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Dossier suivi par :
Alain GALLAIS
Tél. : 01.41.17.58.55
Fax : 01.41.17.63.11
Mél : alain.gallais@insee.fr

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Object: Opportunity to include some recommendations about quality assessment in the future manual « *International Merchandise Trade Statistics: Concepts and Definitions, Revision 3* **» - what would provide the European way on a global level?**

In Eurostat there is a yearly quality report for international merchandise trade statistics (metadata and data quality) with a public dissemination[1], and, more broadly, there has been a long reflexion about quality in statistics, which has resulted in a well-defined list of headings. This note explores the adaptation of the European approach at a global level (IMTS in all countries and United Nations), the possible additional content of "*chapter VII Reporting and dissemination*" in the future manual « *International Merchandise Trade Statistics: Concepts and Definitions, Revision 3* », and even a draft of a "UN quality report on international merchandise trade statistics" in the European spirit.

I Internal and external quality reports in the Eurostat guidance

The work of Eurostat or for Eurostat is certainly better known for "external" quality reports than for "internal" ones, as these latter are not designed for a broad dissemination. Nonetheless, conceptually, the need of internal quality reports is to be considered first, and this idea fits particularly well with "customs data". The Eurostat working document of 2003: '*Quality assessment of administrative data for statistical purposes*[2], which provides the guidance developed here, quotes "tax forms" and "customs data" as the two typical examples of administrative data used for statistical purposes, and suggests that 2 or 3 "quality reports" should be established in case of administrative data: 1 internal (do the administrative data fulfil the needs or some of the needs of the statistical purpose?), 1 for the users in general and 1 for Eurostat in particular (concerned with the respect of its regulations). The last two could be a common subset of the first one.

In the usual case where the International Merchandise Trade Statistics are provided by customs data but officially compiled by the National Statistical Institutes, it is indeed important to know whether the "customs data" cover the full scope of IMTS, either because of the difficulty to collect some issues enumerated in the specific guidelines of IMTS, Rev.2, either because of thresholds (this point is not mentioned in IMTS, Rev.2) or non-response. For national accounts and Balance of Payments in any case, it is important to know in addition whether the concepts of the IMTS aggregates coincide with these of SNA 1993, ESA 1995 or BPM5, and which additional information from customs data could help their own purposes. An "internal quality report" is then suggested, more or less solemn (signed by the two parties for several years…).

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[1] Quality report on international merchandise trade statistics in EU available on
http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-RA-07-008/EN/KS-RA-07-008-EN.PDF
[2] http://epp.eurostat.ec.europa.eu/pls/portal/docs/PAGE/PGP_DS_QUALITY/TAB47143266/QUALITY%20ASSESSM ENT%20OF%20ADMINISTRATIVE%20DATA%20FOR%20STATISTICAL%20PURPOSES.PDF

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In general, the working document of Eurostat suggests the following headings for "internal quality reports" on administrative data for statistical purposes: clarity (legal context, definitions, methods of data collection, etc), administrative concepts, coverage, reference time, data freshness, errors in the data, completeness, record matching ability, confidentiality and privacy protection, compatibility between file formats, comparability of administrative datasets in time, envisaged uses of the data.

Better known and now broadly applied for the European statistics, Eurostat has defined about seven components of quality for "external quality reports" (first working document in 1998, same year as IMTS Rev.2). Several working documents[3] are available on public Circa, with some variants for the list and the scope of the variables. The original 7 components are: relevance, accuracy, timeliness, availability (accessibility and clarity), comparability (over time or geographically), coherence and completeness (in the sense that all the needs are covered). Sometimes revisions are associated with accuracy, sometimes with coherence. Completeness is sometimes included in coherence, sometimes in relevance. Also, cost and burden are now issues to be taken into account under the "quality" aspect.

II Description of the European "*Quality Report on International Trade Statistics*"

The European quality report is titled "*on International Trade Statistics*", but its scope is restricted to "*value and quantity of goods traded between Member States of the European Union (Intrastat) and value and quantity of goods traded by Member States of the EU with third countries (Extrastat)*", so that it could be more precisely titled "*Quality Report on International Merchandise Trade Statistics*".

The structure of this publication follows the list of the seven components of quality enumerated above. The "quality questionnaire" that the countries have to fulfil is an Excel file limited to the first five components, as nothing is to be reported on "coherence" or "completeness". The national responses of the previous year are reminded on the Excel file.

Relevance: in fact, nothing is asked to countries, except an "optional comment". The relevance (of statistical concepts) is only stated, but it is worth quoting it, as the handbook IMTS, Rev.2 is evoked:

> "*Relevance of statistical concepts means that the data meets users' needs. It refers to whether all statistics that are needed are produced and the extent to which concepts used reflect user needs.*
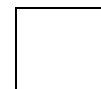>
> *Statistics on the trading of goods, as provided by Eurostat, follow the international recommendations by United Nations Statistics Division (International Merchandise Trade Statistics: Concepts and Definitions). This general recommendations manual is updated regularly so that it reflects the changes in the environment of international trade. Furthermore, the Intrastat and Extrastat Regulations as well as classifications for international trade are revised regularly in order to take into account the economic and administrative environment as well as users' needs.*"

Accuracy: this topic is described in 5 sections:

- Thresholds: in order to reduce the burden of enterprises, the administrative procedures are engaged only above certain thresholds, depending on the system (Intrastat: annual purchases or sales of the enterprise on the European Market, Extrastat: amount of each delivery) and the flow (imports, exports). The questionnaire collects the various levels of thresholds and, if any, the estimates of the trade below the threshold. Many countries do not estimate that in "IMTS", because they consider it is a statistically exercise, of another nature than the administrative procedure (hence, the national accounts have to make these estimates).

- Non-response: when the customs clearances are replaced by enterprises declarations (the case for Intrastat as it should be within customs unions), the unavoidable lack in "administrative data" should be estimated in "statistics". The national experts report their estimates or who make them (in NA for instance).

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[3] One of the most complete :
http://epp.eurostat.ec.europa.eu/pls/portal/docs/PAGE/PGP_DS_QUALITY/TAB47143233/STANDARD_QUALITY_REPORT_0.PDF

- Statistical value: as it is discussed in chapter IV of IMTS, Rev.2, the statistical value CIF or FOB is either to be collected in a special entry, either to be calculated from the invoice value (which is more natural for the economic transactions between enterprises and is necessary for he VAT system). The countries must describe their estimates of the statistical value and in any case the ratio "statistical value" / "invoiced value" they observe or suppose.

- Revisions: the impact of the revisions is described by Eurostat (last with first data, detailed with aggregated) and the countries can describe their procedures in order to limit (anticipate) revisions.

- Confidentiality: Eurostat describes the importance in value and quantity of the confidentiality flags. The countries explain their procedures and if they raise this confidentiality rule after a certain time (for instance France after 3 years).

Timeliness: Eurostat reports the delays (or the advances) observed for each country in the transmission of data to Eurostat in accordance with the EU regulations.

Accessibility: the countries describe their paper or electronic dissemination, only by marks in each category if performed (7 categories are listed)

Comparability: Eurostat provides the mirror arrivals or dispatches in the intra-EU trade and observes the asymmetries.

Coherence: in the quality report, Eurostat evokes only the other European statistical fields, which are concerned with external trade, national accounts, business statistics, balance of payments, but without figures neither list of differences[4].

Completeness: the users' needs are said to be satisfied by the detailed breakdown of products and countries.

III Some guidance to add in the future "IMTS, Rev.3"

Before "*chapter VII Reporting and dissemination*", I suggest two additions in "*chapter I Coverage and time of recording*":

- in section A: "*General guidelines*", trade below thresholds and non-responses could be mentioned, with the general recommendation of making estimates for the lack of "administrative data" in order to perform true "statistics";

- in section B "*Specific guidelines*", after the third list of "*goods to be excluded from detailed IMTS but recorded separately…*" a synthetic table of theoretical convergence and divergence between IMTS, Rev.3, SNA 1993 Rev.1 and BPM6 would be welcome.
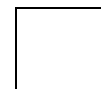
The chapter VII could be organized in four sections:

- Section A: dissemination

- Section B: confidentiality

- Section C: internal quality reports

- Section D: external quality reports.

The section C would recommend this practice and enumerate more or less the same headings as in the Eurostat working document on administrative data mentioned above, with some clarification of the content for International Merchandise Trade. For instance:

- Clarity: legal context (existence of a customs union with other countries, international recommendations or regulations, national laws and regulations, kind of trade system…), definitions (for instance arrivals / imports), methods of data collection (customs clearances, enterprises declarations…), valuation of imports and exports (collected / estimated);

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[4] An attempt of a list has been drafted in « Differences between Balance of Payments and Foreign Trade Statistics », available on
http://epp.eurostat.ec.europa.eu/cache/ITY_OFFPUB/KS-DB-04-001/EN/KS-DB-04-001-EN.PDF

- <u>Administrative concepts</u>: kinds of regimes and procedures, documents for merchandises or enterprises, partner countries recorded;

- <u>Coverage</u>: scope of the customs territory (vs. statistical territory), existence of free ports or industrial zones (provision of lists), thresholds for customs clearances or enterprise declarations;

- <u>Reference time</u>: exact definition of the time of recording (customs declaration / VAT declaration), specific issues with returned goods, reimportations or reexportations…

- <u>Data freshness</u>: policy of revisions, frequency of provision to the NSI;

- <u>Errors in the data</u>: techniques used to improve the accuracy of the data, estimates of the revisions' impact (value, quantity, price), estimates of the accuracy;

- <u>Completeness</u>: situation vis-à-vis the specific lists of IMTS, Rev.3, estimates of the missing coverage or not;

- <u>Record matching ability</u>: with Structural Business Statistics for instance, or with tax data;

- <u>Confidentiality and privacy protection</u>: rules including passive confidentiality, military use, delay for raising the confidentiality;

- <u>Compatibility between file formats</u>: differences of scopes between detailed and aggregated data, seasonally adjusted and raw data;

- <u>Comparability of administrative datasets in time</u>: history of events having affected the scope or quality of data (for instance in the European context: 1993 - implementation of Intrastat, 1997 - inclusions of overseas lands, 2002 - implementation of Euro, 2004 - inclusion of new member states, implementation of estimates for trade below the thresholds.;) to be updated in the yearly internal quality reporting;

- <u>Envisaged uses of the data</u>: links with the taxation system, with the Balance of Payments, international exchanges of individual data…

The section D would also recommend this practice and describe the seven components of quality defined by Eurostat or very similar ones. It could make them more explicit by a summary of their content in the Eurostat "*Quality Report on International Trade Statistics*" (note: some issues are very specific to the European Union and would not be quoted). Relevance, Coherence and Completeness could be developed by the reference to such or such recommendations of the previous chapters of IMTS, Rev.3., as I will make it more explicit in the next section.

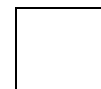## IV <u>Suggestions for the next UN surveys on national concepts and practices</u>

A survey was conducted between 1992 and 1995 by UNSD about the "*International Merchandise Trade Statistics National Compilation and Reporting Practices*", the results of which are the most recent available on the UN website[5]. In a document for the ITS-TIS meeting of September 2007 in OECD, it was said that a "*2006 NCDP Questionnaire*" had been launched in 2006 and was to be published on the UN website in November 2007. Indeed, I could find nobody in France who was aware of it, and neither the design neither the results of this questionnaire were available on the UN website (so, some suggestions I make here are perhaps useless, but I cannot know).

Consistently with the previous content of this note, the first suggestion is to make the structure of the questionnaire follow the seven components of quality defined by Eurostat (or slightly modified but enumerated in the forthcoming IMTS, Rev.3).

The second suggestion is to make profit of the metadata compiled by the other international organizations, above all by Eurostat, in order not to ask countries with questions that have already been answered (and that are even publicly available).

The third suggestion is to ask nothing more on accuracy, timeliness, accessibility and comparability to what Eurostat already asks, except the website addresses for national data and metadata.

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[5] . http://unstats.un.org/unsd/tradereport/introduction.asp

The fourth suggestion is to focus on relevance, coherence and completeness with explicit references to the recommendations of the forthcoming manual IMTS, Rev.3:

Relevance: according to the statement of Eurostat on the respect of *IMTS: Concepts and definitions*, I propose to collect here the compliance with the main recommendations of IMTS, Rev.3 (upcoming), except the lists of goods to be included or excluded (which would be described in the completeness) and all points better covered by the other components of quality. A light view would consist in 1 or 2 questions by chapter of IMTS, Rev.3, for instance: the type of trade system (general/special), the valuation of imports (CIF?) and exports (Fob?), the type of partner country recorded (origin, consignment, destination?), the commodity classifications used, the differences of quantity units vis-à-vis the proposal of WCO by HS heading. A large view could consist in the questions 38 to 118 and 135 to 156 of the "*International Merchandise Trade Statistics National Compilation and Reporting Practices*" collected between 1992 and 1995.

Completeness: the countries would be asked about the inclusion / exclusion / recording apart of the full lists provided by the UN handbook IMTS, Rev.3 in chapter I (more or less the object of the questions 1 to 37 of the "*International Merchandise Trade Statistics National Compilation and Reporting Practices*" collected between 1992 and 1995).

Coherence: there, national accounts and balance of payments should report what they add or subtract in their own figures from "International Merchandise Trade Statistics", more or less for the same categories as for completeness, plus some other items like "thresholds" and "non-responses".

This UN quality survey could be conducted every 10 or 5 years.