I. Introduction

In 2003, the United Nations Statistical Commission called for an update of the *System of National Accounts, 1993 (1993 SNA)*. The purpose of the Update was to bring the guidance available to countries for the preparation of their national accounts into line with the new economic environment, advances in methodological research, and needs of users. The Commission mandated that the Update would not recommend fundamental changes to the SNA, and it identified consistency with related manuals, such as the *Balance of Payments Manual*, as an important consideration.

During a multi-year, multi-stage consultative process, recommendations for change to the SNA were developed. (The process was described in the Progress Reports of the Project Manager, available at [http://unstats.un.org/unsd/nationalaccount/snarev1.asp](http://unstats.un.org/unsd/nationalaccount/snarev1.asp).) In 2007, the Statistical considered the recommendations for change and endorsed the package of recommendations put before it. The incorporation of the recommended changes, now underway, will lead to *1993 SNA, Rev. 1*. *Rev. 1* will be presented to the Statistical Commission in two deliverables: the chapters presenting the framework of the accounts in 2008 and the chapters presenting interpretations and extensions in 2009.

A number of the issues considered during the Update were directly related to globalization. This is not surprising. Globalization in its various facets is, arguably, one of the most important forces shaping social and economic developments in the world today. It affects developed and developed economies, and those that have a long tradition of market orientation and those in transition to a market orientation. Given the emphasis in this Special Conference on transition countries, it is worth noting that a transition country recently initiated the idea of an international seminar to explore the impact of globalization on statistics. (Papers for this seminar, held in the Ukraine in July 2007, are available at [http://www.unece.org/stats/documents/2007.07.global.htm](http://www.unece.org/stats/documents/2007.07.global.htm).)
This paper first presents an overview of the changes related to globalization that are being incorporated into the 1993 SNA, Rev. 1. Then it discusses two changes in more depth, outlining the motivation for change, the recommended change, the implications for GDP and other major aggregates, and the source data considerations.

II. Changes to the SNA related to globalization: an overview

It is useful, first, to establish some common ground. The term “globalization” is widely used to describe the increasing internationalization of financial markets and of markets for goods and services. The OECD’s Handbook on Economic Globalization Indicators (2005) refers to globalization as a dynamic and multidimensional process in which national resources become more and more internationally mobile while national economies become increasingly interdependent.

A feature of globalization that figures prominently in the minds of national accountants is the role played by multinational enterprises (MNEs)—enterprises that, as a result of investment, operate in more than one country. They are seen both as one of the main vectors of the internationalization of economic activity and as a challenge to national statistical systems. Other features of globalization include the following:

- Foreign direct investment as a crucial factor in world-wide industrial restructuring and the development of global industries
- Internationalization of production: multinational origin of product components, services, and capital
- Flows of property income that mirror the complexities of MNEs’ structures and incentives
- Increased movement of workers across national boundaries
- Transfers of technology and other intellectual property internationally
- Substantial interdependence of the various dimensions of globalization (trade, direct investment, technology transfers, capital movements, migration, etc.)

Several changes to be included in Rev. 1 relate directly to one or more of these features. Typically, a kind of transaction or a kind of unit associated with globalization has become more important since the 1993 SNA, and a fuller accounting treatment was seen as useful in light of its enhanced role. In other cases, variants have appeared that called for clearer distinctions. In still other cases, different manuals gave different guidance, so that harmonization was the goal. The changes for the SNA were worked out in coordination with the ongoing revision of the IMF’s Balance of Payments Manual.

For example, one recommended change deals with the allocation for statistical purposes of the activities of enterprises that operate seamlessly in several countries. In the 1993 SNA (following the Balance of Payments Manual, Fifth Edition), an enterprise engaged in operating mobile equipment seamlessly in two or more countries could be regarded as having a center of economic interest in each of the countries where it was recognized by tax and regulatory authorities. SAS, the airline, was the classic case. Rev. 1 will extend this treatment, including to operations such as hydro-electric facilities on border rivers.
and border-crossing petroleum and gas lines. For these enterprises, the total operations will be allocated based on information that reflects the contribution to the operations.

The recording of activities of persons who do not have a permanent residence in any one country was the subject of another recommended change. Rev. 1 will introduce a new item: “personal transfers.” The new item will cover all transfers between resident and non-resident households whether or not the source of the transfer was income from employment or whether or not individuals in the sending and receiving households were related. The earlier item, “workers’ remittances,” will be part of the new item and may be shown as an “of which” item to preserve continuity with past data series.

Two other changes relate to another feature of globalization: the different parts of the production process take place in different countries. The first change is about goods crossing borders for processing without a change in ownership. The second is about goods being purchased from and sold to foreign residents without crossing the new owner’s borders, called “merchanting.” Both of these changes relate to the principle of the change in ownership as the basis of recording a transaction in national accounts. (The box at the end of this section provides some background.) It is these two changes that are discussed in more detail in this paper.

In addition to these specific changes that relate to globalization, the current plan is that one of the chapters in the 1993 SNA, Rev. 1 about interpretations and extensions, to be ready for 2009, will provide some context. Within a discussion of the corporations sector, it is intended that there be a more general discussion of globalization’s challenges for the recording of stocks and flows in a national accounting context.

---

**Background: Basis of Recording for Transactions in Goods**

In the SNA (and the balance of payments), the general principle is that transactions related to goods are recorded when there is a change of ownership. In the 1993 SNA treatment of international transactions, a few exceptions to this principle are noted. Merchanting is one of the exceptions (para. 14.60). In the case of goods sent abroad for processing, the 1993 SNA makes a distinction between goods that lose their identify in the processing and those that do not. When goods lose their identity in the processing, exports and imports are recorded (imputed) even though ownership does not change (para. 14.61).

In contrast, for merchandise trade statistics, the UN International Merchandise Trade Statistics: Concepts and Definitions (1998) does not recommend data collection and reporting on a change-of-ownership basis. The systems of collecting data on merchandise trade run by most countries, which are built on customs data, are not able to implement such an approach. This manual recommends that countries use crossing the border of an economic territory as a general guideline for the inclusion of goods in merchandise trade statistics.
III. Merchanting

Motivation for the review: Merchanting is defined in the *Balance of Payments Manual, Fifth Edition*, as the purchase of a good by a resident (of the compiling economy) from a nonresident and the subsequent resale of the good to another nonresident, without the good entering the merchant’s economy. Merchanting does not appear by name in the 1993 *SNA* text; the chapter on the rest of the world account refers to it only briefly in terms of merchants and commodity dealers. The chapter explains that the recording described, which is for the merchant country to show only the net of the purchase and sale of a good as a service, is an exception to the change-of-ownership principle. This treatment created a global imbalance for merchanting services; that is, the service recorded as an export by one country does not have a balancing import by another country.

Diagram 1 shows the basic structure of the transactions that may be considered merchanting. This structure can apply in three situations, reflecting the different activities of the resident of country C, at the bottom of the diagram.

- The resident of C may be a manufacturer. For example, the manufacturer in C may purchase parts from its subsidiary in country A and resell the parts to another subsidiary in country B for assembling final products.
- The resident of C may be a wholesaler. The wholesaler purchases goods from a manufacturer in country A for resale to its subsidiary for retail sale in country B.
- The resident of country C may be a commodity dealer that settles the account in the commodity. The dealer purchases a commodity from a producer in country A and sells it to a resident in country B.

In each case, goods are shipped directly from A to B, while the ownership changes from A to C and then from C to B. The cash flows are associated with the changes in ownership.
**Recommended change:** In each variant of merchanting, a change of ownership should be recognized. A straight-forward recording under the change-of-ownership principle would show all goods bought and sold by retailers and wholesalers (or by manufacturers) in both imports and exports. Such a recording would inflate those figures by including goods never present in the economy.

Therefore, the recording to be incorporated in Rev. 1, as shown in table 1, is that goods acquired by global manufacturers, wholesalers and retailers, and commodity dealers settling accounts in the commodity should be recorded as negative exports on acquisition and positive exports on disposal. The net between the two should appear in exports of goods. This treatment gives a zero global balance on goods (remedying an imbalance in the current treatment).

### Table 1: Recording of Merchanting

<table>
<thead>
<tr>
<th>Country</th>
<th>Good or service</th>
<th>Export</th>
<th>Import</th>
<th>Good or service</th>
<th>Export</th>
<th>Import</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country C</td>
<td>Services (merchanting)</td>
<td>20</td>
<td></td>
<td>Goods (merchanting)</td>
<td>-80</td>
<td>100</td>
</tr>
<tr>
<td>Country A</td>
<td>Goods</td>
<td>80</td>
<td></td>
<td></td>
<td>80</td>
<td></td>
</tr>
<tr>
<td>Country B</td>
<td>Goods</td>
<td>100</td>
<td></td>
<td></td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Global balance</td>
<td>Services</td>
<td>20</td>
<td>80</td>
<td>Goods</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

The difference (exclusive of holding gains and losses) also appears as the production of a service in the merchant’s economy, consistent with margins applied to domestically produced goods. (When goods are acquired in one period and not disposed of until a later period, these will appear in the merchant’s changes in inventories even though these inventories are held abroad.) With this treatment, the recording of goods is consistent with that of the related financial flows. The revised *Balance of Payments Manual* will have the same treatment.

**Implications and source data.** The recommended recording of gross flows along with the net for merchanting sheds light on a kind of activity that is an important manifestation of globalization for a number of countries, including some transition countries. For the merchant country, the distribution between goods and services would be affected by the change to record the net on merchanting as goods rather than services. GDP, of course, would not be affected.

The new treatment for merchanting recognizes that many goods move from one country to another without a consequential payment from the recipient country to the sending country. For economic analysis within the accounting framework, showing the financial flows takes precedence over showing the physical movements. However, there is also interest in physical movements of goods across borders. For this reason, and in the
interest of the quality of data available for a range of statistics, the merchanting change (and also the good for goods for processing) has implications for the way in which the physical movement, captured in merchandise trade statistics, is reconciled with the balance of payments and SNA. For merchanting, the reconciliation will need to depend on international transactions reporting system (ITRS) data or survey data. It is expected that the reconciliation, which will be important for some countries but will not be needed for others in which merchanting is negligible, will be addressed with trade statisticians.

III. Good for processing

Motivation for the review: The 1993 SNA and the Balance of Payments Manual, fifth edition, treat goods sent abroad for processing differently. The 1993 SNA recommends the recording of gross flows of goods that cross the border (that is, the exports and imports of goods) when the processing is so substantial that the goods lose their identify (practically defined in terms of reclassification of the good at the 3-digit Central Product Classification) even though the ownership of the goods does not change. It does not recommend recording the gross flows for other goods that cross borders for processing but do not change owners; instead it records the net as a service. The Balance of Payments Manual suggests a practical convention that all processing be assumed substantial and that therefore gross flows are to be recorded. This difference between the manuals was the point of departure for the review of this issue during the Update. As the issue was explored it became apparent that the more fundamental question was whether recording of exports and imports should follow the change in ownership of the goods or the physical movement.

Diagram 2 shows the case that raised the question. Country A sends goods to country B for processing. Country B processes the goods and returns them to Country B. The ownership of the goods does not change; throughout Country A is the owner. The 1993 SNA calls for a change in ownership to be imputed if the processing changes the identity of the good so that the exports and imports would be recorded. Thus the values for Country A would be exports of 80 and imports of 100, the value of the processing of 20 being included in the 100 (and not shown separately).
Recommended change: The recommended change is that goods sent abroad for processing be recorded on a change-of-ownership basis. Thus, if the processing is undertaken by an entity that does not take ownership of the good, neither exports nor imports of goods are recorded (see table 2). The processing is a service, for which a fee is paid by the owner of the good. In the case of diagram 2, for country A, neither the export of 80 nor the import of 100 would be recorded; 20 would be recorded as an import of services. This recommended change will affect the recording of transaction within the national economy as well as international transactions, and will have implications for input-output tables.

Table 2: Recording of Goods for Processing

<table>
<thead>
<tr>
<th>Good or service</th>
<th>1993 SNA Export</th>
<th>Import</th>
<th>Rev. 1 Good or service</th>
<th>Export</th>
<th>Import</th>
</tr>
</thead>
<tbody>
<tr>
<td>Country A</td>
<td>Goods (for processing)</td>
<td>80</td>
<td>100</td>
<td>Services</td>
<td>20</td>
</tr>
<tr>
<td>Country B</td>
<td>Goods</td>
<td>100</td>
<td>80</td>
<td>Services</td>
<td>20</td>
</tr>
<tr>
<td>Global balance</td>
<td>Services</td>
<td>0</td>
<td>0</td>
<td>Services</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>Goods</td>
<td>180</td>
<td>180</td>
<td>Goods</td>
<td>20</td>
</tr>
</tbody>
</table>

Implications and source data: The recommended recording of goods for processing, as compared to the present treatment, would reduce exports and imports of goods by the amount of goods shipped out and received for processing, respectively, and would increase service exports and imports by the amount of processing sold and purchased, respectively. The balance on goods and services for a country would not be affected (except due to timing differences between goods movements and the service provision), and so GDP would not be affected.

Examples of processes that are often undertaken on goods owned by others include oil refining, liquefaction of natural gas, assembly (such as of clothing and electronics), and labeling. In some countries, where such processing is significant, the trade balance for goods would change sharply as compared to the present treatment. Further, the trade balance for goods in the national accounts (and in the balance of payments) would differ significantly from the balance on merchandise trade produced from Customs data. The new recommendation for balance of payments statistics is that the gross values of goods sent abroad for processing without change of ownership should be identified as supplementary items in economies where they are significant. The gross values are useful for reconciliation with merchandise trade statistics, which include all goods entering and leaving the country. They are also useful for preparation of supply and use tables and for analysis of processing activities.

The treatment of goods shipped for processing that do not return—goods shipped from A to B and then sold within B and of goods shipped for processing from A to B and then sold to C—are not at issue. The processing is treated as a service.
V. Conclusion

As globalized production processes have become more prominent in the economic landscape, it has become necessary to provide a fuller and more coherent picture if the accounts are to maintain their relevance. The two changes to be incorporated in the 1993 SNA, Rev. 1 on merchanting and goods for processing are important steps toward that picture. Certainly the data requirements are a challenge, and it will be crucial that countries work together to find a way forward.

Selected references

The papers and other materials about the Update are available the project website at http://unstats.un.org/unsd/nationalaccount/snarev1.asp. The discussion papers, recommendations, and country comments on the recommendations can by found by going to http://unstats.un.org/unsd/sna1993/issues.asp. See especially the materials listed for issues 40 (goods for processing) and 41 (merchanting).


OECD, Handbook on Economic Globalization Indicators (2005), is available at http://www.oecd.org/document/44/0,3343,en_2649_201185_34957420_1_1_1_1,00.html.