

# Compilers Guide of MSITS 2010

*Annotated outline – version 20 April 2012*

## Preface

The preface will describe who prepared the Compilers guide and how it was accomplished.

## Introduction

A rather detailed introduction is needed to explain why the Guide was prepared, clarify the target audience, objectives, scope, structure and level of detail. It should also clarify the reasons for developing this Compiler's Guide in relation to the recently approved Manual on Statistics on International Trade in Services 2010 (MSITS2010) as well as the place of this Guide in the family of other related compilation material available, especially the BPM6 Compilation Guide, the Handbook on the Impact of Globalisation on National Accounts and the IMTS 2010: Compiler's Manual. Regarding the main objectives of the guide the following need to be mentioned (i) implementation of MSITS2010 concepts and recommendations, (ii) identification of good practices in data collection and compilation, (iii) promotion of an integrated approach and importance of effective institutional arrangements, and (iv) provision of additional useful information. The introduction should also refer to the importance of information technology in the entire process, as well as the role of quality management and metadata in each stage of the data production cycle (collection, compilation and publication). An important objective of the guide is to help compilers meet the data statistical requirements of the General Agreement on Trade in Services Statistics (GATS) and to give guidance assisting in improving the availability, quality and comparability of trade in services statistics.

## Part I General Frameworks

### Chapter 1 Conceptual framework

This chapter should clarify the modes of supply framework of MSITS 2010 covering both the treatment of resident-nonresident transactions of services and of Foreign Affiliates Statistics (FATS), as well as other statistical domains. This chapter will also relate the concepts and definitions used in MSITS 2010 to the frameworks of the Systems of National Accounts 2008, the 6<sup>th</sup> edition of the Balance of Payments Manual, the Eurostat FATS Recommendations Manual 2012, the OECD Benchmark Definition of FDI 4<sup>th</sup> edition and the International Merchandise Trade Statistics: Concepts and Definitions, 2010.

Among others, the following concepts and definitions are explained:

- Modes of supply
- Resident-nonresident transactions in services, and partner country attribution
- Foreign affiliates, controlling unit, and partner country attribution
- Valuation of services
- Time of recording of the transactions

### Chapter 2 Legal framework

*Scope.* This chapter deals with the legal framework within which statistics on the international supply of services are collected, compiled and disseminated. It includes, for instance, the legal mandate of the

institution responsible for data collection to survey traders or enterprises, and by the same token the duty of enterprises to respond. The role of the legal framework in protecting the rights of enterprises and individual traders through its confidentiality clauses will be elaborated. The chapter will cover also the legal acts defining the roles and responsibilities of national statistical offices, central banks, ministries of trade and other governmental institutions involved in the compilation of trade in services statistics and Foreign Affiliates Statistics (FATS) and which are at the basis of many institutional arrangements.

*Structure.* The chapter may include the following sections:

- A. The importance of the legal framework for trade in services statistics and FATS
- B. Legal acts governing content and availability of data sources
- C. Legal acts regulating institutional arrangements
- D. Legal acts protecting confidentiality of reported data
- E. Country practices

### **Chapter 3 Institutional arrangements**

*Scope.* The chapter is intended to describe challenges and good practices in setting up effective institutional arrangements between various agencies involved in compilation of statistics on the international supply of services such as national statistical offices, central banks, ministries of trade and others. It will provide details of country experiences in setting up such arrangements under various circumstances, including the specificity of national legal frameworks.

*Structure.* The chapter might consist of several sections:

- A. Purposes of and need for institutional arrangements
- B. Characteristics of effective institutional arrangements
- C. Main types of institutional arrangements, governance and mechanism of cooperation
- D. Institutional arrangements and data quality
- E. Country practices

## **Part II Data Collection**

### **Chapter 4 Introduction and overview of data sources within the modes of supply framework**

*Scope.* This chapter will serve as an introduction to the other chapters of Part II by briefly describing the main data sources and their main advantages and shortcomings in the context of the modes of supply framework. It will also cover the distinction between direct and indirect reporting, and the relationships between the various data sources and policy options regarding their use. This chapter should also explain where applicable the role that IT can play in the data collection process as well as the roles of quality management and metadata. These aspects will be further developed in Part V on cross-cutting issues.

## **Chapter 5 Registers and survey frames**

*Scope.* The chapter is intended to highlight the central role of the statistical business register in the organization of data collection. The characteristics of the business registers relevant for the collection of trade in services and foreign affiliates data will be described. Good practices in establishing and maintenance of the business registers under various circumstances will be discussed to assist countries. An overview of the uses of business registers and survey frames will be provided in the context of resident-nonresident trade in services, FATS and Modes of Supply.

*Structure.* The chapter may include the following sections

- A. Purposes of statistical business registers and survey frames
- B. Characteristics and minimal requirements for statistical business registers and survey frames
- C. Creation and maintenance of a statistical business register and survey frames
- D. Use of registers and survey frames for sampling purposes
- E. Use of a statistical business register in linking various data sources
- F. Country experiences

## **Chapter 6 Enterprise and establishment surveys**

*Scope.* This chapter describes enterprise surveys, which are needed to obtain information on services transactions relevant to resident-nonresident trade in services or FATS. An integrated approach is to be promoted so that the survey framework, when designed, should take into consideration of response burden of the companies, as well as linking trade in services and business statistics. In particular, the chapter might focus on a general description of enterprise and establishment surveys; types of surveys, organization of surveys; and advantages and shortcomings of surveys. The chapter may also provide a description of how some specific services industries function.

*Structure.* The chapter will adopt within each section a sufficiently generic but practical approach by first describing the basic principles of a set of surveys covered in this chapter, then providing information as to what ideally should be collected from the perspective of MSITS2010 (including form examples) and then describing some country examples. References to actual country survey forms will be included, and these forms will be made available in a central repository on the web. The chapter may consist of the following sections:

- A. General description of enterprise or establishment surveys
- B. Types of surveys (including a threshold-based census-survey, "exploratory" data collection and benchmark surveys)
- C. Survey design
- D. Sampling techniques
- E. Survey explanations, training of respondents, exchanges with respondents
- F. Resident-nonresident services transactions
  - (i) Generic Trade in Services Survey
  - (ii) Transportation surveys
  - (iii) Manufacturing services surveys

- (iv) Insurance surveys
- (v) R&D surveys
- (vi) Tourism activities (supply side)
- (vii) Other specific surveys (e.g. health, legal, financial, education, IT enabled services, or intellectual property products surveys)
- G. Foreign affiliates statistics and the international supply of services
  - (i) Structural business surveys
  - (ii) Foreign affiliates surveys
  - (iii) Foreign direct investment surveys in the context of FATS
  - (iv) Coordinated Direct Investment Survey in the context of FATS
- H. Combined trade in services-FATS surveys
  - (i) Construction surveys
  - (ii) Other

## **Chapter 7 Surveys of persons and households**

*Scope.* This chapter describes surveys of persons and households, which are needed to obtain information on services transactions relevant to SITS. In particular, the chapter might focus on general description of household surveys; organization of such surveys; and their advantages and shortcomings.

*Structure.* It is proposed to adopt a similar approach as for the previous chapter, (generic to specific with a description of country experiences in each section and country examples stored in a central repository). The chapter may consist of the following sections:

- A. General description of persons and household surveys
- B. Survey design, survey explanation, training of interviewers, sampling techniques
- C. Household surveys (including travel expenditures)
- D. Border surveys
- E. Surveys of visitors
- F. Labour force surveys

## **Chapter 8 International Transaction Reporting System**

*Scope.* This section describes mandatory data reporting system for international transactions, which is often referred to as the International Transaction Reporting System (ITRS). The ITRS is generally originated from foreign-exchange regulations but countries' systems have evolved to include not only reporting from resident banks but also direct reporting from transactors. Data reported by banks are mainly based on settlements but transaction data have been reported in particular cases (netting etc.). Some countries adopt reporting thresholds for the ITRS. In recent years, the threshold amount has been raised in some countries to reduce reporting burdens, leading to a loss of coverage especially for the compilation of certain services. Against the background of such an evolution of the ITRS, details on advantages and limitations of ITRS in the context of the data collection on various SITS data fields (e.g., value, classification, partner country) will be provided.

*Structure.* The chapter may consist of the following sections:

- A. General description of ITRS (could include types/models of ITRS)
- B. Use of ITRS for compiling SITS (advantages/disadvantages)
- C. Thresholds and their problems and solutions
- D. ITRS records for use in establishing business frames
- E. Country experiences

## **Chapter 9      Administrative records**

*Scope.* This chapter describes administrative records, which can be used to obtain information relevant for resident-nonresident transactions in services, as well as other types of information relevant in the context of the recommendations of MSITS2010. In particular, the chapter might focus on general description of administrative records; and their advantages and shortcomings.

*Structure.* The chapter may consist of the following sections (including country experiences):

- A. General description of administrative records
- B. Customs records for use in freight and insurance services
- C. Immigration information and entry/exit records for use in estimating the BOP travel item, as well as for estimating non-monetary indicators (e.g. for mode 4 or mode 2)
- D. Tax records for use in establishing business frames
- E. Country experiences

## **Chapter 10     Other data sources**

*Scope.* This chapter will describe all other relevant data sources. It will in particular present how these can be used for collecting useful information for resident-nonresident transactions in services, FATS and non-monetary indicators on modes of supply.

*Structure.* The chapter may consist of the following sections (covering country experiences):

- A. General description of other data sources (e.g. credit card records, mobile phone records) and specific examples in use for services transactions, FATS and non-monetary aspects of modes of supply.
- B. Other data sources for collecting data on services transactions and FATS:
  - a. Credit card records
  - b. Mobile phone records
  - c. Business associations

- d. Financial statements of companies
- e. Chambers of commerce
- f. Investment promotion agencies
- g. Private databases

### **Chapter 11 Comparing data sources**

*Scope.* This chapter will more profoundly describe the advantages and shortcoming of the various data sources for responding to all information needs of MSITS2010 and give country experiences as to these advantages and shortcomings. It will provide guidance on the assessment of the cost x benefit analysis of each data source.

## **Part III Data Compilation**

### **Chapter 12 Introduction and overview of data compilation within the modes of supply framework**

*Scope.* This chapter reiterates the four modes of supply and the importance of compiling sufficiently detailed resident-nonresident trade in services and foreign affiliates statistics, as well as additional information. It also shows the importance to compile the four modes of supply by distinguishing the modes within each of the resident-nonresident trade in services categories, as well as by distinguishing mode 4 within the statistics of foreign affiliates.

### **Chapter 13 Integration of data from different sources**

*Scope.* Statistics on the international supply of services are compiled from a number of sources. Therefore, identification of good practices in data integration is of a critical importance. To merge and cross-check data collected from various sources is quite a complex and time-consuming activity. For instance, in order to produce resident-nonresident trade in services statistics, merging ITRS or other administrative data with enterprise or other survey data will require a careful planning. For FATS, merging information from the structural business statistics and FDI surveys/registers, or other types of linking may need to be carefully tackled. Challenges can even occur while merging different information from the same kind of data source. The chapter highlights a number of issues that need to be addressed, such as (a) matching similar data elements available from different sources; (b) working out conceptual differences between sources; (c) matching data with different levels of detail; (d) working out issues of delays resulting in unsynchronized reception of data; (e) overlaps in the information provided and (f) the overall efficient use of all data sources. Besides finding appropriate methodological solutions, some practical solutions may include running training programmes for staff and conducting regular meetings between staff of compiling and source agencies/entities (including staff of large importing and exporting enterprises) to establish stable and efficient working arrangements; and to develop estimation and imputation procedures to deal with the issue of missing data fields.

*Structure.* The chapter may consist of the following sections:

- A. General description of integration of data from different sources
- B. Consolidation of the data
- C. Issues encountered when merging data
- D. Possible approaches and solutions
- E. Country experiences

#### **Chapter 14    Compilation of resident/non-resident trade in services statistics**

*Scope.* This chapter will recap and extend on the BPM6 compilation guide focusing on the statistical processing aspects. It will provide examples of good practices in compilation of resident/non-resident trade in services statistics.

*Structure.* The chapter might consist of several sections (including country practices):

- A. General description of compilation of resident/non-resident trade in services statistics
- B. Compilation for individual service categories
  - (i) Manufacturing services on inputs owned by others
  - (ii) Repair services
  - (iii) Transportation services
  - (iv) Travel (in particular in relation to tourism statistics)
  - (v) Construction
  - (vi) Insurance services
  - (vii) FISIM
  - (viii) Computer services, Call centers and Business Process Outsourcing (BPO) Services
  - (ix) Intellectual property products
    - o Audiovisual
    - o Software
    - o R&D
    - o Franchises/trademarks
    - o Other
  - (x) Classifying appropriately transactions in BPM6/EBOPS
  - (xi) Compiling complementary groupings for audiovisual transactions, cultural transactions, software transactions, other business services
  - (xii) Other complementary groupings: call-centre services, environmental transactions, etc.
- C. Modes of supply and resident/non-resident transactions
- D. Services transactions between related enterprises

#### **Chapter 15    Compilation of FATS and the international supply of services**

*Scope.* This chapter will describe the compilation of foreign affiliate statistics, including confidentiality issues and possible exchange of data among countries.

*Structure.* The chapter might consist of several sections:

- A. General description of compilation of foreign affiliate statistics
- B. Compiling specific FATS variables focusing on (services products or industries)
  - (i) Sales
  - (ii) Output
  - (iii) Value added
  - (iv) Trade variables
  - (v) Employment (of which intra-corporate movements with breakdown to mode 4, and more generally foreign employment)
  - (vi) Other FATS variables (priority and other recommended variables)
  - (vii) Breakdown by type of product
  - (viii) Compiling services as secondary activities of manufacturing or other industries (i.e. ISIC sections A to F)
- C. Dealing with consolidated and unconsolidated data: establishments, enterprise and enterprise groups (in particular in cases of regional headquarters)
- D. Defining the ultimate controlling institutional unit (UCI) through indirect means (i.e. when information not available in a register or not directly collected)
- E. Treating the activities of special purpose entities
- F. Evaluating the validity of reported data
- G. Confidentiality and suppression of data
- H. Specific issues for the compilation of inward FATS
- I. Specific issues for the compilation of outward FATS

## **Chapter 16    Compilation of other indicators for modes of supply**

*Scope.* This chapter will describe the compilation of the other indicators, in particular non-monetary aspects, of the modes of supply. The chapter will in particular discuss the compilation of statistics on the number of mode 4 persons.

*Structure.* The chapter might consist of the following sections (including country compilation practices):

- A. General description of compilation of other statistics on modes of supply (with a particular focus on mode 4)
- B. Compiling the number of persons moving under mode 4 regimes

## **Chapter 17    Estimation and modeling of missing data, forecasting or back-casting**

*Scope.* This chapter describes the use of models and estimates to complement the observed SITS/FATS data which are frequently needed because (1) part of the information cannot be collected or can be gathered only at an unsustainable cost; (2) the available sources cannot provide the required coverage, detail, frequency and/or timeliness foreseen by the international standards; and (3) the various sources to be combined in the collection system are partially overlapping; (4) limitations of estimating and modeling

In principle, the full spectrum of statistical methods and techniques can be used for these purposes. It is in particular common (a) to impute data gaps and missing replies, and correct suspect outliers etc; (b) to forecast and compensate for lack of timeliness of data sources; (c) or to back cast and revise time series backward to incorporate newly available historical data or after a break, for example due to a change in

estimation methodology, compilation system, or conceptual standards. Models and estimates can be also used to verify the plausibility of the collected data.

## **Part IV Data Dissemination**

### **Chapter 18 Introduction and overview of data dissemination within the modes of supply framework**

*Scope.* This chapter reiterates the four modes of supply and the related issues of quality assurance and data dissemination. It shows the need for a combined dissemination of the traditional BOP-based resident-nonresident trade in services transactions and foreign affiliates statistics while distinguishing among the four modes of supply. It also discusses the dissemination of non-monetary statistics relating to the four modes of supply.

### **Chapter 19 Data Dissemination**

*Scope.* This chapter describes the factors to take into consideration, when establishing the dissemination policy, in particular given the various types of statistics considered in the framework of MSITS2010. Some factors cover timely release of data; revision policy; cooperation with government entities, with compilers of balance of payments, merchandise trade statistics and national accounts, with users, with mass media; clarification of types of data issued; and the use of information technology to improve the data dissemination.

*Structure.* The chapter might consist of the following sections:

- A. Factors to consider in data dissemination:
  - (i) Variables to be made available;
  - (ii) Timeliness;
  - (iii) Statistical confidentiality;
  - (iv) Revision policy;
  - (v) Users;
  - (vi) Ways of dissemination, use of IT technology and transmission standards;
- B. Combining resident-nonresident trade in services statistics, FATS and other statistics
- C. Combining trade in goods with trade in services;
- D. Country practices

## **Part V Cross-cutting issues**

### **Chapter 20 Quality management**

*Scope.* This chapter will provide an overview of quality management at the level of the responsible agency, in particular when it comes to resident-nonresident trade in services statistics and FATS. Major quality issues will be identified and discussed, including issues related to the editing of data, the responsibilities of each agency and minimum requirements for data quality. Further it will describe the

measurement of quality and the process of producing quality reports and provide examples and best practices.

*Structure.* The chapter might consist of the following sections with a particular focus on resident-nonresident trade in services statistics and FATS:

- A. Quality management:
  - (i) An overview of the main elements of national quality management frameworks;
  - (ii) Quality management of the basic data sources;
  - (iii) Quality management at the compiling agency;
  - (iv) Country examples and best practices;
- B. Quality measurement and reporting
  - (i) An overview of the main elements of quality measurement and reporting to statistics users;
  - (ii) Country practices of quality measurement and reporting;
- C. Country practices on data quality related to inter-agency collaboration;
- D. Country practices of reconciliation studies, cross-country comparability and bilateral data exchanges.

## **Chapter 21    Metadata**

*Scope.* This chapter will describe all the information about the trade in services data and FATS as well as about other relevant statistics which should be considered metadata. It explains that metadata are relevant for the correct understanding of the content, coverage and limitations of the data, and should guide users on the correct interpretation of the trade statistics. Metadata exist at various levels of detail, namely at the overall level indicating what the coverage of the trade statistics is, and how data were collected and processed; at the next levels information can be given about the main data variables, such as commodity classification, country nomenclature and country coverage, or valuation, and on specific trade flows. This chapter will further provide advice and examples on how best to present and disseminate the metadata, in particular in relation to resident-nonresident trade in services statistics and FATS. Metadata should be consistently presented; they should be comprehensive and still easily accessible.

*Structure.* The chapter might consist of the following sections:

- A. Description of metadata for resident-nonresident services statistics and FATS:
  - (i) Coverage;
  - (ii) Limitations and data quality;
  - (iii) Deviations from recommendations;
  - (iv) National nomenclatures;
  - (v) Specific trade flows;
  - (vi) Access;
- B. Presentation and dissemination of metadata;
- C. Country practices.

## **Chapter 22 Use of Information and Communication Technology**

*Scope.* This chapter will describe the use of ICT in all aspects of the compilation process, which includes electronic administration of surveys, electronic capturing of data, IT and data processing, database management, electronic dissemination and web publishing.

*Structure.* The chapter might consist of the following sections:

- A. Description of the use of Information and Communication Technology for trade statistics:
  - (i) At data collection stage;
  - (ii) At data compilation stage;
  - (iii) At data dissemination stage.

## **Annexes**

- A. Classification issues**
- B. Trade indices**
- C. Seasonally adjusted data**
- D. Relationship between statistics on international trade in services and international merchandise trade statistics and issues with their integrated presentation**