

CHAPTER 5: INTERNATIONAL MERCHANDISE TRADE STATISTICS

A. Introduction

1. International merchandise trade statistics (IMTS) measure quantities and values of goods that, by moving into or out of a country, add to or subtract from a nation's material stock of goods. IMTS are compiled from report forms or from electronic transmissions sent by importers and exporters (or their agents) to the customs and excise agency or to the IMTS compiler, which in many cases would be the statistical agency. Balance of payments compilers in most countries rely on IMTS to compile the goods item in the balance of payments and, in some countries, IMTS are used in compiling other items in balance of payments accounts.

B. International Guidelines on IMTS

Relevance of the International Guidelines on IMTS to Balance of Payments Compilation

2. International guidelines on concepts and definitions used in the compilation of IMTS are outlined in “International Merchandise Trade Statistics: Concepts and Definitions—2010” (*2010 IMTS*)¹. The balance of payments compiler should be aware of the guidelines of the *2010 IMTS* and the extent to which they are, or are not, implemented by customs and national statistical authorities in the compiler's country. The guidelines of the *2010 IMTS* do not fully conform to the principles of the *2008 SNA* and the *BPM6*. Customs records essentially reflect the physical movement of goods across borders, whereas the *BPM6* requires the balance of payments compiler to measure goods on a change of ownership basis. Subsequent sections of this chapter elaborate on differences between the *2010 IMTS* and the *BPM6*.

Coverage of IMTS

3. The *2010 IMTS* states that international merchandise trade statistics record all goods which add to or subtract from the stock of material resources of a country by entering (imports) or leaving (exports) its economic territory. The material resources of a country are those located on its economic territory whether owned by residents or by non-residents. The *2010 IMTS* follows the *BPM6* and *2008 SNA* in defining economic territory as the area under the effective economic control of a single government. It follows therefore, that the coverage of imports and exports as defined in the *2010 IMTS* would differ from the coverage of merchandise credits and debits in the *BPM6* as the former would include goods not owned by

¹ “International Merchandise Trade Statistics: Concepts and Definitions 2010,” United Nations (New York, 2010).

residents and exclude some goods owned by residents. The following table summarizes the main areas of divergence between 2010 IMTS and BPM6 and the corresponding adjustments that should be made.

Table 5.1 Reconciliation Between 2010 IMTS and BPM6

Item	2010 IMTS	BPM6
Goods for processing	All goods for processing are recorded when they enter or leave the economic territory, irrespective of whether a change in ownership takes place.	Goods for processing without change in ownership are excluded. If the goods are sold to a third economy after the processing, the value of the goods (including the value of processing) is recorded in BPM6 as an export of the economy of the owner and an import of the third economy. The value of processing is recorded as an export of services of the processing economy and an import of services of the economy of the owner.
Migrants' personal effects	Physical movements of migrants' effects are recommended to be included in IMTS	These are excluded from BOP because there is no change in ownership.
Returned goods	Exported/imported goods that are subsequently returned are included in imports/exports and identified as reimports/ reexports at the time when they are returned.	Revised entries should be made to exports and imports, and the transactions should be voided, preferably for the period when the goods were initially recorded.
Goods imported for projects by non-resident construction enterprise	The IMTS records all goods imported for construction projects by nonresident enterprises.	Where construction projects are not sufficiently substantial to constitute a branch of the enterprise, goods imported for construction projects by nonresident enterprises are excluded from trade in goods in the balance of payments. (They are a component of the value of construction services.)
Goods which cross borders as a result of shipments to a related party	These are included in IMTS, irrespective of whether a change of ownership occurs.	BPM6 records a trade in goods transactions only if it can be determined that there is a change of ownership.
Goods transferred from or to a buffer stock organization	These are included in IMTS.	BPM6 excludes goods temporarily exported or imported, such as goods for storage, if no change of ownership takes place.
Goods lost or destroyed in transit	Goods lost or destroyed after leaving the exporting country but before entering the importing country and after the ownership has been acquired by the importer are excluded from IMTS of the importing country but separately	When ownership has already been transferred, the goods transactions are to be included in the balance of payments. No goods transaction will be recorded if ownership of the goods did not change.

	recorded. When goods are lost or destroyed after leaving the exporting country but before entering the importing country when ownership has not been acquired, an export would be recorded in <i>IMTS</i> .	
Goods under merchanting	These are excluded from <i>IMTS</i> .	<i>BPM6</i> records goods under merchanting separately as a negative export when acquired by a resident from a nonresident, and as an export when sold by a resident to a non-resident.
Goods entering/leaving the economic territory illegally	These are recommended to be excluded from <i>IMTS</i> but to be recorded separately.	These are included in general merchandise (as well as smuggled goods that are otherwise legal).
Non-monetary gold	Transactions in non-monetary gold, between residents and non-residents that enter or leave the economic territory are included in <i>IMTS</i> .	Transactions in non-monetary gold between residents and nonresidents are recorded even when there is no physical movement.
Media	Recorded and non-recorded media are included in <i>IMTS</i> . The exceptions are media used for carrying customized software or software written for a specific client or originals of any nature. In practice, however, the exclusion of the latter may not be possible since they fall under the same classification heading.	The <i>BPM6</i> includes in general merchandise only non-customized packaged software and video and audio recordings, on physical media such as disks and other devices, with a license for perpetual use.
High value capital goods	Goods are recorded at the time when they enter or leave the economic territory of a country.	Goods are recorded according to the time that the economic ownership is conveyed from the seller to the buyer. The time of ownership change could be a progressive change based on stage payments or in full on delivery.
Valuation of imports	<i>IMTS</i> recommends a CIF-type valuation for imports.	<i>BPM6</i> requires a FOB-type valuation for imports.

4. On the other hand, it is noted that the *2010 IMTS* and *BPM6* now have consistent treatment of the following items where conceptual differences previously existed. Mobile equipment that changes ownership while outside the country of residence of its original owner is now recommended to be included in *IMTS*, parallel to the treatment in *BPM6*. Fish catch, minerals from the seabed and salvage sold from national vessels in foreign ports or from national vessels on the high seas to foreign vessels are also now included in *IMTS*, similar to *BPM6*. Goods procured in port by carriers are also included both in *IMTS* and *BPM6*.

General Trade and Special Trade Systems

5. The *2010 IMTS* outlines the measurement of trade flows on the basis of (1) the general trade system and (2) the special trade system. It notes that the general trade system is in use when the statistical territory coincides with the economic territory². Under the *general trade system* the time of recording should be the time when goods enter or leave the economic territory of the compiling country. For merchandise trade statistics collected through a customs-based data-collection system, the time of recording is approximated by the date of lodgment of the customs declaration (that is the date when customs accepts the declaration for processing). If such dates differ considerably from the date when goods actually cross the border of the economic territory (e.g., if goods are cleared well in advance or after their arrival) or non-customs data sources are used (e.g., enterprise surveys) more appropriate dates should be identified and used (e.g., the date of arrival/departure of the goods carrier as indicated in the transportation documents). It is the responsibility of countries' statistical authorities to identify (or estimate) the best proxy date of the general guideline on time of recording by taking into account the peculiarity of national rules on administrative procedures and the need in consistency in the application of the selected method.
6. The *special trade system* is in use when the statistical territory does not coincide with the economic territory; thus, some goods that enter or leave the economic territory are not covered in imports or exports statistics and, on the other hand, other goods that are traded within the economic territory are covered in imports or exports statistics. There are various definitions of special trade that countries may apply but traditionally the *strict* and the *relaxed definitions* are differentiated.
7. The *strict definition of the special trade system* is in use when the statistical territory comprises only the area within which goods "may be disposed of without customs restriction". Consequently, in such a case, imports include only goods entering the free circulation area of a compiling country and exports include only goods leaving the free circulation area of a compiling country. Under the strict definition, goods imported for inward processing and goods which enter or leave an industrial or commercial free zone or customs warehouses and have not been cleared through customs for free circulation area would not be recorded in imports statistics. Also, under this definition goods that leave the free circulation area and enter one of the abovementioned zones will be included in exports of goods.
8. The *relaxed definition of the special trade system* is in use when (a) goods that enter a country for or leave it after inward processing and (b) goods that enter or leave an industrial free zone are also recorded and included in international merchandise trade statistics together with goods entering and leaving the free circulation area. However, goods that enter or leave

² The *2010 IMTS* defines statistical territory of a country as the territory with respect to which trade data are being compiled.

a commercial free zone³, and goods that are entering or leaving customs warehouses are not recorded if they have not been cleared through customs for free circulation area.

9. Chart 5.1 illustrates the import and export flows entering and leaving different zones of an economic territory.

10. Goods entering the port (imports) can be categorized into the following groups: goods that are cleared through the customs into the free circulation area (M1); goods that enter the industrial free zones (A1), goods that enter the premises for inward processing (B1)⁴, goods that enter the commercial free zones (C1), and goods that enter the customs warehouses (D1). The last group of flows (E1) relates to direct transit trade which is not subject of goods statistics.

11. The red arrows in the chart indicate the possible flows of goods between different zones of economic territory, including (i) flows of goods from industrial and commercial free zones, as well as from premises for inward processing and customs warehouses (A3, B3, C3, and D3) that are cleared through customs for free circulation area, and (ii) flows of goods from free circulation area that are cleared through customs for industrial and commercial free zones, premises for inward processing, and customs warehouses (A4, B4, C4, and D4).

12. Under the general trade system, the import flows will be equal to $M1 + A1 + B1 + C1 + D1$. Under the strict definition of special trade system, imports will cover $M1 + A3 + B3 + C3 + D3$, while under the relaxed definition of special trade, imports will be equal to $M1 + A1 + B1 + C3 + D3$.⁵

13. Goods leaving the port (exports) include the following groups: goods exported from the free circulation area (X1)⁶; goods exported from industrial free zones (A2), goods

³ A “free zone” (or “customs free zone”) means a part of the territory of the State where any goods introduced are generally regarded, insofar as import duty and taxes are concerned, as being outside the customs territory. In a commercial free zone, the permitted operations are generally limited to those necessary for the preservation of the goods and the usual forms of handling to improve their packaging or marketable quality or to prepare them for shipment such as breaking bulk, grouping of packages, sorting and grading and repacking. In an industrial free zone, processing or manufacturing operations are allowed.

⁴These can be any premises where goods can be conditionally relieved from payment of import duties and taxes (under the customs procedure known as inward processing). Such goods must be intended for re-exportation within a specific period after having undergone manufacturing or processing. Depending on the customs regulation, premises for inward processing may be specially designated areas or any premises, provided that other conditions for inward processing are complied with. [IMTS, 2010 (as submitted for reproduction and translation in March 2011), para 26].

⁵ When goods from industrial or commercial free zones, or from inward processing zones and customs warehouses are cleared through customs for free circulation area, the trader files the appropriate documentation at customs changing from one customs regime (e.g., inward processing) to another customs regime (e.g., direct importation).

⁶ This export includes domestically produced goods with or without imported inputs and goods previously imported that are re-exported.

(continued)

exported from premises for inward processing (B2), goods exported from commercial free zones (C2), goods exported from customs warehouses (D2). Group E2 represents goods leaving the economic territory under the direct transit.

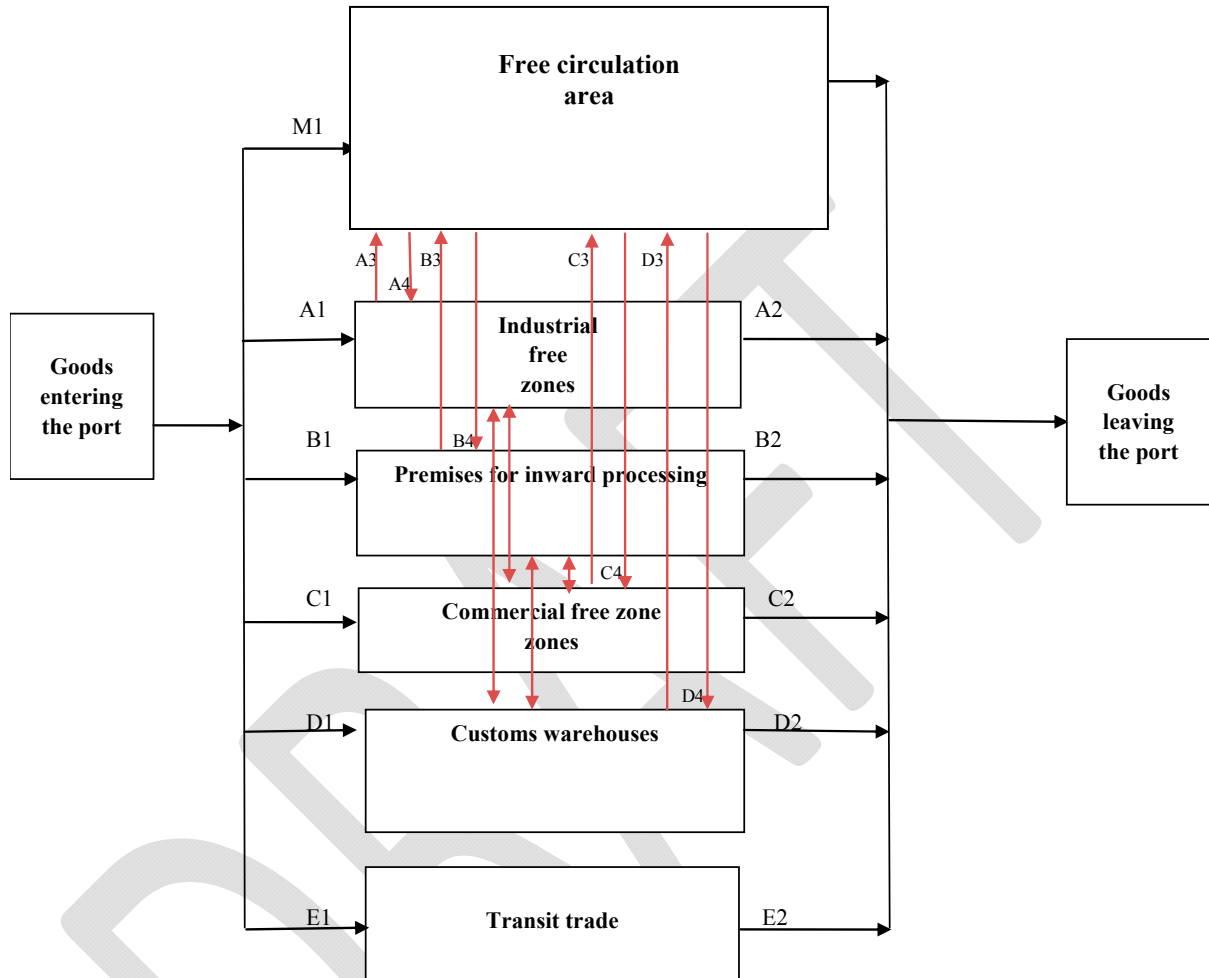
14. Under the general trade system, total exports will be equal to $X1 + A2 + B2 + C2 + D2$, while under the strict definition of special trade system, exports will be equivalent to $X1 + A4 + B4 + C4 + D4$ and under the relaxed definition of special trade system exports will sum $X1 + A2 + B2 + C4 + D4$. As in imports, exports will not include goods in transit (E2) under both the general trade system and special trade system.

15. The *2010 IMTS* recommends that the general trade system be used for compilation of both import and export statistics. The *BPM6* stresses that measurements for balance of payments compilation should be the basis of a change of economic ownership rather than on the general trade system (goods entering or leaving an economy) or the special trade system (goods cleared by customs). The general trade system appears to be a better proxy for measuring change of ownership because it provides broader coverage and the date of change of ownership may be closer to the date goods cross the national frontier (shipment date) than to the date goods clear through customs. Some countries that use the special trade system should make coverage adjustments in the balance of payments for goods that cross the border and are not included in IMTS or goods that do not cross the border but are included in IMTS. The balance of payments compiler should attempt to ascertain the impact on the balance of payments of the time of measurement used in IMTS. In some countries where it is known that the clearance or shipment date for certain significant goods does not coincide with change of ownership, the balance of payments compiler selectively substitutes data from other sources.

16. Under the strict definition of special trade system, two main limitations in imports statistics are observed compared to the *BPM6* requirements: (1) omission of goods that enter the four zones other than free circulation area and are re-exported without passing through the free circulation area; and (2) inconsistency in the timing of recording when goods enter the free circulation area from other zones. The timing difference occurs since the ownership has already changed when goods entered the zones while their recording in goods statistics will be only when they enter the free circulation area. The same limitations apply under the relaxed definition, except that the omissions and inconsistencies in timing will only involve goods going to commercial free zones and customs warehouses.

17. In the case of exports, the main limitation of special trade system is that it may cover goods that actually do not leave the economic territory. Particularly, for strict definition, it may cover goods going out of the free circulation area into the other four zones, and for the relaxed definition, it may cover goods going out of the free circulation area into commercial free zone and customs warehouses.

Chart 5.1 Import and Export Flows



Commodity Classification

18. The *2010 IMTS* outlines the various classifications that are used to classify international trade and goods. These include the Standard International Trade Classification (SITC) and the Harmonized Commodity Description and Coding System (HS). The *2010 IMTS* also presents the relationships of these classifications to other classifications such as classification by Broad Economic Category (BEC).

19. SITC is mainly used for trade analysis. Its commodity groupings reflect the materials used in production, the processing stage, market practices and uses of the products, the importance of the commodities in terms of world trade, and technological changes. The HS is an international nomenclature for the classification of products that allows classification of traded goods on a common basis for customs purposes. It is recommended that countries use

HS for the collection, compilation, and dissemination of IMTS. BEC is intended to categorize trade statistics into large economic classes of commodities and to supplement the summary data compiled on the basis of the sections of the Standard SITC. An understanding of these classifications is important for balance of payments compilation, publication, analysis, and projection.

Valuation

20. IMTS guidelines provide an explanation of the difference between the transactions value, which is the price actually paid by the importer, and the value declared for customs purposes, which is typically the value recorded in IMTS. The guidelines also trace the development of customs valuations. Most countries have adopted, for purposes of valuing imports, the recommendations in the *Agreement on Implementation of Article VII of the General Agreement on Tariffs and Trade 1994 (GATT) (WTO Agreement on Customs Valuation)*.⁷ This agreement essentially accepts the importer transaction values. However, customs officials can, under certain conditions, adjust such values if they think importer valuation is based on avoidance (for example, by false invoicing or use of artificial transfer prices) of some part of the import duty. The recommendations in the agreement also define the valuation to be adopted for imports for which no accompanying movements of cash or credit take place. From examination of available evidence, it appears that, in practice, the customs valuation for total recorded imports exceeds, under Article VII of GATT, the transactions valuation by a small margin. As such, the customs value may be considered a reasonable proxy for the transactions value when the WTO basis of valuation is used. However, the balance of payments statistics compiler may have to investigate the actual situation to determine whether a valuation adjustment should and can be made. .

21. A specific valuation issue concerns the point of valuation, namely, whether goods are valued at the importer's border—that is, at the cost, insurance, and freight (c.i.f.) value at the importer's border—or at the free on board (f.o.b.)⁸ value at the exporter's border. The *2010 IMTS* recommends the adoption of the c.i.f. valuation for imports whereas, for balance of payments compilation purposes, the f.o.b. valuation is required. In view of this requirement, the *2010 IMTS* recommends that supplementary data be collected for imports valued on an f.o.b. basis. Sampling import entries is suggested as a possible means by which this data could be gathered. The guidelines recommend that exports be recorded on an f.o.b. basis, a practice that is consistent with balance of payments requirements.

⁷ *The Results of the Uruguay Round of Multilateral Trade Negotiations: The Legal Texts*, World Trade Organization, Geneva, 1995: Agreement on Implementation of Article VII of the General Agreement on Tariffs and Trade 1994, Part I, "Rules on Customs Valuation."

⁸ The FOB applies only when goods are dispatched from the exporting country by sea or inland waterway. When other means of transport are used for exports and FOB is not applicable, "Free Carrier" (FCA) at port of export can substitute for it. If neither FOB nor FCA are applicable (e.g., exports by railroad or pipeline), "delivered at frontier" (DAF) of the exporting country may be used.

22. Neither the f.o.b. nor the c.i.f. basis may represent the contract price, which depends upon delivery arrangements made by the importer and the exporter. Therefore, many bases of valuation are possible in practice, and the f.o.b./c.i.f. bases may require some degree of estimation by compilers. Some countries do not adhere strictly to the f.o.b. or the c.i.f. basis. In the IMTS procedures adopted by the European Union for the measurement of intra-union trade flows, information is collected on the basis of contract price, and adjustments are made to place the statistics on the valuation basis required by international standards.

23. An additional valuation issue concerns currency conversion. The *2010 IMTS* states: "(a) where the conversion of currency is necessary for the determination of the customs value, the rate of exchange to be used shall be that duly published by the competent authorities of the country of importation concerned and shall reflect as effectively as possible, in respect of the period covered by each such document of publication, the current value of such currency in commercial transactions in terms of the currency of the country of importation; (b) The conversion rate to be used shall be that in effect at the time of exportation or the time of importation, as provided by each Member."

24. An equivalent approach to conversion should apply for both imports and exports. In cases when both buying and selling (official/market) rates are available, the rate to be used is the midpoint between the two, so that any service charge (i.e., the spread between the midpoint and those rates) is excluded. If a rate is not available for the date of exportation or importation, it is recommended that the average rate for the shortest period applicable be used. An assessment of the exchange rates prescribed by customs law or regulation and their conformity to balance of payments recording principles should be made by the balance of payments compiler. This assessment should be accompanied by an investigation of actual practice. Adjustments should be made if inappropriate conversion of import and export values from foreign currencies to the unit of account causes significant errors in balance of payments accounts.

25. How do these valuation principles compare with balance of payments compilation requirements? For balance of payments purposes, the point of valuation required for both exports and imports is f.o.b. When a c.i.f. or other valuation is provided, the balance of payments compiler should estimate the freight and insurance components separately to arrive at an f.o.b. valuation. The balance of payments compiler essentially requires a market price for valuing trade. The transactions price is usually a good proxy for market price; in exceptional cases of transfer pricing for transactions between affiliated enterprises, other market-equivalent values could be substituted. An exchange of information with counterpart economies may be useful in this respect.

Quantity Measurement

26. The guidelines explain various quantity measures required for IMTS. While the balance of payments compiler essentially compiles data in current values, quantity measures should be of interest and should be considered for inclusion in any analysis accompanying balance of payments statistics. Some quantity measures of goods will also be essential for the balance of payments compiler charged with making projections of balance of payments goods series.

Partner Country Classification

27. Trade in goods classified by partner country provides the basis for compilation of a regional balance of payments statement in respect of goods. The guidelines present various concepts that could be used to determine partner country classification and provide a useful discussion of each. For a more extensive discussion of this issue, refer to Appendix V of this Guide.

Compilation of IMTS

28. Source documents for IMTS are, in most countries, customs declaration forms (or electronic transmissions sent by traders or their agents to customs officials in lieu of customs declaration forms). These forms are designed to reflect the various trade flows identified in chart 5.1.

29. In a general trade system, forms identify trade flows M1, A1, B1, C1, and D1 for imports and flows X1, A2, B2, C2, and D2 for exports. Forms for a strict definition of special trade system substitute A3, B3, C3, D3 for A1, B1, C1, D1, respectively, for imports and A4, B4, C4, D4 for A2, B2, C2, D2, respectively, for exports. Forms for a relaxed definition of special trade system include M1, A1, B1, C3, D3 for imports and X1, A2, B2, C4, D4 for exports. Goods in transit (E1 and E2) are omitted from both general and special trade systems. Some IMTS systems measure both general and special trade. In these systems, all trade flows (except goods in transit) shown in chart 5.1 are measured.

30. Individuals arriving in, and sometimes departing from, a country are generally required to complete declaration forms. Data (on the value of goods declared) from such documents may be used to estimate expenditure on travel if the value does not exceed a given customs threshold. However, goods for resale are included in general merchandise. There is usually a form for goods sent by parcel post, and the declared value of such goods should, in principle, be recorded in IMTS.

31. Under the procedures developed for measuring IMTS in the European Union, enterprises report directly to the IMTS compiler, rather than customs, in respect of intra-union trade.

32. Customs procedures may have an impact on the recording, and hence on the quality of IMTS. A customs procedure is a treatment applied by the customs to goods which are subject to customs control, and serves as basis for the identification of the flow of goods.

33. Finalized customs documents are usually sent to the national statistical office where staff process the documents and compile the IMTS. In many countries, the timeliness of IMTS is very good; both broad aggregate and detailed statistics become available within a month after the reference period.

34. Some factors leading to IMTS of good quality are:

- IMTS compilers should be well versed in international statistical guidelines and should follow them closely by encouraging customs officials to collect relevant data or by making supplementary inquiries of importers and exporters;
- IMTS compilers should maintain close contact with users, such as balance of payments and national accounts compilers, to resolve difficult conceptual and treatment issues and to harmonize whatever treatments are adopted;
- IMTS compilers should undertake independent coverage checks and introduce appropriate coverage procedures;
- IMTS compilers should undertake a number of validation checks, such as price to quantity (unit value) checks on data, and query cases that lie outside the norm.

Uses of IMTS in International Accounts

35. IMTS serve many purposes. In most countries, IMTS provide basic data for compilation of the goods item in the balance of payments. IMTS may be used, either directly or indirectly, in the compilation of transportation services; services associated with technology transfer, entertainment, and the renting of equipment; and goods provided under foreign aid programs. IMTS may also provide listings of enterprises that are engaged in goods transactions and/or important recipients of international finance, providers of trade credit, and acquirers or providers of other services. An IMTS system could therefore be used in creating a population listing for a balance of payments enterprise register, a subject that is discussed in **Chapter XXX**.

36. Widely ranging data are collected on IMTS forms. Of most interest to the balance of payments compiler are the value of goods, the commodity classification, the quantity, the shipment date (the date the goods arrive in port for imports or leave port for exports), the mode of transport and residency of transport operator, the currency of the transaction, and the method of payment.

37. The balance of payments compiler should be familiar with the actual practices adopted in compiling IMTS in order to identify the strengths and weaknesses of IMTS. Of particular concern are: (1) lags between the dates of shipment or clearance and the processing of documents (such lags may cause timing problems when IMTS are used in balance of payments compilation.); (2) the valuation of certain exports for which final prices may not be known at the times of export (particular problems could be the valuation of agricultural and mining products); and (3) duty-free goods that are subject to less attention by customs officials (often, duty-free goods—especially exports and government and defense imports—may not have documents created for them). Finally, there may be problems with nonrecording of smuggled goods.

38. International guidelines for IMTS are not fully implemented in all countries. Also, the guidelines do not provide definitive directions in all cases, and IMTS compilers must make some choices. Nor are the guidelines in the *2010 IMTS* fully consistent with balance of payments accounting principles specified by the *BPM6*. Therefore, working with the IMTS

compiler, the balance of payments compiler should first review national IMTS to identify differences between IMTS and balance of payments requirements. Then, an attempt should be made to quantify such differences. If possible, the balance of payments and IMTS compiler should arrange for adoption of suitable procedures to correct significant differences. Corrective activities may include encouraging customs authorities to modify procedures, collection (by the IMTS or balance of payments compiler) of additional data directly from enterprises, or provision of additional disaggregations via the IMTS. Sometimes it may be more appropriate for special adjustments to be included in the balance of payments compilation process because, from a balance of payments viewpoint, some perceived inadequacies of IMTS may arise merely from the different conceptual basis of IMTS and balance of payments statistics.

39. IMTS also provide input to the rest of the world account of the national accounts. (Ideally, the link should be through the balance of payments compilation system.) IMTS can be used directly and indirectly to compile goods statistics in current and constant price terms that are seasonally adjusted or unadjusted and accompanied with relevant implicit price deflators. For many analyses, goods should be classified according to various broad commodity groups. At a more detailed level, IMTS are an important input into the compilation of input/output tables.