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Impact of globalization on national accounts

Note by the secretariat

Summary

The document presents a short summary of the issues considered in the draft Guide “Impact of globalization on national accounts” and the main conclusions and suggestions for further work (as presented in Chapter 1 and Chapter 14 of the Guide, ECE/CES/2011/2 Add.1).

The full text of the draft Guide has been sent to all members of the Conference of European Statisticians (CES) for electronic consultation. Subject to the positive outcome of the consultation, the Guide will be submitted to the CES 2011 plenary session for endorsement.

The Guide was developed by the joint United Nations Economic Commission for Europe/Eurostat/Organisation for Economic Co-operation and Development Group of Experts on the Impact of Globalization on National Accounts established in 2007. The aim of the work was to review the main distortions in the compilation of national accounts and related source statistics, as caused by globalization. The Guide is included in the CES work programme for 2011 (ECE/EX/2011/L.4).

I. Introduction

1. The purpose of the guide on “Impact of globalization on National Accounts” is to help users and producers of national accounts statistics to understand how globalization affects the measures of national accounts. It is intended for the use of both economic statisticians in the broadest sense (those concerned with national accounts and the balance of payments, but also with labour market and price statistics) and those who use the data for policy analysis and research. The guide brings together in one place a description of the effect of globalization on national measures, and highlights those areas that will increasingly need attention and resources to maintain the quality of national accounts. It draws extensively on national experience, mostly in the form of case studies annexed to various chapters.

2. Much of the work underlying this guide was undertaken to facilitate the adoption of the revised international standards for measuring economies: the System of National Accounts 2008 (2008 SNA), the International Monetary Fund (IMF) Balance of Payments and International Investment Position Manual, sixth edition (BPM6) and the proposed European System of National Accounts 2010 (2010 ESA). The new international standards are consistent with each other. This is a great strength, and this report describes the effects of globalization as part of this consistent framework.

3. In terms of globalization, the main changes in the international standards are:

(a) The application of the principle of change in ownership of goods has been made universal, resulting in changes to the recording of merchandising and of goods sent abroad for processing and then returned to the owner;

(b) In recognition of the changing structures of production and finance in many economies, guidance is now provided about when Special Purpose Entities (SPE), which can be created by corporations or governments, should be recognized as institutional units, how they should be classified and how their operations should be treated;

(c) The treatment of remittances from the movement of persons abroad has been expanded, with coverage of the flows being closer to the economic reality;

(d) Research and development (R&D), like other types of intellectual property, is recognized as a capital asset, and the income generated by R&D is recorded as production of services.

II. Overview

4. The guide covers the main factors of globalization. Each chapter describes a particular aspect of globalization, and explains how it can affect estimates in national accounts. Guidance is given on how national estimates can be produced, or how statistical collection systems might be improved to maintain the quality of the accounts. Although common threads run through the whole guide, the chapters are arranged in three thematic sections. A summary by section and chapter is given below.

A. Change of ownership

5. In this kind of environment, producers are trying to optimize each step of the production process, often taking advantage of efficient production processes of other firms. Large firms, often multinationals, regularly provide material or semi-processed goods and

specifications to other firms mandated to process or assemble goods for them. Given the reduced barriers to international trade, the processing firm can be in a different country from the multinational principal.

1. Multinational enterprises (MNE) and the allocation of output and value added to national economies (Chapter 2)

6. This chapter describes in general terms the measurement problems associated with the global nature of the production process as exercised by MNEs. MNEs can lower their global tax burden by a number of structural arrangements – affiliates overseas to act as income recipients, holders of intellectual property rights, and units designed to raise loans for use by other units in the MNE. Transfer pricing can cause Gross Domestic Product (GDP) to be misallocated between countries if the transfer prices are not true reflections of the market price.

7. The chapter notes the considerable significance of MNEs in the United States. A case study of the position for Ireland gives some startling figures which show how the economy has been affected by the increase in MNE activity. In order to tackle the many issues introduced by the growing importance of MNEs in the Irish economy, the Central Statistics Office (CSO) in Ireland has set up a consistency unit with responsibility for analysing all aspects of data received from MNEs. While it is evident that such units cannot prevent distortions to certain key statistics (the CSO notes that GDP in Ireland exceeds Gross National Income (GNI) by some 17 percent due in part to the sort of effects mentioned here), they can at least help to identify them and promote consistency across the accounts. Other annexes to Chapter 2 note similar initiatives in the Netherlands, Finland and Sweden.

2. Multinational enterprises, foreign direct investment (FDI) and related income flows (Chapter 3)

8. Chapter 3 describes why high quality data on FDI are needed for compiling international and national economic accounts. It also sets out how a coordinated international survey can play an important role in ensuring that the associated relationships can be measured on a consistent basis across different economies. The survey is the Coordinated Direct Investment Survey (the CDIS) organized by the IMF – a major statistical undertaking with the express purpose of improving the quality and availability of data on FDI used in international and national accounts. Chapter 3 also notes work under way in the European Union to make recording of MNEs' transactions more consistent across Member States. An annex notes work in Russia on the recording of FDI-related transactions.

3. Special purpose entities (Chapter 4)

9. This chapter describes the main characteristics of SPEs. They are subsidiaries of parents in a different country (and therefore constitute separate institutional units), established to hold assets, incur liabilities, and receive and pay out income on behalf of the parent, often for tax reasons. The new standards make clear that they are to be classified as resident in the country in which they are incorporated or registered even in the absence of a physical presence there. How SPEs are treated in the national accounts is set out, in the light of the 2008 SNA and BPM6, with examples in the annexes from the Netherlands, Ireland and Hungary, all countries with numerous entities of this kind.

B. Some issues concerning trade in goods and services, and global manufacturing**1. Goods sent abroad for processing (Chapter 5)**

10. Chapter 5 describes the situation where production chains across several countries involve the export and import of goods for processing without a change in ownership of the goods. The 2008 SNA and BPM6 no longer recommend imputing a change in ownership in these cases. The consequence is that, under the new standards, only a service fee for the processing work is to be recorded in the accounts, and not the import and export of goods on a gross basis. This recording complies with the principle of recording trade flows only where ownership of the goods changes, but will be at odds with the gross recording of goods shown in the International Merchandise Trade Statistics (IMTS). The chapter sets out the impact of the update of the standards from the 1993 SNA to the 2008 SNA on input-output (IO) models and other structural indicators. It recommends a series of changes in data collection and compilation methods to handle the changes, and thereby seeks to provide operational guidance for the implementation of the new treatment of goods for processing. The chapter also explains how the revised treatment affects the analytical use of IO tables.

2. Merchanting (Chapter 6)

11. The IMF's Balance of Payments Manual, fifth edition (BPM5) defines merchanting as "the purchase of a good by a resident of the compiling economy from a non-resident and the subsequent resale of the good to another non-resident; during this process the good does not enter or leave the compiling economy." The concept is the same in the new standards, but the 2008 SNA and BPM6 introduce an important change in treatment. In accordance with the principle that a change of ownership (as where a merchant buys goods and later sells them) should be recorded as a transaction, merchanting will be recorded in the country of residence of the merchant as a negative export of goods when he acquires them, and as a positive export when they are sold on. The merchanting margin is the difference between the two entries. The treatment may be difficult to apply in practice, given that the goods concerned never cross the borders of the country of residence of the merchant. Chapter 6 offers guidance on the identification of merchanting activities in the country of residence of the merchant, and notes the apparent underrecording of merchanting activity at global level (most countries record nothing for merchanting activity). The treatment of merchanting of services is also discussed, with a view to improving consistency of approach across the world. Annexes explain some detailed aspects of the treatment of merchanting, with examples for Ireland; an further annex on Hong Kong relates to both merchanting and processing (the subject of Chapter 5).

12. Chapters 5 and 6 present forms of cross-border processing and merchanting operations of a kind long conducted by traditional producers and trading companies. MNEs however engage in operations with characteristics of both, in which for example a head office in country A arranges for goods produced by an affiliate in B to be shipped to C for further work to be done on them, and thence to a marketing unit in D which sells them to a customer – indeed, such practices are a feature of global manufacturing, as described more fully in Chapter 8.

3. International transactions in intellectual property products (IPP) (Chapter 7)

13. The 2008 SNA recognizes that R&D is capital formation of assets, and should be recorded as such in the national accounts. These assets are termed intellectual property. Computer software and databases are also scored as assets. Measuring the value of these assets and the associated service payments (in the form of fees or royalties payable for their

use) is difficult. The challenges are even more formidable when the owner is an MNE and the benefits of holding and using the assets are spread throughout affiliates across the world. The chapter describes the types of intellectual property assets, and the surveys and collection processes already available to capture the relevant asset value, and makes a case for further research on the issue of economic ownership of IPPs in MNEs. An annex presents extracts from the OECD Handbook on Deriving Capital Measures of Intellectual Property Products.

4. Global manufacturing (Chapter 8)

14. This chapter brings together much of the material in Chapters 5-7, presenting examples with varying degrees of complexity, including the example of a turnkey project, to illustrate the statistical treatment of global production and the consequences of adopting the new statistical standards in the 2008 SNA and BPM6. It contains material on the classification and statistical treatment of manufacturing enterprises, from the “traditional” producer undertaking all stages of production, to the “factoryless” manufacturer who develops and owns the relevant intellectual property but outsources all production. Annexes describe the treatment of such enterprises in Israel, and some US work on classifying them.

5. Measurement issues associated with administrative trade data and globalization (Chapter 9)

15. Re-exports are goods which are exported in virtually the same condition as that in which they were imported, and are usually included in foreign trade statistics. A change of ownership takes place because they enter into the ownership of a resident of the country through which they pass. Transit trade concerns goods which are transported across the country with no change in ownership; they are accordingly generally excluded from that country's foreign trade statistics. Quasi-transit trade, which is the main subject of this chapter, concerns goods imported into a country by an entity considered to be non-resident (so they are at no point owned by a resident of the country importing them), and then exported to a third country within the same economic union or customs area. At the first point of entry in the economic union, the goods are cleared for free circulation within the union – it is this point at which any import duty is applicable. There is often a significant difference in value between that declared at the point of entry to the economic union, and that observed on entry to a second country within the union. A unified approach is required across the union on how this increase in value should be recorded in the separate national accounts and in the accounts relating to the economic area as a whole. An annex shows how a similar phenomenon may arise in a single country (Hungary).

C. Household-related issues

1. International labour movements (Chapter 10)

16. The movement of people across country borders is not a new phenomenon – there has been international migration on a large scale since the nineteenth century. However, temporary cross-border movement of labour is on the increase, as seen in the European Union within which movement of labour is relatively free. Better income prospects and employment opportunities, lower international barriers, improved communication and cheaper transport have all contributed to growth. International labour movement however creates statistical challenges, not least where some of the workers concerned may be unregistered or working illegally. The statistical conventions, which distinguish between workers with an employment contract and others who are deemed to be receiving payment for services rather than compensation of employees, and the different residence status of long- and short-term workers, add to the complexity. The chapter describes these issues and

the associated challenges in capturing the relevant data in official statistics, and properly reflecting them in derived statistics such as labour productivity. Annexes describe country experiences and practices in dealing with various aspects of labour movement in the Czech Republic, Germany, Israel, Moldova and Ukraine.

2. Remittances (Chapter 11)

17. Cross-border remittances - household income from foreign economies arising from the migration of people to work there - have grown rapidly. As they have increased in size, remittances have become more important as part of national (disposable) income in many of the home economies. The distinctions mentioned above in connection with Chapter 10 affect the statistical treatment of the earnings of migrant workers and how flows back to their country of origin are recorded. Chapter 11 describes efforts to address the conceptual, definitional and measurement challenges arising from the growth in international remittances, and explains how a supplementary table introduced in the BPM6 brings together flows relating to migrant work and other forms of cross-border household-to-household transfers. Annexes describe country practices in Russia, Ukraine, the Czech Republic, Bulgaria and the Netherlands.

3. Second homes abroad (Chapter 12)

18. As people have increasingly moved across national borders, ownership of a house or apartment abroad has become more common, for work purposes or as a vacation home. International standards treat ownership of property abroad as a form of FDI – the non-resident owner is deemed to own, not the property directly, but a notional company which in turn owns the house or apartment. Like all residential properties, vacation homes are deemed to produce housing services which contribute to GDP and, where the owner is resident abroad, should be reflected in exports of services. The chapter explains these and associated flows and positions, with illustrations from experiences in a number of countries in capturing them (Norway, Ireland, Mexico, and also in France and Spain where, as in Ireland, much of the property is owned by United Kingdom residents).

4. E-commerce (Chapter 13)

19. Households and businesses are increasingly buying and selling over the internet or using other electronic means. The items concerned may be delivered physically or electronically. Statisticians must try to capture e-commerce transactions in national accounts and in the balance of payments when the transactions cross national borders. There are implications for consumer and producer price indices, and for the deflators used in estimating volume measures of GDP and its components. Chapter 13 and annexes explain these matters with particular reference to experience in the Netherlands.

5. The way ahead and a research agenda (Chapter 14)

20. This publication cannot be the last word on how globalization affects national accounts, and what steps are needed to maintain the quality of the estimates. It is likely that globalization of industrial processes, consumer and other spending and labour markets will continue, and that the share in world trade of MNEs will further increase. Meeting the statistical challenges presented to national accounts by these developments will require international solutions, and international institutions will have an important part to play in pursuing them. This role will include implementing the recommendations of the October 2009 report by the IMF and the Financial Stability Board to G-20 Finance Ministers and Central Bank Governors (The Financial Crisis and Information Gaps) (the G-20 report), and helping individual countries to continue to compile national measures of economic activity

while contributing to a coherent picture of the world economy. Chapter 14 brings together the many suggestions for further work contained in earlier chapters.

6. Impact of the financial crisis (Addendum)

21. The financial crisis began in 2007 and spread across much of the world in the following year or so. It did not arise from globalization, but close economic and financial interrelationships undoubtedly contributed to its rapid dissemination and pervasive effects. Although statistical deficiencies were not the cause, the crisis has given a strong impetus to statistical work, taking it in new directions. Among these directions are:

- (a) Identifying and measuring risk concentration and exposures;
 - (b) Obtaining better information on complex financial products;
 - (c) Obtaining group-consolidated data on large, especially financial, conglomerates.
22. These three initiatives have little direct connection with national accounts. Others, however, do. Examples are:
- (a) The increased emphasis on integrated economic and financial accounts by institutional sector;
 - (b) The associated balance sheets, including the international investment position and government debt;
 - (c) The enhanced interest in data on residential and commercial property, and related prices, which should make it easier to include estimates of real assets in sector balance sheets;
 - (d) The drive for better securities issues statistics, and data on holdings of securities;
 - (e) The emphasis on more comparable government finance data;
 - (f) The interest in distributional data such as information on groups within a sector, as obtained from surveys of households and small and medium-sized enterprises.

23. The G-20 report also recommended more emphasis on communication, following which a database of Principal Global Indicators has been assembled, containing a wide variety of timely and comparable economic and financial statistics covering individual countries and wider aggregates.

24. While some of these initiatives were already planned or in progress, the G-20 report has accelerated the work and led more to be undertaken. An appendix describes a variety of work under way at the European Central Bank, which is both a major user of statistics in performing its monetary policy and financial stability functions, and a source of data, including to a new body, the European Systemic Risk Board, established in January 2011.

II. The way ahead and a research agenda

A. Conclusions

25. The focus of national accounts is national data to meet national policy needs. Even in a monetary union like the euro area, where data must be aggregated across countries for the use of the single monetary authority, national accounts retain their importance for individual countries for other policy purposes, and the IMF and others continue to monitor

national developments using national data complying with international statistical standards.

26. The emphasis in this guide has been on the difficulties presented by globalization, and in particular on the challenges arising from the transactions of MNEs. Many of the issues discussed would however be difficult even if enterprises continued to be mostly autonomous national entities engaging in cross-border transactions. In this concluding section, a distinction is drawn between statistical difficulties which arise from recording cross-border transactions irrespective of who conducts them, and the challenges of recording MNE transactions in national accounts.

27. Some transactions, or features of them, are difficult to record accurately, whoever undertakes them. The transactions include the following:

(a) The consistent application in the new international standards of the change in ownership principle when recording a transaction. This means that merchandise trade statistics, as currently compiled, cannot be used as the source for goods for processing and merchanting, because the merchandise trade statistics generally record movements of goods across the national frontier, irrespective of ownership changes. Goods sent abroad for processing cross the border but remain the property of the enterprise sending them, while goods being merchanted are acquired by the merchant and pass into his possession but do not enter the country in which he is resident. Enterprise surveys are likely to be the best source of information on processing and merchanting transactions, but the problem of excluding goods sent for processing from the merchandise trade statistics remains;

(b) Under the international standards in the 1993 SNA, BPM5 and 1995 ESA, most IPPs are treated as produced non-financial assets. The fruits of R&D are an exception, being considered a non-produced asset. Under the 2008 SNA and BPM6, they are treated as produced assets, in turn generating a stream of services which contribute to GDP and whose economic benefits accrue to the economic owner. A transaction in an IPP is thus a transaction in a produced asset, affecting capital formation. The use of an IPP constitutes the purchase of a service. But there are borderline cases depending on the terms of the license to use the IPP. In practice, it seems that fees for the use of IPPs are often recorded under property income, as if the IPPs were non-produced assets;

(c) Although outsourcing is often associated with the activities of MNEs (see further below), even small companies which are not part of an MNE may commission entities abroad to manufacture products to their design and specification. It may then be difficult for the value added generated in the process as a whole to be measured, appropriately treated for statistical purposes, and correctly allocated to the two economies in which the parties to the operation are located;

(d) The recording of transactions relating to the cross-border movement of labour is complicated by the distinctions between migrant workers who are treated statistically as resident in the host economy, and those who continue to be resident in their country of origin. Similar complications arise from the distinction between workers with an employment contract with an entity in the host economy and those without. Those without an employment contract are treated statistically as providing services to the host economy, and not as receiving wages and salaries;

(e) Measuring cross-border transactions related to residential property presents many practical difficulties, especially for the country in which the owner of the property resides.

(f) Cross-border e-commerce can be difficult to record, even if the goods supplied are delivered physically as opposed to being downloaded, like electronic books or music.

28. Another aspect of globalization adds to the difficulties for those compiling national economic statistics. This is the growing importance of MNEs and cross-border transactions within the enterprise. MNEs feature large in the difficulties of measuring the following types of transaction or activity:

- (a) FDI, in particular the treatment of retained earnings;
- (b) Transactions between affiliates which do not have ownership links with each other;
- (c) International transactions in IPPs between affiliates;
- (d) Transactions of SPEs;
- (e) Global manufacturing.

29. An MNE will seek to organize their business in the most efficient way (having regard to production and transport costs), which may mean shipping goods back and forth between specialized processing units. It may not be clear which entity in the MNE at any particular stage in the process owns the raw materials, semi-processed goods, components and in due course the finished product. The goods may not be valued at market prices at the points at which national statisticians need to record them. This may be because the resident unit does not know the market price, or because the goods move around within the MNE at transfer prices which, within legal limits, minimize its tax burden. IPPs can be developed in one country and then made available for use throughout the enterprise, free of charge or at transfer prices which do not represent arm's-length prices. Staff may be switched from one entity to another in a different country, while being employed and paid by an entity in a third country which deploys specialist staff on behalf of the MNE as a whole. The growing concentration of business in MNEs complicates the measurement and allocation of value added and the recording of economic activity generally in the national economy.

30. What can statisticians do about the challenges described in the previous paragraphs? At present they collect data from, or in respect of, resident institutional units and assemble national accounts and other economic data from these sources. This approach is supported by national statistical legislation; indeed it may be the only possible approach using national legal instruments. But it depends on the resident institutional unit being able to provide the information which will enable its national economic activities to be measured and classified. This condition may not be met when the unit is part of an MNE which conducts much of its business across national frontiers.

31. In addition to the IMF's new Coordinated Direct Investment Survey (see below), three main initiatives point a way forward.

- (a) The United States collects data on the global activities of MNEs with a US parent. These data help compilers of national US data, because an overview of the operations of the MNE as a whole can throw light on appropriate recording of that part of the activities which properly contributes to value added in the United States economy;
- (b) The European Union (EU) compiles statistics for the euro area (currently 17 countries) and the union of 27 countries as a whole. Initiatives such as the EuroGroups Register and the FDI Network mentioned in Chapter 3 take an EU-wide view of the activities of large enterprises;
- (c) Several national statistical offices have established units on large enterprises to ensure that transactions of MNEs are treated consistently across all areas of national accounts and national economic statistics. These separate national initiatives may not be able to address the problem that the resident entities lack the information to enable a correct allocation of value added and classification of activities on the national territory to be made. They are nevertheless an important step in the right direction.

32. The financial crisis has given an impetus to viewing the transactions and positions of global enterprises as a whole. The research agenda set out in Annex 4 of the 2008 SNA suggests something similar: "Many enterprises operating within an economy are linked with other enterprises by complete or partial common ownership and a shared management structure to form an enterprise group. Enterprises also often share common ownership and management with foreign affiliates. It is common for enterprises within an enterprise group to trade with each other, sometimes exclusively, as when they perform an intermediate stage in a vertically integrated production process, and share the outputs and costs of ancillary production. They may also share the outputs and costs of research and development activities. Given their close ties it may be sometimes desirable to consider an enterprise group as a single entity and to consolidate the accounts of its members. Members of an enterprise group are usually engaged in different activities and sometimes in more than one sector, and so consolidation could affect aggregates, such as industry value added and sectoral balance sheets. It is therefore probable that the most likely way forward would be by way of supplementary tables. Separate consideration needs to be given to the case where some parts of the group are non-resident."

33. Earlier chapters of this guide point in the same direction – for example, to trace FDI through SPEs back to its original source (and forward to its destination), and to establish when an economic transfer of IPPs has occurred, and at what price. Earlier chapters also indicate the importance of establishing the nature of operations within MNEs – for example, the distinction between merchanting and the sending of goods abroad for processing, where the statistical treatment is different. These needs are probably best served by direct surveys of MNEs, rather than surveys of those parts of them that happen to be locally resident.

34. This guide in no way questions the need for the current standards on residence and sector classifications. But data collected from national entities which may have an incomplete picture of the MNEs contribution to the national economy may not be enough to enable good quality national data to be compiled. It may be better to supplement this information with a bird's-eye view of the MNE. This requires a change in the way national statisticians work, and a need for more international cooperation.

B. Suggestions for further work

35. Earlier chapters contain many specific suggestions for further work. This section summarises them in the following broad groups: continuation of initiatives already started; conceptual issues; measurement issues; practical steps in the areas of data collection and presentation and exchange of data and best practice.

1. Continuation of initiatives already started

36. Work relevant to the issues raised in this guide is under way:

(a) The introduction of the IMF's Coordinated Direct Investment Survey, and the preparation of a Guide for compilers, is very likely to improve the quality of data on foreign-controlled enterprises, increase international comparability of results, and provide a wealth of mirror data for use in bilateral comparison of individual country results (Chapter 3).

(b) An OECD Task Force on IPPs has examined various aspects of statistics relating to them, and has developed new surveys on MNEs including questions on their balance sheets (Chapter 7).

(c) Work on improving remittance and related data continues at the international level. At their June 2008 summit, the G-8 announced the creation of a Global Remittances

Working Group. Subsequent proposals include a new technical working group to promote global and regional efforts to improve remittance data, with the provision of technical assistance, the exchange of metadata and bilateral data, and a website to serve as a global repository for detailed metadata, bilateral data, and research results.

(d) The Suitland Working Group was formed, also in 2008, among other things to develop household surveys as a tool for collecting remittance data and to measure migration. Areas of focus include creating a draft module on migration and remittances to be included in nationally representative household surveys, linking administrative data with survey data, addressing data quality issues, and developing an online repository of household survey questionnaires. These initiatives should address issues arising in the areas of labour movements (Chapter 10) and remittances (Chapter 11).

2. Further conceptual work

37. Several earlier chapters raised analytical or conceptual points. The major ones are as follows:

(a) Global manufacturing: There is need of additional research on the distinction between “traditional”, contractor/processor, and outsourcing producers. Further guidance is necessary especially in the case where an entity undertakes the R&D underlying a product and organizes its manufacture, but does none of the actual manufacturing. Where production is outsourced, it is also important to distinguish between the “goods for processing” treatment and the “merchanning” treatment. The different treatments have major implications for recorded trade in goods and services, and uncertainty about the underlying nature of the transaction(s) may introduce discrepancies between national data (Chapter 8);

(b) Transactions in IPPs within MNEs: It may not be easy to identify the source of the R&D and other intellectual property underlying the products, and the organizational and managerial input to the production process, and to record the corresponding value added where it arises. The fact that goods and associated services may move around within the MNE group at transfer prices which do not reflect market prices adds to the difficulty for national statisticians. The distinction between economic and legal ownership of IPPs, and how transfers of IPPs within an enterprise group, perhaps for tax reasons or organizational convenience, should be treated statistically where the benefits of ownership in effect remain with the unit which devised them, deserve further attention (Chapter 7);

(c) Merchanting of services through outsourcing facilitated by innovations in telecommunications and web-based (internet) services also deserves more investigation (Chapter 6). BPM6 recognizes the issue of merchanting of services, but proposes no distinct treatment for such transactions. The question arises of which is more appropriate: the gross approach, where the services being merchanted are recorded as an import of services by the country in which the merchant is resident, followed by an export when they are sold on; or the net approach, like that for merchanting of goods in the new standards;

(d) There is need for further work on harmonizing the definition of SPEs. This would improve the comparability of SPEs across countries, and enable entities with SPEs in more than one economy to be treated in the same correct way by all statistics compilers (Chapter 4);

(e) Recording of international labour movements in labour force statistics, and links between labour statistics and national accounts (with possible further development of the social accounting matrix), merit attention (Chapter 10);

(f) Second homes: Should the property be deemed to produce housing services continuously, or only when it is occupied? International and European standards are not consistent on this point (Chapter 12);

(g) E-commerce raises (among the measurement issues discussed below) a challenge for price statistics to do with quality adjustment (the issue of non-comparable imports, and how to link the prices of products that had been purchased domestically with those of products that have begun to be imported). A similar issue is mentioned as a consequence of outsourcing in Chapter 2, where imports replace domestically produced goods.

3. Measurement issues

38. Other issues present measurement problems:

(a) Developing price deflators in the context of the new treatment of goods for processing, and measuring inventories held abroad (for processing, in the course of merchanting or otherwise in connection with global manufacturing), and recording movements in the prices of inventories held abroad (Chapters 5, 6 and 8);

(b) Import substitution, which may be a challenge for some price statistics. Even if the conceptual issues of quality adjustment can be addressed, price statisticians still face the difficulties of collecting the detailed information on the characteristics of imported commodities which is needed for all methods of quality adjustment (Chapters 2 and 13);

(c) The challenges that statisticians face when using administrative data to estimate economic activities in the context of the complex enterprise structures and multi-stage production and distribution processes that are typical under globalization need further investigation. Quasi-transit trade is an example where trade in goods entering a customs union apparently acquire more value while passing through one or more countries en route to a customer. The most important issue is to establish where the value added reflected in the price increase and a corresponding merchanting transaction (or provision of branding services) should be recorded (Chapter 9);

(d) Work on remittance-related issues has already being undertaken. However, the practical problem of recording (or estimating) remittances deserves further attention, particularly emerging transfer methods and changes in the demographic profile of the remitting population (Chapter 11). Research should be conducted at the national and regional levels to capture both country-specific developments and regional changes;

(e) There are major difficulties concerning measurement of the stock of second homes abroad, and – given its relevance - the correction for average occupation time. Once secondary dwellings have been identified, and occupation time established, a line must be drawn between vacation homes and dwellings owned for other purposes (with implications for especially tourism statistics). Then, once the stock of such dwellings is established, it is difficult to estimate the imputed rental using the so-called stratification and similar methods when – as in some regions, and in particular in rural areas - no relevant and explicit rental market exists for dwellings of this kind. Since a time share property may be “owned” by residents of different countries, a direct allocation of the housing services it provides to the country of the owners is extremely difficult. Statisticians in the country of origin of the owner of property abroad face greater problems as there is no stock to be observed, and the stratification method cannot be applied. Chapter 12 suggests that these conceptual (and also practical) problems merit further work.

4. Data collection and presentation

39. The challenges posed by globalization and the new international standards will require further work on survey questionnaires and data collection.

40. One of the suggestions noted above in the context of labour movement and remittances (Chapters 10 and 11) concerns more intensive use of household surveys. Chapter 13 on e-commerce suggests more use of household surveys particularly where, as for cross-border business-to-household e-commerce, (national) business surveys cannot help. Chapter 13 also notes the possible use of credit card data as a source worth exploring.

41. Several earlier chapters suggest that more use of (or additional questions on) national business surveys might help to resolve difficulties arising from globalization, in particular to collect information on business-to-business e-commerce, measurement of IPPS, etc. The main long-term solution is however seen to be surveys on MNEs, since many of the difficulties stem from cross-border transactions within them.

42. It is recognized, though, that household surveys may not be capable of providing a reliable solution to some of the problems for national accounts stemming from (notably) labour movements and e-commerce, and also that there may be limits in some countries to extra reporting burdens on business. In some areas fuller use of administrative sources, including tax authorities, may be possible.

43. Chapter 5 suggests separate coding within merchandise trade statistics of goods for processing, so that balance of payments compilers can exclude them. While this would be a good first step, a longer run goal should be to have trade declaration documents that would allow the compilation of data both on physical flows and economic transactions.

44. Other suggestions include the presentation of national accounts with and without SPEs (Chapter 4); and additional analytical tables for international labour movements (Chapter 10).

5. Exchanges of data and of best practice

45. Exchanges of data among countries are seen as helpful in various contexts: FDI (Chapter 3), labour movements and remittances (Chapters 10 and 11), and second homes abroad (where they may in particular help to fill gaps for statisticians in the country of residence of the owner of property abroad) (Chapter 12). Because cross-border movement of labour is often a regional phenomenon, the sharing of data within a regional group can highlight asymmetries between major partner countries, which the countries concerned can then examine within the context of the larger region. The development of a centralized remittances database, either publicly available or restricted, would promote data sharing, and the development of a supply and use framework might facilitate analysis of the data. Chapter 12 notes that data exchanges between EU member states have been suggested for some years as a practical solution to the lack of information on cross-border ownership of property, with little progress so far. More ambitious would be bilateral comparisons between countries, to record and analyze asymmetries in the Tourism Satellite Account or national accounts data concerning non-resident dwellings, much as mirror statistics are used to identify and reduce asymmetries in cross-border trade within the European Union.

46. Finally, exchanges of best recording practice among countries are seen as potentially helpful in many areas, and could usefully be encouraged at a time when the new international standards are being implemented. The initiatives in the areas of FDI and remittances were noted in the paragraph on work already being undertaken. SPEs (Chapter 4) are a particularly difficult area, both in terms of capturing the necessary information, and of compiling national accounts and national balance of payments and international investment position data both with and, for purposes of analyzing domestic economic and

financial developments, without them. Chapter 4 suggests that national statisticians should pay close attention to developments in the treatment of SPEs by other countries. Chapter 12 on second homes suggests a reference database to which national statisticians would have access.
