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INTERNATIONAL TRADE STATISTICS: A REVIEW OF CONCEPTS AND DEFINITIONS

Report of the Secretary-General

SUMMARY

   At the eighteenth session, the Statistical Commission requested the Statistical Office of the United Nations to convene an expert group to consider possible revisions to the recommendations contained in the publication International Trade Statistics: Concepts and Definitions and to suggest ways and means of promoting such recommendations and of ensuring that they are used more effectively. Such an expert group was convened in December 1977.

   The present document is based on discussions by the Expert Group on International Trade Statistics and the documentation prepared for it. It follows the publication International Trade Statistics: Concepts and Definitions in terms of the subjects covered and their sequence. Thus, it reviews briefly the main aspects of international trade statistics: sources and uses (paras. 8-10), comparability (paras. 11-17), definition of merchandise trade transactions (paras. 18-35), systems of trade (paras. 36-43), commodity classification (paras. 44-46), valuation (paras. 47-56), quantity measurement (paras. 57-61) and partner country (paras. 62-66). After a brief discussion of each of these topics, the recommendations of the Expert Group are put forward.

   The Expert Group agreed that in view of important developments in the pattern of demand for international trade statistics and changes in the capability of compiling and disseminating these statistics, the publication International Trade Statistics: Concepts and Definitions should be revised. Such a revision would be essential as a basis for countries to adopt more standard and comparable concepts for the compilation of their statistics on international trade.

   The Commission may wish to comment on the conclusions reached by the Expert Group, to endorse its recommendations and to suggest directions for further work.

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INTRODUCTION

1.   In most countries, international trade statistics are compiled as a by-product of certain kinds of government operations. In spite of sharing similar features, the statistics differ in their details from one country to another, partly because the national, political, economic and administrative contexts in which they are collected, compiled and used vary. As a result, figures prepared by different countries, which should be comparable, often are not; this tends to reduce their usefulness and at times their credibility. As long ago as 1928 the problem created by their lack of comparability was recognized by the League of Nations. 1/ In the post-war period, the United Nations Statistical Commission took the initiative to urge Governments to adopt standard definitions and methods of compilation as a means of increasing the effectiveness of these statistics.

2.   At its thirteenth session, in 1965, the Statistical Commission requested that, as a matter of priority, the Statistical Office of the United Nations Secretariat compile and publish "recommendations for the definition and statistical treatment of the main categories of commodities in the inward and outward flows of international trade". 2/ The Statistical Office responded by preparing the International Trade Stastics: Concepts and Definitions. 3/

3.   In the past 10 years, not only has interest in bilateral comparisons of international trade statistics as published by partner countries been heightened but the capacity to display detailed statistical comparisons on a bilateral or even multilateral basis has increased many-fold. For example, the Statistical Office has published matrices at the three-digit level of the Standard International Trade Classification (SITC), Revised, in volume II of the Yearbook of International Trade Statistics since 1974. These matrices show how, for each pair of partner countries and for each of the three-digit categories of the SITC, statistics that should be identical (from a conceptual point of view) differ at times by unacceptably large margins. Several countries have carried out studies in which their trade statistics are systematically compared with the counterpart statistics of some of their more important trading partners. For example, Malaysia has compared the statistics on its trade with the Federal Republic of Germany and Japan with the statistics published by those two countries. The Netherlands has drawn up plans to compare statistics on trade with the Federal Republic of Germany with the counterpart data. But the first break-through in this field was a thorough and complete study of discrepancies in trade statistics conducted by a joint Canada-United States team. 4/

1/ League of Nations, International Convention relating to Economic Statistics, signed at Geneva, 14 December 1928.

2/ Official Records of the Economic and Social Council, Thirty-ninth Session, Supplement No. 13 (E/4045), para. 177 (1).

3/ United Nations publication, Sales No. E.70.XVII.16.

4/ The Reconciliation of United States-Canada Trade Statistics, 1970 (Ottawa, United States-Canada Trade Statistics Committee, 1973).

4.   The reconciliation of the trade statistics of Canada and the United States of America revealed that the failure to adopt comparable standards in concepts and definitions could mask serious deficiencies in the statistics themselves and pointed towards the desirability of promoting standardization not only to improve comparability but also to help uncover problems of quality with the statistics. These matters were reflected in greater detail in "International trade reconciliation study" (E/CN.3/454), which was presented to the Statistical Commission at the eighteenth session.

5.   In reviewing this study, the Commission recognized the value of measures of statistical discrepancies for improvements in the quality of statistics on international trade and took note of the potential embarrassment that could result when these statistics were used for bilateral or multilateral trade negotiations and yet differed significantly from the statistics presented by other parties to such negotiations. Accordingly, the Commission recommended, inter alia, that an expert group be convened to consider possible revisions to International Trade Statistics: Concepts and Definitions. The Commission also recommended that means should be found to promote the wider use of standard concepts and definitions for the compilation of international trade statistics. 5/

6.   In conformity with that request, an Expert Group on International Trade Statistics was convened in New York in December 1977. The present document is based on the background papers prepared for the Group, in particular one prepared by the Secretariat and Statistics Canada, 6/ and on the recommendations made by the Expert Group.

I.   ACTION BY THE COMMISSION

7.   The Commission may wish to comment on the conclusions reached by the Expert Group, to endorse its recommendations and to suggest directions for further work.

II.   INTERNATIONAL TRADE STATISTICS

A.   Sources and uses

8.   With few exceptions, the sources of international trade statistics are the administrative documents required to be filed by importers and exporters when clearing merchandise inward or outward through the customs administration of their country. Moreover, in most countries these statistics are compiled either partly or entirely within customs. This fact has always had a profound effect on the character of the trade statistics themselves. For example, the classification of commodities is generally governed by the classification used by

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5/ Official Records of the Economic and Social Council, Fifty-eighth Session, Supplement No. 2 (E/5603), para. 104.

6/ "Concepts and practices in international trade statistics" (ESA/STAT/AC.5/2).

the customs to determine duties payable. The valuation of goods that enter the statistics usually reflects their appraised value for customs purposes. Other aspects of the underlying concepts and the method of processing of trade statistics are also affected by the legal, regulatory and administrative requirements of the customs.

9.   Recent developments, particularly the use of electronic data processing and efforts to simplify trade documentation and to expedite customs clearance procedures, have had, or will have, equally important effects on the system of compiling trade statistics. This is because, in some countries, the records taken from customs documents are increasingly being viewed as a data base which can be used to improve, among other things, the operation of customs. For example, information taken from customs documents may be used to control the flow of merchandise, to maintain financial accounts with agents or brokers and to support other administrative functions. Eventually, these documents may come to be regarded as the source of a generalized data-base system, one of the by-products of which will be what we have come to know as trade statistics.

10.   The collection of data compiled from customs documents is used for a variety of purposes, ranging from the purely administrative to the statistical. These purposes place very different demands on the basic data. At one extreme are the administrative demands, such as the management of the customs and the application of its legislation. At the other extreme is the demand for statistics to be used in balance-of-payments or national accounts. Since the administrative uses usually require the identification of individual transactions or business firms, they typically demand more detail and precision than do purely statistical uses of the data.

B.   Comparability

11.   There are many uses that require that economic and social statistics be internationally comparable. One such use requires meaningful aggregations of regional or economic groupings of countries without which global economic studies cannot be conducted. Another use is the comparison of a particular country's performance with that of another country or group of countries. In addition, many international comparisons required for commercial and financial negotiations must be based upon aggregate economic data of this kind. In the case of trade statistics (indeed in the case of all components of balance-of-payments accounts) the need is somewhat greater. This is because some of the more fruitful analyses of trade statistics start from a matrix of world flows of commodities in trade. But in order to construct such a matrix, international standards are required both for the conceptual framework of the statistics and for their classification into commodities. This need for uniformity extends to the greatest levels of detail when the data are used for international negotiations on customs duty rates, as in the General Agreement on Tariffs and Trade.

12.   The "International trade reconciliation study" 7/ contains many examples and illustrations of discrepancies that exist between counterpart measures of the

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7/ E/CN.3/454; and in The Reconciliation of United States-Canada Trade Statistics, 1970, pp. 12-16.

same trade flows. Users of international trade statistics are no doubt well aware
of these discrepancies and of the serious problems they cause. Nor is there any
doubt that the reason for some discrepancies is that many countries are not in a
position to follow the recommendations for standard concepts and definitions
given in <u>International Trade Statistics: Concepts and Definitions</u>. The extent
to which national practices diverge from those recommended internationally is a
matter which requires full documentation. But, in addition, there is the question
of why there are many countries that have not been able to follow these
recommendations and what can be done to improve matters to make international
trade statistics comparable.

13. International trade statistics are among the oldest data regularly collected.
They present virtually no problems of sampling or response or opportunities for
questionnaire design and may, therefore, be of limited interest for the
professional statistician. In many countries, the contents of the source documents
are related primarily to the needs of the customs service; conceptual issues are
more often settled by tradition than by systematic analysis. The immense
difficulty of making changes in the design of the source documents or of
implementing specific changes in processing discourages statisticians from
attempting to alter the data at the source. Accordingly, a habit has developed,
out of necessity, of making essentially imputed adjustments to the customs-
processed data before incorporating them into balance-of-payments or national
accounts. These adjustments do not preclude statisticians from taking for granted
the accuracy and integrity of the statistics, largely as a result of the
comprehensive and detailed nature of the data on which they are based.

14. International inconsistencies can to some extent be reconciled by means other
than harmonization of concepts and definitions. The United States of America and
Canada have succeeded in reconciling very substantial inconsistencies in their
bilateral statistics by methods that were described in the "International trade
reconciliation study". 8/ But the experience of these two countries is an
exceptional one, involving powerful motivation on both sides, no language
problems, highly compatible automated data processing systems and the fact that
distances are relatively small and there is no transit through a third country.
Such conditions are not found everywhere. Moreover, as the North American
experience demonstrates, such studies are expensive and must be continued
indefinitely to prevent new inconsistencies from arising. This experience also
demonstrates that such studies could hardly be conducted when more than two
countries are involved. Standardization of concepts and definitions should
provide a more permanent, albeit partial, solution and for that reason may turn
out to be a more effective basis from which to address the problem.

15. In spite of serious obstacles, it should be possible to solve, at least in
part, the problem of inconsistent concepts and definitions. The documentation
required by many customs agencies contains enough detail to allow trade figures
to be collected according to more than one concept. Some countries have taken
advantage of high-speed data processing to tabulate trade data according to
several concepts. For example, the United States of America is now able to report

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8/ Ibid.

trade on either a "general" imports or a "special" imports basis, and according to three different measures of value (customs value, f.a.s. value and c.i.f. value). The Federal Republic of Germany and the Nordic countries record the country of purchase or sale in addition to the country of origin and destination; Panama compiles both gross and net weight; and the Philippines records imports on both an f.o.b. and a c.i.f. basis. Other examples could no doubt be cited. It appears, though, that few countries have developed a capacity to make full use of the information available on the customs documents and associated invoices, although for many of them the processing and tabulating advantages of the computer are at hand. Yet this flexibility should make it possible to report statistics on both the traditional national basis and on an international standard basis, provided that the necessary information can be taken from the customs documents.

16. The role of electronic data processing in the compilation, storage and retrieval of trade statistics is bound to become increasingly important. Customs administrations' growing interest in these data to feed management information systems will certainly pull in this direction, as will international efforts to simplify trade documentation procedures and more sophisticated use of computers. The cost of the initial capture of data from many thousands of administrative documents is high, whether this is accomplished manually or by the use of mechanized or electronic data-capture means. In contrast, the cost of storage of large masses of data in an electronic data-processing system is relatively low and so is the cost of retrieving and cross-tabulating them. Nor does this latter cost increase substantially if additional descriptive variables are added to the data records. Indeed, one of the most attractive features of such systems is their capacity to permit the storage of records with multiple definitions of the same variable. For example, it is relatively easy in an EDP medium to record both the country of origin and the country of consignment of an import transaction. From a systems-point of view, there are no conceptual obstacles to the storage of an almost unlimited array of descriptions of each of the basic trade data records. In this direction may lie the solution to the so far intractable problem of incompatibility between the various national concepts and definitions, without the need to modify substantially national practices in the compilation and publication of the statistics. While for many countries this solution may appear at this time to be difficult and expensive, no other solution is in sight. In the longer run, technological developments should reduce the costs and problems associated with data capture.

17. Another issue is the relationship between the statistics on international merchandise trade and those on international cargo transportation. In some countries, both these sets of statistics are produced from the same file of documents held with customs; in other countries, both the customs documents and the transport documents already provide the necessary information to integrate the two.

C. Definition of merchandise trade transactions

18. The definition given in International Trade Statistics: Concepts and Definitions covers the definitions both of "merchandise" and of "transaction"

for purposes of international trade statistics: "Merchandise in international trade shall include goods which add to or subtract from the stock of material resources in a country as a result of their movement into or out of the country" (chap. I, para. 2). It may be noted that this definition differs fundamentally from the balance-of-payments definition, which requires, generally, both the crossing of the frontier and a change in ownership. The application of the ownership concept is impractical in the processing of trade statistics for a number of reasons, including the sheer volume of transactions.

1.   Definition of merchandise

19.   At least two issues arise from the definition of merchandise. The first is in connexion with gold, the treatment of which in International Trade Statistics: Concepts and Definitions reflected its acceptance as a standard of value and an element of national monetary reserves (chap. I, para. 8). Since gold is no longer a standard of value, it is suggested that non-monetary gold transactions be included in regular trade statistics. SITC, Revision 2, provides the possibility of identifying gold in the commodity detail in item 289.01 and subgroup 971.0. 9/ Monetary gold transactions should remain as they were.

20.   The second issue relates to the fact that some commodity movements appear to represent a service transaction much more than a traditional movement of physical merchandise. As a result, the values of the commodities in question contain an element of cost that is not related to the production cost of the commodity itself but rather to that of the associated service. Examples are blueprints whose commercial value reflects the costs of preparing them, films and videotapes whose value is not the marginal cost of an additional copy but a part of the production cost of the original, and computer tapes with data registered on them whose value may represent the economic rent of the specialized programmes prepared by the supplier. The growing importance of such transactions in international trade suggests the need for some systematic analysis of their treatment.

21.   Most members of the Expert Group agreed that these transactions should be recorded only at the value of their material support. It was further agreed that a conceptually satisfactory means of identifying such transactions should be developed.

2.   Definition of transactions

   (a) Temporary trade

22.   International Trade Statistics: Concepts and Definitions defines temporary transactions of a traditional kind (chap. I, para. 7):

        "Certain goods are sometimes imported or exported with the reasonable expectation of subsequent re-export or re-import within a limited time. Most common types of these goods are:

     9/ Standard International Trade Classification; Revision 2 (United Nations publication, Sales No. E.75.XVII.6).

(a) Tourists' and travellers' effects (including vehicles);

(b) Animals for racing and breeding;

(c) Goods for exhibition only;

(d) Returnable samples and returnable containers; /10/

(e) Goods shipped only for temporary storage;

(f) Vehicles engaged solely in the carriage of goods or passengers
between countries." /10/

23. It was generally agreed by the Expert Group that items temporarily admitted
should not be included and that the recommendation in International Trade Statistics:
Concepts and Definitions should stand. However, it was thought that a thorough
definition of tourists' and travellers' effects was required in any future version of
an international standard.

24. There are however a variety of temporary transactions of other kinds,
particularly between adjacent countries with considerable transborder economic links.
Examples include heavy machinery entered by contractors for a project and
re-exported on completing the project; dies or moulds loaned without charge between
affiliated companies; and many other goods that go across borders and for which the
intention is that they be returned in a short period of time. The value of these
can be quite substantial, especially for developing countries where these materials,
when they are re-exported, may make up a significant proportion of total exports,
and where non-standard treatment in different countries' trade statistics can lead
to significant discrepancies. Moreover, customs authorities may use a variety of
procedures to control and document these transactions, some of which will impede the
process of identifying and classifying them. In addition, some of the transactions
may be duty-free and therefore no reference may be made in documentation to their
temporary nature, excepting perhaps the affiliation of consignor and consignee and
the fact that they are not sold. Case-by-case approaches to such transactions are
very costly and may not succeed in identical treatment at import and at export.

25. It was recognized by the Expert Group that the recording of these transactions
in re-exports was not wholly satisfactory. It was agreed that a principle should be
developed to guide statistical agencies in deciding whether to exclude such
transactions from regular statistics, although it was also agreed that a record of
all such transactions should be kept.

26. Goods imported on lease are also increasing in importance in trade and these
present similar problems. The criterion for treatment must set out whether a
lease transaction constitutes the import of a service or of a commodity. The
length of the lease is often uncertain and whether the goods are leased or sold
may be a function of administrative or tax arrangements rather than of genuine
distinctions based on purpose or length of time. The Expert Group agreed that

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10/ Once they have been recorded for the first time.

goods imported on a lease of less than one year should be excluded from regular statistics, although they should be recorded separately. Conversely, goods leased for one year or more should be included, notwithstanding the practical difficulties in obtaining values for such goods.

(b) Repair and improvement trade

27. Conceptually, repair and improvement trade takes place through the movement of a commodity to make possible the purchase of a service. However, this guideline cannot be homogeneously applied. Repair and improvement transactions range from the return of a new product for replacement of an insignificant defective component to the return of, for example, a worn-out aircraft engine for a complete overhaul. The situation is complicated by the methods used by customs to deal with such cases; these methods vary from country to country and may not meet statistical requirements. The majority of countries now exclude repair and improvement trade from regular statistics but some include it at full value.

28. In this context, an important conflict arises between balance-of-payments accounting conventions and trade or national accounts conventions. Goods exported or imported for processing are clearly to be recorded as merchandise transactions for national accounts purposes. An issue related to this conflict is the boundary between "repair and improvement" trade and "processing" trade, which is far from clear in the example of an aircraft engine cited in paragraph 27, above.

29. The Expert Group agreed that International Trade Statistics: Concepts and Definitions did not provide suitable definitions of repair, improvement and processing and that a revision of the document should take this into account. It was further agreed that repair and improvement trade should be excluded from regular statistics but recorded separately. It was also agreed that the value of goods for processing should be included in regular statistics.

3. Other issues

(a) Trade on government account including foreign aid

30. Some developing countries exclude aid and government imports, while a few developed countries exclude exports for foreign aid or emergency relief. Conceptually, it seems difficult to distinguish, in exports from developed countries, between direct exports for aid or relief and those financed indirectly through financial transfers. Of course, the exclusion of any such trade may lead to discrepancies in counterpart statistics. Limits to the inclusion of this trade in statistics may be considered necessary by national Governments. For example, considerations of secrecy or national security may require that these standards be ignored or that details be suppressed. Accordingly, it was agreed by the Expert Group that these transactions should be recorded and included in international trade as much as possible. The same recommendations were applied to trade in military goods. All these transactions, if excluded from regular statistics for compelling reasons, should nevertheless be recorded separately and systematically.

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(b) **Transactions in which both national boundaries are not crossed**

31. This class of transactions presents formidable problems with respect to the achievement of symmetrical recording by the exporting and importing country. The main categories of transactions appear to be the following:

(a) Exports of marine vessels that are to engage in international traffic;

(b) Exports of drilling rigs which are to operate in international waters;

(c) Exports of bunkers, stores, ballast and dunnage to aircraft or marine vessels in international traffic;

(d) Imports of fish caught in international waters and direct exports of fish by domestic fishing vessels; and

(e) Imports of ores mined in international waters or in the sea-bed.

32. Althouhh for each of these types of transactions there exists in theory a partner country to be credited, in normal practice the partner country will not receive a customs document that will allow the transactions to be recorded. The difference between recorded world imports and exports is particularly striking where ships and vessels are concerned (Group 735 of SITC, Revised): $US 15 and $US 6.6 billion, respectively, in 1975 for world exports and world imports. The difference between the two is equivalent to the total exports of Egypt, India, Pakistan and Turkey.

33. There was general agreement in the Expert Group that in view of their importance in world trade, vessels and bunkers should be included in foreign trade statistics although it could be difficult to determine their country of destination. It was realized that achieving consistency was not only a problem of definition but also a problem for subsequent economic analysis of the statistics that were being compiled. It was recommended by the experts that national publications should be explicit about the concept used to identify the partner country in these transactions. It was also recommended that for purposes of reporting to international agencies, for certain kinds of economic analysis and for bilateral negotiations, it might be desirable to impute such transactions to an unspecified country.

34. The Expert Group also agreed that imports of fish directly from fishing grounds through foreign flag vessels and direct exports of fish by domestic fishing vessels to foreign harbours presented problems similar to those encountered in the case of trade in vessels or bunkers. Accordingly, similar solutions should be applied.

35. In what follows, it seemed convenient to arrange the material under the following headings: present recommendations; impact on discrepancies; present national practices; and recommendations of the Expert Group.

D. Systems of trade

1. Present recommendations

36. In chapter I, paragraph 40 of International Trade Statistics: Concepts and Definitions, it is suggested that countries use the "general" system of trade, which treats the geographical border of the country as the statistical border. Strictly speaking, the general system counts imports at the time of their arrival at the geographical border whether these be:

(a) Entered directly through customs for consumption;

(b) Entered into customs bonded warehouses; or

(c) Entered into bonded facilities or zones.

Exports under the "general" system correspondingly include all outbound movements across the geographical frontier whether these be:

(a) Exports of domestically produced or processed goods;

(b) Exports of goods processed in bonded facilities;

(c) Exports of imported goods that have cleared customs but that have not been transformed; or

(d) Exports of imported goods, from customs bonded warehouses or bonded facilities, which have not been transformed.

Type (c) and (d) exports are usually designated "re-exports".

37. The main alternative to the "general" system is the "special" system. It differs from the general system in the treatment of imported goods into customs bonded warehouses or "duty-free zones". These goods are counted only if and when they are withdrawn from warehouses or free zones for home consumption and, of course, they are not counted at all in export statistics unless they have first crossed the customs frontier inward. Conceptually, under the special system the statistical frontier coincides with the boundary represented by the customs administration.

2. Impact on discrepancies

38. The most serious effect of the use of the "special" trade system on international comparability of trade statistics arises when movements of goods through bonded customs warehouses, bonded zones or bonded facilities are not recorded separately. This failure violates the principle of double entry of transactions by the two partner countries.

3. Present national practices

39. On the basis of the latest information available, some 80 countries or

reporting customs areas, accounting for 46 per cent of world trade, employ the "special" system; while 70 countries, or reporting customs areas, accounting for 54 per cent of world trade, use the "general" system. The centrally planned economies of eastern Europe are counted as countries on the "general" system, although it appears that the "special" system would yield almost identical statistics for most of these countries. An examination of the list of countries by system used suggests that a combination of historical tradition and commercial circumstances determines which system is likely to be used. Countries that have substantial entrepôt traffic, such as Belgium and the Netherlands, would have their statistics substantially altered if they were to adopt the "general" system. Countries with historical links to continental Europe also tend to employ the "special" system. But countries with historical links to the United Kingdom tend to use the "general" system.

40. The kinds of activities carried on in entrepôt zones and in bonded free-trade zones are, under normal circumstances, very different. The latter usually involve manufacturing and processing activities by national enterprises and employees. These activities could constitute a significant part of national industrial production. Activities in entrepôt zones are usually limited to unloading, warehousing and loading and may not even be carried out by enterprises of the country where the zone is located. Clearly, in countries where simple entrepôt activity is very large, its inclusion in the national accounts through the trade statistics would unduly inflate the over-all aggregates. At the same time, the exclusion of significant industrial activity in free-trade zones could distort these accounts in the opposite direction. If the distinction between entrepôt and free-trade zones can be made, both conceptually and in practice, there may be grounds for different treatment of the two kinds of activity, even though both are located outside the customs boundary.

41. None the less, entrepôt activity would form an essential part of a system of international transportation statistics. Some countries collect trade and transportation statistics in a fully integrated manner (e.g. the United States of America), while others have the documentation available to do so. Such countries possess the means to tabulate import statistics on either a general or a special basis. But the greatest obstacle to the creation of a fully harmonized trade and transportation statistics system is not being able to obtain the same set of detailed commodity and other information about transactions in bonded facilities as is obtained about transactions which cross the customs frontier, when they are subject to more rigorous documentary requirements. Short of obtaining such detail, a base of transportation data expressed in terms of shipping weight, with perhaps some crude commodity detail, can provide a valuable aid to reconciliation of discrepancies, particularly if comparable sets of transportation statistics are available for partner countries.

4.   Recommendations of the Expert Group

42. The members of the Expert Group agreed that different uses of the statistics required different concepts and that therefore there was no merit in preferring one system to the other. They also recognized that it would not be possible to persuade countries to change from the system they were using. Consequently, they

recommended that countries, while continuing to use their current system, should be asked to identify all transactions necessary to compile trade statistics on the basis of the other system. The experts also agreed that data relating to warehousing activity should be separated clearly from data relating to industrial activity carried out in bonded zones or factories. It was recognized, however, that detailed reporting of warehouse operations could be difficult in that it imposed an additional burden on customs. Accordingly, individual countries should use their discretion in deciding on the detail they wished to collect.

43. The experts also recommended that precise definitions of political, customs and statistical borders, national and international waters, warehouses, bonded factories, free-zone areas etc. be given in a revision of International Trade Statistics: Concepts and Definitions. Special attention should be given to methods and procedures for the collection of information on off-shore activities, drilling platforms etc. which are becoming increasingly important in international trade.

E.   Commodity classification

1.   Present recommendations and impact on discrepancies

44. Classification has no impact on discrepancies at the total trade level. Discrepancies due to differences in classification begin to appear as comparisons are made between commodity groups and they become increasingly significant at lower levels of detail. Although it is recommended that all countries report trade data according to SITC, Revision 2, this recommendation alone will not suffice to establish standardized classification practices. An important source of discrepancies between countries using SITC is the variability of applications of the detailed rulings. Standardization must be achieved through the development of clear, concise rulings for all levels of SITC.

2.   Present national practices

45. On the basis of the latest and most complete information available, 64 countries or reporting customs areas use the Customs Co-operation Council Nomenclature (CCCN). Seventy-eight countries or reporting customs areas use SITC and eight countries use some other kind of nomenclature for compiling international trade statistics.

3.   Recommendations of the Expert Group

46. The Expert Group did not discuss nomenclature in detail since there is a Customs Co-operation Council committee at work on the development of a Harmonized system intended to facilitate the description and coding of commodities on all documents associated with international trade. This system which should near completion in a few years, will serve as a basis for revised versions of other nomenclatures such as SITC and the International Standard Industrial Classification (ISIC). The experts noted the need to keep abreast of the latest developments in connexion with the implementation of the Harmonized system.

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F.   Valuation

47.   There are several issues which arise in connexion with the valuation of goods in trade statistics - in particular, the basic value of the goods themselves, the treatment of international transportation and insurance costs, and the locus and timing of valuation.   These issues must be discussed in terms of the need for standardization and in terms of their contribution to discrepancies in counterpart statistics.

1.   Present recommendations

48.   Three different basic valuation concepts are identified in International Trade Statistics: Concepts and Definitions, each of which would occur in a different market.   The transaction value is the value of the goods in the market between exporters and importers, normally measured by the price paid by the importer for the goods in an arm's-length transaction.   (An arm's-length transaction represents trade between enterprises that do not share the same ownership or control.)   The resale value is the value of the goods in the market of the importing country. The domestic value is the value of the goods in the market of the exporting country.   From the point of view of international comparability, the transaction value is the only one of the three that yields the same result in export statistics as in the counterpart import statistics, because each of the other values can be measured by only one of the transactor countries.   The transaction value is generally accepted as the proper value for trade statistics but of course it presents problems in the case of transactions which are not at arm's length. Since such transactions are becoming increasingly important in international trade, the definition of transaction value for non-arm's-length transactions may turn out to be one of the most difficult problems of valuation, because it will be necessary to develop a definition capable of being applied with the same results by both the exporting and the importing country.

49.   The treatment of transportation and insurance costs presents a simple but none the less difficult problem of its own.   If imports are valued on a c.i.f. port-of-entry basis, it is impossible for the exporting country to place the same value on exports.   At the same time, it must be recognized that the c.i.f. value is the appropriate value for imports for a number of purposes relating to the analysis of markets and prices.   National accounts and balance-of-payments concepts provide no guidance in this matter, because the primary requirement for these purposes is to separate payments to residents from those to non-residents and vice versa for receipts.   This does not necessarily coincide with either f.o.b. or c.i.f. valuation, either of exports or imports.   Accordingly, the practice has arisen in many countries of collecting information on payments and receipts for transportation and insurance separately from the trade statistics through a survey of shippers; this will probably continue to be the case.

50.   The terms "f.o.b." and "c.i.f." are employed above as if they did not require definition, but this is not the case.   Chapter III, paragraphs 13-18, of International Trade Statistics: Concepts and Definitions contains extensive discussion of the issues that arise in defining these concepts.   There is also the matter of defining the time at which the goods should be valued.   Of course,

this is not important if the transaction value is accepted in terms of the price actually paid by the importer. In such a case, the time of valuation is clearly the time at which the contract was made between the exporter and the importer. The timing issue becomes important if some other basic definition of value is chosen or if the selling price cannot be accepted because the transaction is not at arm's length. In this case, a number of other timing possibilities are theoretically available, such as the time of change of ownership, arrival of the goods or financial settlement. But in practice, all of these technical issues become subsidiary to the question of basic value of the goods which, therefore, emerges as the most important issue to be resolved.

2. Impact on discrepancies

51. The impact of c.i.f. valuation of imports on discrepancies is well known. The Canada-United States experience has demonstrated that the issue of basic value can also give rise to significant discrepancies in the case of countries with a high incidence of non-arm's-length international trade transactions. Such incidence, of course, is increasing on a world-wide basis with the growth of multinational corporations.

3. Present national practices

52. A recent review of countries or customs areas reporting trade statistics to the Statistical Office of the United Nations Secretariat revealed that all report their exports on an f.o.b. basis and all but 18 report their imports on a c.i.f. basis. Some of the 18 countries reporting imports on an f.o.b. basis can also report them on a c.i.f. basis.

53. Since the values of imported goods shown on customs documents are normally determined in accordance with the customs legislation of the importing country, it is natural that most countries use these values in their import statistics. The customs legislation on the valuation of imports may of course differ from country to country; however, over 70 countries now employ the Brussels Definition of Value in the calculation of import values for customs purposes. The Brussels Definition of Value was developed with a view to standardizing and making as objective as possible the rules applied by customs administrations to determine values on which calculations of duty and taxes are based. International Trade Statistics: Concepts and Definitions (chap. III, para. 21) discusses differences in principle between the Brussels Definition and the valuation principles recommended in International Trade Statistics: Concepts and Definitions. The main difference identified as likely to be significant is that when the declared value on the customs invoice cannot be accepted as a bona fide arm's-length price, the Brussels Definition requires the construction of a notional value as close as possible to the transaction value.

54. To achieve symmetry between the valuation of exports and of imports, it is necessary to employ a definition of basic value that can be applied at the time when the goods are exported as well as at the time when they are imported. In an arm's-length transaction, when the selling price may be taken to be the transaction value at both ends of the transaction, no problems should arise.

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However, when the transaction is not at arm's length, there is no legal definition of value that can reasonably be expected to yield the same results at both ends of the transaction, if only because customs administrations in most countries do not investigate values declared on export documents.

4. Recommendations of the Expert Group

55. It was suggested that the following values for each import transaction should be collected: a transaction value f.o.b. and a transaction value c.i.f. It was pointed out that the costs of freight and insurance were necessary for balance-of-payments estimates. It was also agreed that the recording of an additional value, one that reflected the value recorded in the export statistics of the partner country, would be useful in the identification of discrepancies in counterpart statistics.

56. While some participants were of the opinion that in their countries collection of import valuation on a dual basis would not present difficulties, others were of the opinion that owing to the existence of international conventions on customs documents the collection of imports f.o.b. could present problems and that other means of measuring f.o.b./c.i.f. margins should be available. Sampling could be one of these ways. It was agreed, however, that countries should, as far as possible, follow the suggestion that they should collect multiple values and that the Statistical Office of the United Nations Secretariat should review this problem in consultation with the international bodies engaged in trade facilitation and the design of aligned documents.

G. Quantity measurement

1. Present recommendations

57. International Trade Statistics: Concepts and Definitions notes that quantity data are most useful for economic analysis if collected on a net basis (i.e., excluding packing used to enclose the commodity specified (chap. IV, para. 3)). Where the unit of quantity is other than weight, International Trade Statistics: Concepts and Definitions asks for a conversion factor to permit the calculation of weight data. For transportation analysis, it observes that gross weight information is desirable and recommends that annual data for gross weight by commodity should be compiled. Two exceptions to these rules are given: ships, for which three units of quantity should be reported; and aircraft, for which two units of quantity are recommended.

2. Impact on discrepancies

58. Discrepancies in values are obviously not affected by quantity data. None the less, quantity data can be a useful aid to the resolution of discrepancies in values, e.g., by abstracting from the f.o.b./c.i.f. valuation problem.

3. Present national practices

59. The units of quantity reported vary considerably among countries. The United

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Nations attempts to convert quantity data to kilograms, metric tons, thousands of metres, thousands of square metres, cubic metres, numbers, numbers of pairs and thousands of kilowatt-hours. Most countries report on a net basis. SITC makes no recommendations about the units of quantity that would be most appropriate for reporting trade statistics at the international level.

60. A number of countries tabulate gross shipping weight for all commodity movements, presumably to permit analysis of transportation. The general availability of such data could be a considerable advantage in reconciling trade statistics. Moreover, such data are an essential component of a harmonized system of trade and transportation statistics.

4. Recommendations of the Expert Group

61. The experts were of the opinion that the collection of gross weight could present difficulties in certain countries and that it might be obtained by conversion from net weight through sampling.

H. Partner country

1. Present recommendations

62. The preferred method of identifying partner countries in International Trade Statistics: Concepts and Definitions is the principle of consignment. This is defined, for exports, as "the last country to which the goods were shipped by the exporting country without, as far as is known, any commercial transaction intervening" and, for imports, as "the country from which the goods were first shipped to the reporting country without any commerical transaction intervening between that country and the country of import" (chap. V, para. 7). The reason for this choice is that this principle, combined with a "general" system of trade, ensures symmetrical identification of partner countries. The partner country issue is of secondary importance in balance-of-payments statistics; however, it is worth noting that the recommendation is for a consignment principle combined with a change-of-ownership principle. 11/

2. Impact on discrepancies

63. The symmetrical recording envisaged in International Trade Statistics: Concepts and Definitions is only achieved in the absence of entrepôt activity involving reconsignment of the goods or if the "general" system of trade is employed by all participants in the transaction. It should be noted that if the "special" system of trade is employed, there is no partner-country principle that can achieve symmetry; this is because the last-known destination of exports will in some cases be an entrepôt. In fact, it is clear that all systems of partner-country attribution (except that of country of sale) yield in practice the same results for exports - which result might best be called the "country of last known destination".

11/ International Monetary Fund, Balance of Payments Manual, third edition (Washington, D.C., 1961), para. 461.

64. Such is not the case for imports, where the difference between country of "origin" and country of "consignment" yields in practice substantial discrepancies (namely, statistics on exports to European countries versus European countries' statistics of imports). The country-of-origin principle is further complicated by the fact that the definition of the "country of origin" concept is of paramount importance in customs administration (even in those countries which now employ the consignment principle for statistics). In fact, definitions of country of origin are normally based on customs legislation and may be applied uniformly among different customs jurisdictions.

3. Present national practices

65. The latest available information is that, for imports, 111 countries or reporting customs areas employ a country-of-production or origin principle, 27 employ a country-of-consignment or provenance principle and 13 employ a country-of-purchase principle. For exports, 140 employ a country-of-last-known-destination (or consignment, or consumption) principle while 11 employ a country-of-sale principle.

4. Recommendations of the Expert Group

66. The experts took note of the fact that most countries did not follow the international recommendation and instead used the country of origin in their import statistics. Having taken into account (a) legal and customs requirements for the identification of country of origin in the source documents of international trade statistics, (b) the difficulty of identifying correctly the country of consignment when unforeseen commercial operations occurred between the countries of origin and of import and (c) the advantages presented by the notion of consignment for consistency in trade statistics and for the collection of transport statistics, the experts made the following recommendations: when collecting import data, in addition to the country of origin the country of consignment should be recorded and international trade statistics should be compiled according to the two concepts. The Group recommended, further, that a revision of International Trade Statistics: Concepts and Definitions should include clear definitions of these two concepts. The Group also recognized that operation on the continental shelf requires further studies.

I. General conclusions of the Expert Group

67. As a general conclusion, the experts agreed that international trade statistics deserved continuing attention and that all possible international venues should be explored to intensify these discussions. The experts agreed upon the need for more frequent meetings in the field of international trade statistics with participation of representatives of international agencies with related interests, in order to promote and to review progress in the international standardization of the concepts and definitions employed in the compilation of international trade statistics.

68. The experts also agreed that the publication International Trade Statistics:

Concepts and Definitions was in urgent need of revision in order to update the prescriptions contained therein in line with current practices and feasibility.

69. The experts were of the opinion that the emphasis of the revised publication should be not so much on a list of inclusions and exclusions from the published aggregates in international trade statistics but rather on full recording of the various types of transactions. It should provide clear definitions of various kinds of transactions, in order to have greater international consistency and assist in the analysis of the statistics at the country and at world levels. It was recognized that in view of the multiplicity of uses to which international trade statistics were put, no single solution for their compilation existed and the requirement of multiple recording should be reflected in any new international standard.