchange rate effect and corrections are made accordingly.

### Product level

For each product  $P1Q0$  and  $P0Q0$  is calculated and summed over all countries represented to give the values for the product.

### Group level

An index is calculated for each group using the Laspeyres fixed weight formula.

$$IG(i) = \frac{\sum P1Q0}{\sum P0Q0}$$

The sum being extended over all commodities represented in group I

### Division level

The index for each division is derived as a weighted average of the indices of all groups within that division. The formula is

$$ID(j) = \frac{\sum W_i I_{G(i)}}{\sum w_i}$$

Where  $ID(j)$  = Index for division j

$W_i$  = Weight of group i  
 $IG(i)$  = Index of group I

### Section level

The index for each section is calculated as a weighted average of the indices of all divisions within that section using the formula

$$I_{SK} = \frac{\sum W_j I_{DJ}}{\sum W_j}$$

Where  $ISK$  = index for section k  
 $W_j$  = Weight of division j  
 $IDJ$  = Index of division j within section k

### The Overall Index

Finally the overall unit value index is derived as a weighted average of the indices of the various sections. The formula is

$$I = \frac{\sum W_k I_s(k)}{\sum W_k}$$

Where  $I$  = Overall unit value index  
 $W_k$  = Weight of section K  
 $I_{sk}$  = Index of section K

### Advantages of unit value indices

- Data readily available (inexpensive – no cost sampling or field visit);
- Data comprise the universe of trade and not simply a sample of importers and exporters;
- Easier to compute.

### Disadvantages of unit value indices

- Reflect not only changes in commodity prices but also changes in the commodity mix in the commodity group;
- Do not account for changes in the quality of commodities;
- Inaccuracy of Customs records.
- Certain characteristics relevant to statistical operations tend to be overlooked by the Customs Department during clearance of imported goods. These are namely:
  - the proper classification of goods
  - quantity measures when there is a supplementary unit for the product
- In the case of the unit value index for Mauritian exports, these problems are minor since the range of domestically produced goods is rather limited

## Adoption of the pure price indices of imports and exports

The pure price index was proposed as a more appropriate method since it would eliminate the unit value bias. It took some time to start since it necessitated more resources and manpower for the survey work.

As from 1993 the CSO started collecting prices for the computation of a new set of price indices, among which was the Export Price Index (EPI). A price Unit has been set up for the collection exercise whilst computation and dissemination are done by respective sectoral unit

### Objectives

To have more reliable indices

To reduce the time lag between the collection of data and compilation of indices

To remove the dependence of price indices on customs data

The Export Price Index (EPI) is a measure of price change of domestically produced Mauritian products shipped to other countries. It excludes re-exports. The Import Price Index on the other hand, is a measure of price change of imported goods excluding those of the commercial free zone (The Mauritius Freeport). The first series of EPI was calculated with the year 1993 as base and reference period. The index was first revised in 1997 and subsequently revised in 2003. Computation of pure price index for imports (IPI) has been implemented much later (in 2003) than the EPI as the range of products that we import is much wider and it requires more resources for the pricing of imported goods (36 commodities are priced for the EPI against 142 for the IPI). In so far as scope, classification and coverage are concerned, the same rules apply as for the computation of unit value indices.

A modified Laspeyres formula based on the weighted average of price relatives is used to calculate the EPI and the IPI. The price relative of each item forms the most basic level for the compilation of higher aggregate indices whereas for the computation of the unit value index weights are assigned only to groups, divisions and sections.

The formula is as follows:

$$I_{ot} = \frac{\sum w_i \times \frac{P_{it}}{P_{i0}} \times 100}{\sum w_i}$$

Where

$I_{ot}$  is the index for period t compared to base period 0

$w_i$  is the weight of the ith element

$P_{i0}$  is the base price of the ith element

$P_{it}$  is the price of the ith element in period t

**Specificity of price collection**

Prices are normally collected on a monthly basis and averaged for each quarter. For imports, in case where most imports occur at intervals longer than a month, prices are collected once every quarter and refer to the last consignment.

For exports, sugar and Molasses produced during a crop year, which normally extends between July and June of the following year, are usually exported during that same crop year. Export prices of these commodities being mostly negotiated prices, the same average yearly price for the crop year is used for the four quarters comprising that crop year. The base price of these commodities for the year 2003 is the average price for crops years 2002/03 and 2003/04.