Preface and acknowledgements

(to be inserted after the April 2010 Meeting)
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Introduction

I. What is globalisation?

In national accounts terms, globalisation is the process of replacing national economic structures and transactions by international ones. It is the spreading of private corporation business arrangements from within one economy to spanning several. Business once confined their production activities to the national economy, apart from exporting a part of their production, and importing part of their intermediate inputs. People were employed locally; they lived near their work and consumed mostly local products. Investment was funded within the economy and financial transactions were also largely domestic. So for the most part, the national accounts were a measure of a self-contained domestic economy, with some foreign trade in goods and services.

It is a growing challenge for national accounts concepts and associated production systems to measure economic activities in the domestic economy, given the increasingly global nature of economic transactions and arrangements. Corporations now organise their production and marketing at a truly global level, with vertical production processes spanning several countries. Capital such as intellectual property can now be used simultaneously across the world in a multinational corporation. Labour is mobile, and income returned to the home country is an important part of the national income of the receiving country. And household spending increasingly is international as the worldwide web expands spending opportunities. A list of the various features of globalisation which directly affect national accounts measures is:

(a) Transfer pricing between affiliated corporations (pricing of imports and exports between affiliated companies in the absence of a market transaction).

(b) The increase in toll processing, where goods are traded across international borders with no change in ownership (goods for processing).

(c) International trading via the internet, both for corporations and household consumption.

(d) The trade and use of intellectual property assets across the world.

(e) Persons moving abroad, either as temporary workers or migrants, and remitting funds to the cultural homeland (remittances).

(f) Multinational corporations organising their business across national boundaries, to maximise production efficiency and minimise the global tax burden. This can give rise to artificial corporation structures which do not reflect the economic reality.

(g) The use of off-shore financing vehicles (special purpose entities and other forms) to arrange finance for global activities.

(h) Re-exports of goods, and in Europe the transport of goods between member states after entry into the economic union (transit trade and quasi transit trade).

(i) Increase in foreign direct investment relationships, and the need to identify and allocate direct investment flows.

(j) An increase in international merchanting, where the agent arranges export of goods from country A to country B as imports, without the goods ever crossing the borders of country C where the merchant is resident.
(k) An increase in international trade in services.
(l) An increase of household travel, spending and investment abroad.

II. What is the purpose of this report?

The purpose of this report is to help users and producers of national accounts statistics understand how globalisation affects the measures of national accounts. It brings together in one place a description of the effect of globalisation on national measures, and highlights those areas that will need increasing attention and resources to maintain the quality of national accounts.

The report has been written to support the adoption of the new international standards of measuring economies. The international standards are consistent with each other. This is a great strength, and this report describes the effects of globalisation as part of this consistent framework. The standards are the international System of National Accounts 2008 (2008 SNA), the sixth edition of the Balance of Payments and International Investment Position (BPM6) and the European System of National Accounts (ESA 2010).

In terms of globalisation, the main changes in the international standards are:

(a) The treatment of remittances from the movement of persons abroad has been expanded, with coverage of the flows being closer to the economic reality.
(b) The application of the principle of change in ownership of goods has been made universal, resulting in changes to the recording of merchanting and of goods sent for processing, both abroad and within the domestic economy, and then returned to the owner. These changes have shifted the focus away from the physical movements of goods to the impact on the economies of the owner of the products and the processor. As a result, they are consistent with international financial transactions that are increasingly important in a globalised economy.
(c) In recognition of the changing structures of production and finance in many economies, guidance is now provided about when “special purpose entities”, which can be created by corporations or the government, should be recognised as institutional units, how they should be classified, and how their operations should be treated.
(d) Research and development has been recognised as capital formation, and this gives an extended range of intellectual property assets.

III. Why is globalisation an important issue for national accounts?

Table 1 sets out the list of globalisation factors and the estimates in national accounts which are most affected by them.

Measuring a national economy in the light of the list of the globalisation of industrial production requires splitting up coordinated and seamless international activities into those parts which occur within the borders of a country.
Table 1

Impact of globalisation factors on national accounts estimates

<table>
<thead>
<tr>
<th>Global phenomenon</th>
<th>National accounts estimates most at risk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transfer pricing</td>
<td>GVA, GDP</td>
</tr>
<tr>
<td>Toll processing, Goods sent abroad for processing</td>
<td>GVA, exports and imports</td>
</tr>
<tr>
<td>Internet trading</td>
<td>Imports and exports, household consumption</td>
</tr>
<tr>
<td>Intellectual property assets</td>
<td>Misallocation of GVA between countries, GFCF</td>
</tr>
<tr>
<td>Remittances</td>
<td>Household income, GNI</td>
</tr>
<tr>
<td>MNE arrangements</td>
<td>Operating surplus</td>
</tr>
<tr>
<td>Off-shore financing (SPEs)</td>
<td>Deficit and debt</td>
</tr>
<tr>
<td>Re-exports, transit and quasi transit trade</td>
<td>International trade</td>
</tr>
<tr>
<td>FDI relationships</td>
<td>International income and finance flows</td>
</tr>
<tr>
<td>Merchanting</td>
<td>International trade</td>
</tr>
<tr>
<td>Trade in services</td>
<td>International trade</td>
</tr>
</tbody>
</table>

Abbreviations: Gross value added (GVA), Gross domestic product (GDP), Multi-National Enterprise (MNE), Foreign Direct Investment (FDI), Special purpose entity (SPE), Gross fixed capital formation (GFCF), Gross national income (GNI).

IV. Looking at the elephant

For firms which organise activities on an international basis - the national reporting approach means that a series of countries' statistical systems will see different 'parts of the elephant' which do not necessarily make sense in isolation. For the statistical returns from a multinational to add to understanding of issues such as productivity the parts need to be viewed in relation to each other in order to present a picture of how business inputs relate to outputs.

For example, a multinational corporation may undertake its research and development (R&D) as a corporate entity; co-ordinating activity based in at least two European Union (EU) member states. In making R&D returns it is required to indicate what is done in each country, but not to relate them to each other. Nor is it possible under existing statistical systems to relate inputs in one country to outputs in another. Instead detailed analysis for policy tends to assume that inputs to a reporting unit within a country are related to outputs from the same unit. In vertically organised, or integrated, multinationals this is unlikely to be the case; in real life outputs in one country unit are critically dependent on inputs from another.

The treatment of local entities in countries as individual enterprises can hide the real relationships which exist between units in multinationals. Within countries there is concern to identify the 'real' dimensions of enterprises, for competition regulation, to check on intra-firm transactions and transfer pricing and to understand structural market effects. This has driven the statistical definition of enterprise groups, as ‘associations of enterprises’ bound together by legal and/or financial links which imply control. While most national business registers identify membership of foreign controlled enterprise groups, and country of control, few capture economic data on activities outside the country. The United States
(U.S.) model for data collection, which collects data on international activities of U.S. parent organisations, permits a view of the whole enterprise, has a number of attractions to meet policy needs in this area.

V. Understanding the parts of the elephant

R&D is just one example of the shared use of intellectual capital across multinationals. An equally difficult problem is posed by the use of shared software across global firms. For example a major software corporation writes much of its own system software, so a significant part of software professional time expensed in its accounts will really be attributable to investment in software capital. But attempts to assign software investment activity to reporting units by country will be defeated by the fact that:

(a) The software developed in the country of the parent is used worldwide within the company.
(b) Much of the internal systems software used in the parent is written in other countries.

In effect the firm behaves as if it has a stock of intellectual capital - in software and other aspects of management systems - which is freely shared across its enterprise activities.

The implications for measurement of capital services of this effect are significant, and pose severe problems for statisticians. The intellectual capital in multinationals does not reside in a single country, but in the global enterprise systems which make the firm function, and give it competitive advantage. This extends beyond the software example quoted earlier. Attempts to measure software capital formation accurately at national level in a firm like this is a significant challenge for national accounts.

VI. What does this report cover?

The report covers the main factors in the list of globalisation effects on national accounts estimates given in Table 1. Each chapter describes a particular aspect of globalisation, and sets out how it can affect estimates in national accounts. Guidance is given on how national estimates can be produced, or how statistical collection systems should be improved to maintain the quality of the accounts. A summary by chapter is given below.

A. Chapter 1: Multi-national enterprises and the allocation of output and value added to national economies

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

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. For example, the top ten foreign owned MNEs in Ireland account for 34 per cent of all exports. In order to tackle the many issues introduced by the growing importance of MNEs in the Irish economy, the statistical office of Ireland has set up a consistency unit with responsibility of analysing all
aspects of data received from MNEs – the unit is based in the national accounts business area, but with members from registers, survey, administrative records and also a chartered accountant. Irish experience suggests that such units are essential for countries where multinationals play an important part in the domestic economy.

B. **Chapter 2: Multi-national enterprises, foreign investment and related income flows**

Chapter 2 describes why high quality data on foreign direct investment is 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) organised by the International Monetary Fund (IMF) – a major statistical undertaking with the express purpose of improving the quality and availability of data on foreign direct investment (FDI) used in international and national accounts.

C. **Chapter 3: Special purpose entities**

This chapter gives a definition of what a special purpose entity (SPE) is. They are daughter companies of parents, often in a different country, established to hold assets and receive income on behalf of the parent in a country, which has fiscal and tax advantages. How SPEs are treated in the national accounts is set out, in the light of the 2008 SNA. One key issue is whether an SPE can be regarded as an institutional unit when the SPE is resident in a different country from the parent MNE. The conclusion in this chapter is that the advantages of recognising them as institutional units usually outweigh the disadvantages.

D. **Chapter 4: Goods sent abroad for processing**

Chapter 4 describes the situation where production chains across several countries involve the export and import of goods for processing without change in ownership. The 2008 SNA and BPM6 no longer recommend imputing a change in ownership in these cases, and so only scoring a service fee in the accounts rather than the input and output of goods on a gross basis. This recording better reflects the associated financial transactions, 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 1993 SNA to 2008 SNA on input-output models and other structural indicators. It recommends a series of changes in data collection and compilation methods to handle the changes. And most importantly, the chapter sets out how the revised treatment affects the analytical roles traditionally associated with input-output tables. This chapter provides operational guidance for the implementation of the treatment of goods for processing as reflected in BPM6 and 2008 SNA.

E. **Chapter 5: Merchanting**

This chapter describes how merchanting has been affected by globalisation. It gives operational guidance for the implementation of the new treatment of merchanting as reflected in 2008 SNA and BPM6. There is little difference between the concept of merchanting of goods as set out in BPM5 and BPM6. But the statistical recording is different as BPM6 shows the merchanted goods on a gross basis in the goods account,
although enabling the service element to be derived. In BPM5 the merchanting is shown in the services account on a net basis. BPM6 paragraph 10.41 defines merchanting as “the purchase of goods by a resident (of the compiling economy) from a nonresident combined with the subsequent resale of the same goods to another nonresident without the goods being present in the compiling economy.” Merchanting is calculated as the difference between the value of the goods when acquired by the merchant and the value when the goods are sold, and for the country of residence of the merchant, is recorded as an output of merchanting services in the national accounts The 2008 SNA recommends that goods acquired by global manufacturers, wholesalers and retailers and those cases of commodity dealing being settled in the commodity should be recorded as negative exports on acquisition and positive exports on disposal. The difference between the two appears in exports of goods but appears as the production of a service in the merchant’s economy, analogous to trade margins applied to domestically traded goods. The value of the merchanting service is extremely difficult to measure in practice, given that the goods concerned never cross the borders of the country of residence of the merchant. The chapter describes the 2008 SNA recommendations on how to treat the international merchanting of goods. Guidance is given on the identification of merchanting activities in the country of residence of the merchant, and this is important for international recording of trade in goods and services, given the apparent under-recording of merchanting activity across all countries. The treatment of merchanting of services is also discussed, with a view to improving consistency of approach across the world.

F. Chapter 6: Quasi transit trade: when value added does not belong to the reporting economy

Quasi transit trade is a little known phenomenon that causes problems to the accounts of the European Union. This chapter provides clear definitions of quasi transit trade, explains its relevance, and describes the available data sources and the solutions proposed. While this chapter only aimed at providing a comprehensive analysis of quasi transit trade, other valuation problems similar to those created by quasi transit trade but affecting national data were detected during the analysis and are also described. Quasi transit trade and related phenomena are linked to the activity of traders or MNEs that are not residents in the country where the goods are submitted to custom procedures and recorded in international merchandise trade statistics. The emergence of global manufacturing arrangements can possibly increase the relevance of quasi transit trade and related phenomena in all countries.

G. Chapter 7: International transactions in intellectual property

The 2008 SNA recognises that research and development is capital formation of assets, and should be recorded as such in the national accounts. These assets are scored as intellectual property assets. Computer software and large databases are also scored as assets as set out in 1993 SNA and this remains unchanged in 2008 SNA. Measuring the value of these assets and the associated service payments is difficult when the assets are not marketed or rented, but developed and used in-house. The challenges are even more formidable when the owner is a MNE and the benefits of holding the assets are spread throughout affiliates across the world. The chapter describes the types of intellectual property assets, and describes the surveys and collection processes already available to capture asset value. New methods of capturing asset value are also described and recommendations made, in line with the Organisation for Economic Co-operation and Development (OECD) “Handbook for Deriving Capital Measures for Intellectual Property Products”. Also described is the issue of MNEs establishing affiliates abroad for the purposes of holding patents and copyrights and receiving the associated service streams of payments.
H. **Chapter 8: Labour mobility**

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 labour mobility is on the increase – seen in the EU with the relatively free movement of labour within the union. Higher income prospects, employment opportunities, lowered political barriers; improved communication and transport at lower costs have all contributed to growth. But to be resident for one year before recognising a resident contribution to an economy is considered too short a time span for many analytical purposes. Another challenge is to distinguish between employment and service contracts. The chapter describes these issues and the associated challenges in capturing the data measures in official statistics.

I. **Chapter 9: Remittances**

Cross-border remittances – household income from foreign economies arising from the movement of people to these economies, either as temporary workers or migrants – have grown rapidly. As they have increased in size, remittances have increased in importance as part of national measures of the economy. The chapter describes efforts to address the conceptual, definitional and measurement challenges arising from the growth in international remittances.

J. **Chapter 10: Other household issues**

This chapter covers e-commerce and second homes. E-commerce, which involves cross border and domestic transactions over the internet, facilitates transaction of goods and services across boundaries and shows every sign of continuing to expand at a rapid rate. The potential costs saving from e-commerce are substantial. For instance, transactions over the computer network avoid many of the associated costs of exchange between buyers and sellers, including travel costs, administrative costs, communication costs and search costs. While the growth of cross-border e-commerce is widely acknowledged, it imposes measurement challenges for official statistics. The chapter describes efforts to address the definition issue and how it relates to the methodological treatment of e-commerce in domestic and international trade statistics, and how it affects the national accounts.

During the last couple of decades it has become increasingly more popular to acquire second homes or holiday homes abroad. In addition a growing number of the population requires access to two or more dwellings located in different countries due to their physical movements related to work. The chapter presents some of the main principles of recording economic stocks and flows related to second homes abroad.

K. **Chapter 11: The financial crisis**

This chapter describes the factors lying behind the financial crisis of the latter part of the first decade of this century, and the implications for the measures of national accounts.

VII. **The Future**

This report cannot be the last word on how globalisation affects national accounts, and what steps are needed to maintain the quality of the estimates. It is likely that globalisation of
industrial processes, labour and consumption will continue, and the share in world trade of multinational corporations will increase. International arrangements require international solutions, and international institutions such as the IMF, OECD, United Nations, Eurostat, the World Bank, the World Trade Organisation, and the International Labour Organisation, will all have an important part to play in future developments in national accounts. These developments will be increasingly important to enable sovereign states to maintain a good measure of their economies, as part of an increasingly harmonised picture of the world economy.
CHAPTER 1

Multi-national enterprises and the allocation of output and value added to national economies

I. Introduction and background

1.1 Multi-national enterprises (MNEs) present special measurement challenges for national and balance of payments accounts. This is in part because MNEs are in the business of maximizing their company-wide global after-tax profits. They allocate resources, price intra-company transactions, and bill transactions in a manner that is designed to reduce their global tax burden. As a result, national accounts measures based on MNEs’ business records may not accurately reflect the underlying economic behavior of the real economy in the countries where they operate. This behavior is a significant problem because of the growing size of MNE activities. For the United States, for example, MNEs account for nearly 30 per cent of value added, over 60 per cent of exports, and over 50 per cent of imports (Chart 1.1).

1.2 As a result of these practices, gross domestic product (GDP) may not always reflect the actual location of the productive activities that give rise to it. However, because the earnings of MNEs reflect income from foreign as well as domestic operations, gross national income (GNI) is less likely to be affected. For example, if a parent company in a high tax country sets an artificially low price on its exports of intermediate goods to an affiliate in a lower-tax country and an artificially high price on its overseas affiliate’s exports of final goods back to the parent, it will lower exports, raise imports, and artificially lower GDP in the higher-tax country (and artificially raise GDP in the low tax country). However, the domestic investor’s share in the added earnings (including

<table>
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<tr>
<th>Chart 1.1: MNE Shares in U.S. Production, Trade, and R&amp;D, 2006</th>
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<tbody>
<tr>
<td>Per cent</td>
</tr>
<tr>
<td>----------</td>
</tr>
<tr>
<td>R&amp;D Research and development</td>
</tr>
<tr>
<td>Exports</td>
</tr>
<tr>
<td>Imports</td>
</tr>
<tr>
<td>Value added</td>
</tr>
</tbody>
</table>

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1.3 reinvested earnings) attributed to the foreign affiliate in the low tax country will be included in the GNI of the high tax country, offsetting some or all of the reduction in GNI caused by the reduction in earnings attributable to the parent.

1.4 Although the extent of this problem cannot be precisely measured, it may be expected to be related to several of the factors that give rise to it. One of these is simply the extent of foreign direct investment, a type of investment that is more important for some countries than others. Another is the significance of transactions involving intellectual property. As will be explained later, one source of what could be viewed as a distortion is the transfer of intellectual property products to foreign affiliates. Sending countries often tend to be those with advanced technological capabilities and high taxes. Receiving countries tend to be those with low taxes and may include both technologically advanced countries (which can add value to the property) and countries with little technological infrastructure.

II. Statistical treatment recommended in international standards

1.5 Several different statistical guidebooks provide guidelines for statistics pertaining to MNEs. Current recommendations on measuring flows of investment, the related income, and the resulting investment positions are contained in the International Monetary Fund’s Balance of Payments and International Investment Position Manual, sixth edition (BPM6). These recommendations are consistent with those in the System of National Accounts 2008 (2008 SNA). Additional detail on recording direct investment and on linkages between direct investment statistics and statistics on the underlying operations of direct investment enterprises are available in the Organisation for Economic Cooperation and Development (OECD) Benchmark Definition of Foreign Direct Investment, fourth edition. Finally, suggestions for economic variables and analytical measures to be used in describing and analyzing multinational companies and their effects are provided in the OECD Handbook on Economic Globalisation Indicators.

1.6 Probably the most significant features of existing international statistical guidelines as they relate to these issues are those pertaining to the residence of enterprises. Foreign subsidiaries or other foreign affiliates of direct investors are regarded as resident in their respective countries of location rather than as resident in the countries of their parent direct investors. This treatment is designed to place production in the country in which it occurs. However, artificial transfer pricing, use of consolidated overseas billing locations, or other intrafirm accounting practices can result in a misalignment between the location where the firm records its financial transactions and the location of production.

1.7 The recognition of certain types of intellectual property as produced assets in 2008 SNA can also distort the measures of GDP between economies where the property is developed, and economies where the associated patents are registered. The 2008 SNA recommends that payments for use of patented intellectual property should be recorded as service payments to the economy where the patents are registered or otherwise legally domiciled. To the extent that parent firms in high-tax countries transfer ownership of intellectual property to affiliates in low-tax countries it will lower service exports, raise service imports and lower GDP in the high tax countries, while raising the low-tax countries’ exports, lowering their imports, and raising their GDP. However, the relative GNIs—which capture direct investors’ shares in the net earnings of their overseas affiliates—will provide a more appropriate reflection of the income generated by production in each economy.
III. Measurement problems and proposals for operational treatment

1.8 Two broad categories of measurement problems are discussed below. The first relates to MNEs and the global allocation of income, the second, to MNEs and gaps in the statistical system.

A. Multinational Enterprises and the global allocation of income:

1.9 A growing number of large MNEs are transferring intellectual property to foreign affiliates (which when the affiliate is a special purpose entity are called royalty and license companies). Often the transfer is to a country with lower tax rates than the country of the parent, which is important in high tax countries such as the United States. Between 1977 and 2007 the share of U.S. parent companies’ receipts for the sale or use of intangible assets and for royalties and license fees with “tax-haven” countries increased from 13 per cent to 37 per cent (Table 1.1).

Table 1.1
U.S. Multinational enterprises’ royalty and license fee receipts from, and direct investment position in, foreign affiliates*[millions of dollars]

<table>
<thead>
<tr>
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<tbody>
<tr>
<td>Receipts of royalties and license fees from foreign affiliates:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>All foreign affiliates</td>
<td>2,173</td>
<td>3,585</td>
<td>10,082</td>
<td>54,726</td>
</tr>
<tr>
<td>Foreign affiliates in tax haven countries</td>
<td>283</td>
<td>486</td>
<td>1,723</td>
<td>20,020</td>
</tr>
<tr>
<td>Tax haven share (per cent)</td>
<td>13.0</td>
<td>13.6</td>
<td>17.1</td>
<td>36.6</td>
</tr>
<tr>
<td>U.S. direct investment position:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>In all countries</td>
<td>145,990</td>
<td>207,752</td>
<td>381,781</td>
<td>3,162,021</td>
</tr>
<tr>
<td>In tax haven countries</td>
<td>27,879</td>
<td>45,819</td>
<td>87,069</td>
<td>1,403,880</td>
</tr>
<tr>
<td>Tax haven share (per cent)</td>
<td>19.1</td>
<td>22.1</td>
<td>22.8</td>
<td>44.4</td>
</tr>
</tbody>
</table>

*The countries designated as “tax havens” in constructing this table were obtained from a list appearing in Martin A. Sullivan, "U.S. Multinationals Move Profits to Tax Havens," *Tax Notes* (weekly newsletter of www.taxanalysts.com), February 9, 2004.

1.10 In the case of United States parents, they are either able to immediately write off the expense of research and development for tax purposes or, in some cases, take a direct tax credit. The parent can then sell the resulting intellectual property products to a subsidiary in a low-tax country at a relatively low price, or transfer them through a contract that charges the subsidiary a relatively low royalty. The parent is able to lower its global tax burden by:

(a) Reducing its U.S. taxes during the development period by booking expenses in the United States, and

(b) By shifting the income from the property to a low-tax country, where it can be shielded from U.S. taxes and used as a source of financing for the overseas operations of

the corporation. Since the stock price of a multinational is based on its global net earnings, such a reallocation of profits may benefit the MNE and its stockholders through asset appreciation as well as through increases in current earnings (in the United States, as in many countries, capital gains tax rates are lower than income tax rates). Alternatively, the MNE can defer taxes until they are repatriated. Whether this repatriation occurs during a tax “holiday” or not, deferral of taxes normally raises the present discounted value and stock price of an MNE.

1.11 MNEs can also reduce their global taxes through a number of other devices, including interposing a finance or holding company affiliate in a low-tax country between themselves and their foreign operating affiliates; structuring transfer prices between parents and their subsidiaries to shift net income toward subsidiaries in lower cost countries; establishing offshore factoring corporations in low tax countries that bill and collect for the parent’s worldwide sales; and inverting the corporate ownership structure, with an overseas affiliate in a low-tax country becoming the parent that collects net income for the multinational’s worldwide corporate structure.

1.12 The effect of all these practices is to lower recorded GDP in high-tax countries and raise recorded GDP in lower tax countries relative to the actual levels of economic activity occurring in those countries. Similar recording issues are of course also present in the affected components of the national accounts and balance of payments accounts. Robert Lipsey, a noted analyst of MNEs, has noted that “this ability of firms to shift the location of assets and profits by paper transactions internal to the firm . . . makes the location of the firms’ production ambiguous.”

1.13 The challenges associated with these practices are highlighted in the second panel of Table 1.1, which shows the increasing share of United States direct investment in “tax haven” countries. Between 1977 and 2007, the share of U.S. direct investment in tax havens increased from 19 per cent to 44 per cent.

1.14 Recently, analysts have called the investment figures themselves into question. In 2006, Ricardo Hausmann and Federico Sturzenegger of the Harvard University Center for International Development argued that estimates of direct investment derived from company accounting records fail to take into account the value of a variety of intangible assets that tend to be most abundant in multinational firms. Proceeding from the observation that the United States regularly runs a surplus on investment income notwithstanding a sizable negative international investment position, they concluded that sources of value must exist that were not being fully captured in the estimates. The most important of these, in their view, was knowledge—“the notion that foreign direct investments (FDI) abroad are a vehicle for the dissemination of ideas, blueprints, knowledge and that they are the vehicle for unaccounted exports of services produced by headquarters and used by affiliates around the world.”

1.15 Hausmann and Sturzenegger suggested that alternative investment estimates capturing such unmeasured “Dark Matter” might be constructed by capitalising the earnings generated by the investments. However, there is little basis for selecting an appropriate rate of return to use in the calculation, inasmuch as returns on direct investments are usually

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impact of globalisation on national accounts: practical guidance

investment are affected by a wide variety of factors and may differ markedly across countries and over time. Short of trying to shadow price a wide range of MNEs rather than unique internal transactions at market prices, returns to intellectual property will always be difficult to measure and some misallocation of GDP and value-added is unavoidable.

1.16 On the other hand, there are a number of ways in which statistical agencies can improve reporting by MNEs. These measures include stepping up outreach to respondents, through visits to MNE’s, communications, and clarification of instructions. In addition, statistical offices can undertake cognitive work with respondents on survey design to promote improved reporting. Examples of problems that may be partly addressed through such measures include problems many balance of payments compilers report in collecting statistics on reinvested earnings, which are part of a more general problem of obtaining data on activities located wholly outside the country. Some respondents fail to distinguish properly between the domestic and foreign parts of the firm, which results in such errors as counting as cross-border exports what are actually foreign affiliates’ sales in their host countries. Such mistakes are understandable, since MNEs often view themselves from the perspective of their worldwide operations and place little importance on national boundaries. Nonetheless, they impair the accuracy of the allocation of output and incomes across countries and geographic regions.

1.17 However, by educating users on the importance of separating and correctly reporting cross-border sales from overseas sales through foreign affiliates and other transactions involving foreign affiliates, reporting by MNEs can be made more consistent with international guidelines. Such improved reporting can help to better align national and international accounts with the underlying pattern of production within and across countries. (For an example of how one country has used outreach to companies, see “Case Study of Ireland” at the end of this chapter.)

1.18 In the case of intellectual property, international standards have changed and evolved. In BPM6, published in 2009, R&D is regarded as a produced asset, and sales of patents are recorded as trade in services. This treatment follows from the view, reflected in both BPM6 and the 2008 SNA, that R&D should be brought within the production boundary, and that the results of R&D activity should be regarded as produced assets that can be traded like any other commodity.

1.19 Difficulties in the attribution of investment and income also can occur when the immediate owners of the investments differ from the ultimate owners at the top of the ownership chain. To the extent that companies can and will report the information, there is significant value to reporting investments in MNEs on an “ultimate beneficial owner” (UBO) basis, in addition to the immediate counterparty basis required for conventional balance of payments accounts. In some cases, the differences on the two bases are striking. For example, on an immediate counterparty basis, the book value of the direct investment position of Luxembourg in the United States was $113 billion in 2008, but on a UBO basis, it was much smaller—only $11 billion. For the Middle East, in contrast, the position on an immediate counterparty basis was $15 billion, but on a UBO basis, it was considerably larger—$51 billion. These divergent patterns reflect the fact that many investments whose ultimate origins are in other countries, such as those in the Middle East, are routed through countries of convenience such as Luxembourg.

1.20 The fourth edition of the OECD Benchmark Definition of Foreign Direct Investment, released in 2008, has addressed the need to follow investments to their ultimate origins and destinations. It includes specific recommendations for identification of ultimate investing countries. However, following investments down ownership chains to ultimate host countries has been placed on the research agenda, due to a variety of conceptual and practical issues that could not be resolved in the time available. Included
among them are issues related to the fungibility of money and to the fact that additional funding may be added to those of the direct investor at each link in the ownership chain.

B. Multi-national enterprises and gaps in the statistical system

1. Multi-national enterprises and the measurement of gross domestic product and gross national income at current prices

**Offshoring of royalties and licenses**

1.21 In the previous section, we discussed the transfer of intellectual property to royalty and license companies. Suppose that an intellectual property product (for example, software) was developed in country A, which is also the location of the parent corporation, and that a wholly owned subsidiary royalty and license company is established in country B to book revenue from license sales. The GDP of country A declines and the GDP of country B increases, though because of the 2008 SNA’s special treatment of earnings on foreign direct investment, the GNI of countries A and B should be unaffected by where the license sales are booked. Economic theory suggests that economic ownership of the intellectual property resides with the parent corporation. The parent corporation undertook the risks associated with the development of the intellectual property product and is the final beneficiary of the rewards from its use. If the economic ownership conceptually belongs in country A, then the booking of the sales to the royalty and license company in country B implies that GDP in country A is understated and GDP in country B is overstated.

**Outsourcing and offshoring of intermediate services**

1.22 The offshoring of intermediate services has also received considerable attention. There are two major measurement issues:

(a) How well do the data on trade in services capture the imports of intermediate services? Traditional services categories and sampling frames may fall behind in their ability to capture fast-changing services, and to the extent that they are missed, imports may be understated, causing GDP to be overstated;

(b) Many statistical offices use extrapolators that are based on fixed ratios, for example ratios of sales to value added. Rapid movement from in-house production of services to domestic or foreign sources would cause these ratios to change, implying bias in the extrapolators of GDP. This problem can be addressed by regularly benchmarking the national accounts to comprehensive and reliable source data that, in particular, cover the domestic and foreign suppliers of intermediate services.

**Misleading transfer prices**

1.23 As we have noted, MNEs may have incentives to raise or lower transfer prices on exports and imports moving to or from affiliated entities, though tax authorities will attempt to enforce economically appropriate transfer prices. To the extent that MNEs are successful in booking transfer prices that overstate or understate the true economic value of the transaction, GDP will be misstated. Assuming that the transfer prices are consistently reflected in the company’s books, all three approaches to measuring GDP (the production approach, expenditure approach, and income approach) will be in error. However, because of the SNA’s special treatment of reinvested earnings on FDI, GNI should be less affected by (or, in the case of wholly owned foreign affiliates, invariant to) the use of incorrect or misleading transfer prices (because GNI reflects the offsetting
misstatement of income of the foreign subsidiaries). Unfortunately, statistical offices have very little ability to adjust for erroneous transfer prices. However, continuing efforts by tax authorities to audit and align transfer prices with market prices hold the potential for limiting and reducing the distortions due to transfer pricing.

2. Multinational enterprises, offshoring, and the understatement of real gross domestic product and productivity

Non-comparable imports

1.24 When a domestic parent firm switches from a domestic supplier of inputs to a foreign subsidiary supplying those inputs, the difference in price between the suppliers generally does not appear in the deflators that are used for domestic and foreign prices in the final expenditure approach or in the deflators for intermediate consumption in the production approach. The reason that this difference in price is not recorded is that for most countries, prices are collected from sellers rather than purchasers, and the producer indexes for domestic prices (PPIs) are compiled in a separate data collection from those for import prices. An article by Michael Mandel in Business Week argues that the failure to record the price declines that occur with the switch to foreign suppliers causes the growth of real GDP to be overstated during periods of increased outsourcing.4

1.25 Mandel suggests that the solution to the problem would be to modify the procedure for compiling the import price index when new imports appear by directly comparing the price of the imported good to the domestic good that it replaces. However, it may be difficult to make a direct comparison of the costs of the domestic versus the foreign made goods (imports). If, for example, a golf club company switches from a domestic supplier to a foreign supplier it is likely to be at the end of the existing contract for the old model “driver” and at the introduction of the new model. Now while to many the differences in models appear cosmetic, to the many golfers that believe a new model will cure all their problems, they are willing to pay a significant premium for the new club. As a result, price statisticians deem the older and newer models “noncomparable” and simply link the old index to a new index for the imported good at the same level and then extrapolate forward using period-to-period changes in the new imported good’s price. To the extent that the imported goods on a quality-adjusted basis are cheaper, real imports will be understated, and real GDP and productivity will be overstated. In addition, import prices will be overstated and overall inflation will be understated.

1.26 This import price problem is similar to the old “new goods” problem that occurs whenever new generations of goods and services replace earlier generations: how much of the price difference represents the improved quality or increased functionality of the new good and how much is price?

1.27 One method used for computers is to observe the drop in the price of the previous generation computer that is required to keep it competitive with the newer generation computer. Presumably this difference is the value consumers place on the improved characteristics embodied in the new computer. Alternatively, where lots of data is available on prices, sales, and characteristics of the good – as there is with computers – the hedonic regressions can separate out the value consumers place on the next generation computers’ characteristics from the pure price difference between the models.

1.28 Unfortunately, most imports are intermediate products and there is little available data with which to run hedonic regressions or compare market prices of domestic and foreign inputs. Indeed, the switch to foreign suppliers can occur quite quickly. In just a

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three-year period, most golf-club drivers in the United States went from being supplied by domestic suppliers to being supplied by Chinese suppliers.

1.29 One indirect means of estimating the extent of the problem is suggested by a study by Feenstra and Reinsdorf.\(^5\) In effect, they estimated the elasticity of demand for imports and then measured the change in imports’ market share and used the two pieces of information to “backout” the quality-adjusted price differential between imported and domestically supplied goods. For the United States, they found that real GDP growth was overstated by 0.1 percentage points and productivity growth, by 0.2 percentage points. They also note that this problem of “new goods” extends to virtually all goods and services. In the United States, the switch to new goods and services currently is addressed via hedonic techniques for about 20 per cent of goods and services included in GDP. For the other 80 per cent, linking is often used, suggesting that the upward bias imparted to real GDP by the overstatement of import prices and understatement of real imports (imports account for about 17 per cent of US GDP) is more than offset by the overstatement of domestic prices and the resulting understatement of domestically produced GDP.

1.30 There are two possible solutions to this import price bias. The first would use micro-data research to estimate the price difference between domestic and foreign suppliers for similar goods in order to develop bias adjustments for import prices. The second, which is being explored by the U.S. Bureau of Labor Statistics and the Census Bureau, is to develop a cost-based survey of domestic producers to supplement the existing import-export survey of importers and exporters.

IV. Recommendations for future work

1.31 The problems that have been discussed in this chapter may vary in their responsiveness to additional work. Although some of them may result in part from national accounts conventions concerning the residence of enterprises, these conventions are well established, and changing them likely would result in even greater problems than those that have been identified above. Treatment of intellectual property transactions, in contrast, likely is an area where further study would be worthwhile. Even if it does not result in changes in the recommended treatment, it could result in a better understanding of the conditions under which an economic transfer of an intellectual property product should be deemed to have occurred and of the values that should be ascribed to the transaction. Likewise, additional work is needed in tracking foreign direct investments to their ultimate destinations, which would allow greater consistency between the statistics on foreign direct investment recorded in balance of payments accounts and statistics on the related operations in countries of ultimate destination. As noted, this is an area that has been placed on the OECD research agenda of issues on which further research is to be done following the publication of the fourth edition of the OECD Benchmark Definition of Foreign Direct Investment. Finally, the issue of noncomparable imports and associating the prices of products that had been purchased domestically with those of products that have begun to be imported needs further work. In the United States, this issue has been discussed at a number of seminars and conferences, and work is ongoing at the U.S. Bureau of Labor Statistics to develop new indexes that, if put into use, should at least partially address the issue.

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Annex 1.1

Case study of Ireland – multinationals and their impact on national accounts and balance of payments statistics

1.1.1 The Republic of Ireland is one of the most globalised economies in the world. The scale of openness of the economy can be gauged by Table 1.1.1 below which shows the importance of international trade in the economy.

Table 1.1.1
International trade 2008

<table>
<thead>
<tr>
<th></th>
<th>Exports</th>
<th>Imports</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>€bn</td>
<td>%GDP</td>
</tr>
<tr>
<td>Goods</td>
<td>81.3</td>
<td>44.2</td>
</tr>
<tr>
<td>Services</td>
<td>69.0</td>
<td>37.6</td>
</tr>
<tr>
<td>Total</td>
<td>150.3</td>
<td>81.8</td>
</tr>
</tbody>
</table>

1.1.2 The significance of MNEs in the international trade of Ireland can be seen if we consider that the top ten foreign owned MNEs in 2008 account for €51bn of exports or 34 per cent of all exports of goods and services. These same enterprises accounted for imports of goods and services of €42 bn.

1.1.3 The overall trend in the activities of MNEs in Ireland relative to indigenous firms in industry from 1985 onwards can be gauged from Table 1.1.2 below. These activities have been generally concentrated in pharmaceuticals, electronic engineering and software development.

Table 1.1.2
Output and employment in industry by nationality of owner

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Total employment - Irish owned</td>
<td>111,010</td>
<td>105,884</td>
<td>116,714</td>
<td>132,666</td>
<td>110,473</td>
</tr>
<tr>
<td>Total employment - Foreign owned</td>
<td>76,289</td>
<td>88,293</td>
<td>103,864</td>
<td>122,978</td>
<td>107,330</td>
</tr>
<tr>
<td>Total gross output (€millions)</td>
<td>18,327</td>
<td>25,347</td>
<td>42,640</td>
<td>92,361</td>
<td>102,715</td>
</tr>
<tr>
<td>Percentage gross output - Irish owned</td>
<td>50</td>
<td>45</td>
<td>35</td>
<td>22</td>
<td>18</td>
</tr>
<tr>
<td>Percentage gross output - Foreign owned</td>
<td>50</td>
<td>55</td>
<td>65</td>
<td>78</td>
<td>82</td>
</tr>
</tbody>
</table>

A. Consistency Unit

1.1.4 By the mid 1990s it was clear to the management of Central Statistics Office of Ireland (CSO) that in order to counter the difficulties experienced in compiling the national accounts, CSO needed to establish a unit dedicated solely to dealing with the activities of the MNEs operating in Ireland. This unit was called the Consistency Unit and was given the responsibility of analysing all aspects of data submitted to the CSO by MNEs and ensuring the coherence and plausibility of the various statistical and administrative returns used by CSO in compiling our national accounts and other related statistics. This Unit is within national accounts but interacts with a large network of statisticians working both in the survey areas and with administrative records. The administrative records, which are particularly important for Ireland, are the Corporation Tax files.

1.1.5 All of the data submitted to the Office by the 100 most significant MNEs is analysed and checked to see if a coherent picture is emerging from the data. Where this is not the case the MNE is contacted and visited if necessary to discuss their operations in some detail in order to resolve whatever the cause of the inconsistency might have been. The staff of the Unit includes a Chartered Accountant who assists in these company visits.
and more generally advises on accountancy matters relating to the statistics being compiled.

1.1.6 There are some important features in the Irish statistical system that facilitates the consistency analysis:

- The CSO publishes the merchandise trade and Balance of Payments (BoP) data (based on statistical surveys) which means that, when adjustments are required, they can be applied at the most appropriate source;

- The CSO’s unique access to company accounting records held by the Revenue Commissioners (tax authorities) allows a detailed comparison of the operating surplus calculations for large companies with their profits data from the BoP source. This allows for a reconciliation of operating surplus and primary income outflows at a very detailed level, so that GDP and GNI calculations for ‘consistency’ companies can be balanced;

- The Consistency Unit brings together a wide range of data for the top individual exporters, including monthly turnovers, annual turnovers, purchases, stocks, imports, exports, value added, service imports and exports and Balance of Payments profit variables. A limited number of variables are compared each quarter but the more detailed examinations are only possible on an annual basis since the detailed Structural Business Survey results and tax accounts for each company are only available annually;

- The majority of the MNEs exports all of their outputs and also imports most of their raw materials. It is therefore possible to build up a coherent picture of each company, comparing turnover with exports and purchases with imports.

1.1.7 When dealing with the inter affiliate trade of MNEs difficulties can arise in respect of estimating the market prices that apply to these transactions. However, in general the approach followed by CSO in achieving consistency is to focus on the overall impact of the MNE on the macro economic accounts of Ireland. In doing this Consistency Unit does not in general adjust data to remove the impact of transfer pricing. Instead we ensure that the value added generated in the economy by an MNE is outflowed through the profits earned being attributed to the foreign parent. Therefore all that remains in the economy are the compensation of employees, tax paid and the value other local linkages in the economy.

1.1.8 Adopting this approach reduces the possibility of creating international asymmetries as it is difficult to coordinate the adjustments by national statistical offices in both exporting and importing economies to the value of goods and services that might be subject to transfer pricing.

1.1.9 However, a major drawback of following this approach is that productivity measures based on GDP can be distorted and overstated. Consequently, gross national income (GNI) rather than GDP is a better indicator of national wellbeing in the case of Ireland. This is due to the large share of GDP explained by profits (see Table 1.1.3), which although generated in Ireland, accrue to the benefit of foreign parent corporations. These profits are included in Irish GDP but are excluded from its GNI.
Table 1.1.3
Transition from GDP to GNI

<table>
<thead>
<tr>
<th>Period</th>
<th>GDP ($millions)</th>
<th>Net Factor Income from Rest of the World ($millions)</th>
<th>GNI ($millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2007</td>
<td>189,751</td>
<td>-28,507</td>
<td>161,244</td>
</tr>
<tr>
<td>2008</td>
<td>183,991</td>
<td>-27,231</td>
<td>156,760</td>
</tr>
</tbody>
</table>

B. Other MNE activities

1.1.10 In addition to the enterprises covered by the Consistency Unit, the impact of MNEs on the Irish national accounts also extends to companies performing specific activities that would formerly have been carried out at corporate headquarters. These activities involve captive and agency insurance, treasury companies, special purpose vehicles, shared services, call centres etc. Table 1.1.4 gives some idea of the scale of some of these activities in Ireland in 2008.

Table 1.1.4
Financial and other services enterprises related to MNEs

<table>
<thead>
<tr>
<th>Type of Activity</th>
<th>No of companies</th>
<th>Balance sheet value ($millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Treasury companies – (agency, captive, standalone etc.)</td>
<td>148</td>
<td>256,567</td>
</tr>
<tr>
<td>Securitisation vehicles (SPVs, SPEs, conduits etc.)</td>
<td>237</td>
<td>243,088</td>
</tr>
<tr>
<td>Insurance enterprises - captive and agency</td>
<td>92</td>
<td>14,251</td>
</tr>
<tr>
<td>Leasing enterprises</td>
<td>39</td>
<td>36,106</td>
</tr>
<tr>
<td>Total</td>
<td>516</td>
<td>550,012</td>
</tr>
</tbody>
</table>

1.1.11 These activities are generally ancillary to the main activity of the MNE. However, the scale of some of the activities is quite significant and poses a different challenge to that addressed by the Consistency Unit. In these cases we are primarily making use of the balance of payments survey responses. These questionnaires have been customised for the various activities being covered hence there is a different form for insurance activities and for treasury activities, etc. A detailed consultation process with various industry groups took place when these questionnaires were being designed. Although the questionnaires differ, the objective is to obtain a full presentation of the quarterly or annual accounts with a full geographical breakdown for all items from both current account (P&L) and balance sheet including stock/flow reconciliations. This approach meets both BOP and national accounts data requirements.

1.1.12 The challenge when dealing with these types of entities is primarily one of identification. We need to identify a reporting entity for the firm because generally a service provider such as an accountancy firm or a financial services company or even a legal company is charged with meeting the reporting obligations of these companies, some of whom have no separate physical presence in the economy. It follows therefore that they could very easily continue to operate without being identified by the NSI.

1.1.13 Through regular register inquiries and also using stock exchange listings (for securitisation companies) together with the use of industry associations many of these

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6 The value of balance sheet assets is similar to that of liabilities for these types of financial flows and stocks because both the financing (liabilities) originate from abroad and the investments (assets) are generally placed outside Ireland.
types of companies have been identified but there is always the danger that some very small entities engaged in large transactions are being missed.
CHAPTER 2

Multi-national enterprises, foreign direct investment and related income flows

I. Introduction

2.1 The collection of high quality data on foreign direct investment (FDI) is a challenge in compiling both the international and the national economic accounts. This chapter sets out why FDI poses such a challenge, and describes an international survey that aims to alleviate the measurement issues.

2.2 FDI is an important category in the international accounts, and is one of the five functional categories used as the primary basis for classifying data on financial transactions, positions, and income. A foreign direct investment relationship occurs when an investor in one economy has an ownership interest giving a significant degree of influence or control over the management of an enterprise in another economy. By convention, direct investment exists when an investor owns at least 10 per cent of voting power. FDI is associated with a longer-term commitment than other forms of cross-border investment, and often involves features such as the provision of new funds and technology transfers. However, FDI in strategic sectors of the domestic economy can give rise to national concerns.

2.3 FDI is also important in the national economic accounts. Earnings on FDI are often a major component of property income from abroad in the distribution of income accounts. Also, net property income from abroad is added to domestic production (GDP) to derive gross national income (GNI). The reinvestment of these overseas earnings is recorded as lending to the rest of the world in the financial account of the national accounts. In addition, data on these FDI transactions are recorded separately as memorandum items in the several financial account categories (debt securities, loans, equity, trade credit, other).

2.4 Experience has shown that the most effective way of assuring the availability of high quality and comprehensive data on FDI is to conduct a survey. No other method is as effective in identifying enterprises that are foreign owned or that have investments abroad, and surveys are important in obtaining data on such items as earnings and direct investment positions. The International Monetary Fund’s (IMF) 2009 Coordinated Direct Investment Survey (CDIS) is a major global statistical undertaking that is intended to improve the quality and availability of data on FDI used in the international and national economic accounts.7 At its meeting in November 2009, the IMF Committee on Balance of Payments Statistics agreed with the IMF’s proposal to convert the CDIS into an annual exercise, which will promote improvements in the quality and availability of data on FDI through future years.

II. Background

2.5 The conceptual framework of the balance of payments and international investment position (as found in the sixth edition of the Balance of Payments and International

7 The CDIS home page can be found at http://www.imf.org/external/np/sta/cdis/index.htm
Investment Position Manual (BPM6)) is entirely consistent with that of the 2008 System of National Accounts (2008 SNA), however, the data are organised differently. One of the major differences between the two frameworks is the use of functional categories in the balance of payments and international investment position accounts. The five functional categories are direct investment, portfolio investment, financial derivatives (other than reserves) and employee stock options, reserve assets, and other investment. These functional categories are essentially based on the motivations of the investor, as opposed to the instrument-based classification in the 2008 SNA.

2.6 FDI is a major category of cross-border investment. Unlike other categories of cross-border investment, it brings a significant degree of influence (and, more often, control) over the direct investment enterprise that receives equity investment. The relationship between enterprises involved in direct investment tends to be lasting. FDI also has nonfinancial dimensions, such as management expertise, technology transfer, marketing, and market access that are not usually associated with other forms of cross-border investment. Enterprises in a direct investment relationship are more likely to trade with each other. FDI tends to provide a stable source of funds during periods of market stress.

2.7 An FDI relationship involves a direct investor, a direct investment enterprise, and sometimes a fellow enterprise. A direct investor is an entity or group of related entities that is able to exercise control or a significant degree of influence over another entity (the direct investment enterprise) that is a resident of a different economy. A direct investment enterprise is an entity subject to control or a significant degree of influence by a direct investor, obtained through holding 10 per cent or more of voting power. Fellow enterprises do not meet the threshold of equity investment in each other, but are in a direct investment relationship because they have a common investor, who is a direct investor in at least one of them. The structural arrangements are often complex, and a single entity may be, at the same time, a direct investor, a direct investment enterprise, and a fellow enterprise in its relationships to other enterprises.

2.8 Under BPM6, data on direct investment may be shown on either an Asset/Liability basis (this basis is used for compiling the international economic accounts under BPM6) or on a Directional Principle basis (this basis is usually preferred for analyses at sub-global levels, such as by individual country or industry). On the Asset/Liability basis, assets and liabilities are shown in the account on a gross basis. On a Directional Principle basis, data at high levels of aggregation are netted. On this basis, data are shown separately for inward and outward direct investment. Inward direct investment includes assets and liabilities between resident direct investment enterprises and their direct investors; in addition, it includes assets and liabilities between resident and nonresident fellow enterprises if the ultimate controlling parent is nonresident. Outward direct investment includes assets and liabilities between resident direct investors and their direct investment enterprises; in addition, it includes assets and liabilities between resident and nonresident fellow enterprises if the ultimate controlling parent is resident. Several of the measurement challenges associated with direct investment exist only in connection with data that are on a Directional Principle basis. The terms “inward” and “outward” direct investment are used when referring to this presentational basis.

10 This is not to say that instrument classification is not used in the balance of payments/IIP. The financial instruments used in BPM6 are the same as those used in the 2008 SNA. They are, however, at the secondary level of classification, below the functional categories.
The number of economies reporting inward FDI investment positions to the IMF’s Statistics Department rose from 71 economies that reported data for end-1998 to 99 economies that reported data for end-2008. The number reporting outward FDI positions also grew strongly, from 61 economies reporting FDI positions for end-1998 to 90 economies that reported data for end-2008. At the same dates, the value of the global reported inward direct investment positions rose from $3,764 billion to $21,405 billion, and the value of reported outward direct investment positions grew from $4,647 billion to $22,760 billion. These increases in value captured not only the increase in the number of economies reporting, but also improved coverage and actual increases in investment by those who were already reporting.

In regard to the top ten recipients of direct investment (inward FDI), the value reported rose from $3,010 billion for end-1998 to $10,790 billion for end-2008, or about three and a half times as large (see Table 2.1). The composition of the top ten changed substantially. Whereas the United States remained the top recipient throughout this time, with its inward direct investment almost tripling, Luxembourg and Mainland China gained prominence as recipients of direct investment, becoming second and sixth largest recipients of direct investment as at the end of 2008, with stocks of $1,516 billion and $876 billion, respectively (neither of these economies produced estimates of their direct investment positions for end-1998.) Spain saw the stock of its inward direct investment increase almost five and a half times, while Belgium, Germany, China Hong Kong SAR, and the Netherlands each saw the stock of their inward direct investment rise to more than three and a half times their end-1998 levels. Canada and Australia dropped out of the top ten over that period.

Table 2.1
Top ten recipients of inward direct investment and value 1998 and 2008 positions (in billions of U.S. dollars)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>920</td>
<td>United States</td>
<td>2,646</td>
</tr>
<tr>
<td>France</td>
<td>548</td>
<td>Luxembourg</td>
<td>1,516</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>355</td>
<td>France</td>
<td>1,029</td>
</tr>
<tr>
<td>Germany</td>
<td>252</td>
<td>United Kingdom</td>
<td>986</td>
</tr>
<tr>
<td>China, P.R.: Hong Kong</td>
<td>225</td>
<td>Germany</td>
<td>949</td>
</tr>
<tr>
<td>Belgium</td>
<td>180</td>
<td>China, P.R.: Mainland</td>
<td>876</td>
</tr>
<tr>
<td>Netherlands</td>
<td>164</td>
<td>China, P.R.: Hong Kong</td>
<td>835</td>
</tr>
<tr>
<td>Canada</td>
<td>143</td>
<td>Belgium</td>
<td>671</td>
</tr>
<tr>
<td>Spain</td>
<td>118</td>
<td>Spain</td>
<td>639</td>
</tr>
<tr>
<td>Australia</td>
<td>105</td>
<td>Netherlands</td>
<td>638</td>
</tr>
<tr>
<td>Total of top ten</td>
<td>3,010</td>
<td>Total of top ten</td>
<td>10,785</td>
</tr>
</tbody>
</table>

For direct investment abroad, the top ten direct investing economies (outward FDI) saw the value of their total investment increase from $4,065 billion for end-1998 to $12,897 billion for end-2008, or tripling (see Table 2.2). The United States remained the top investing economy throughout this period. Its total direct investment abroad in 2008 was more than three times its 1998 level. As with inward direct investment, one of the more striking changes between 1998 and 2008 was the emergence of the importance of Luxembourg as a major outward direct investor (in 1998 it did not produce estimates of direct investment abroad). It is notable that Luxembourg is the home economy for a large number of special purpose entities that are engaged in pass-through finance). Switzerland, Germany, China Hong Kong SAR, the Netherlands, and the United Kingdom all more than
tripled their stock of direct investment abroad. Canada and Italy dropped out of the top ten, replaced by Luxembourg and Belgium.

Table 2.2
Top ten providers of outward direct investment and value 1998 and 2008 positions (in billions of U.S. dollars)

<table>
<thead>
<tr>
<th>Economy</th>
<th>Value of outward direct investment 1998</th>
<th>Economy</th>
<th>Value of outward direct investment 2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>1,196</td>
<td>United States</td>
<td>3,698</td>
</tr>
<tr>
<td>France</td>
<td>747</td>
<td>United Kingdom</td>
<td>1,567</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>515</td>
<td>Luxembourg</td>
<td>1,465</td>
</tr>
<tr>
<td>Germany</td>
<td>365</td>
<td>France</td>
<td>1,302</td>
</tr>
<tr>
<td>Japan</td>
<td>270</td>
<td>Germany</td>
<td>1,248</td>
</tr>
<tr>
<td>Netherlands</td>
<td>229</td>
<td>Netherlands</td>
<td>821</td>
</tr>
<tr>
<td>China, P.R.: Hong Kong</td>
<td>223</td>
<td>China, P.R.: Hong Kong</td>
<td>775</td>
</tr>
<tr>
<td>Switzerland</td>
<td>184</td>
<td>Switzerland</td>
<td>726</td>
</tr>
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<td>Canada</td>
<td>171</td>
<td>Japan</td>
<td>680</td>
</tr>
<tr>
<td>Italy</td>
<td>165</td>
<td>Belgium</td>
<td>615</td>
</tr>
<tr>
<td>Total of top ten</td>
<td>4,068</td>
<td>Total of top ten</td>
<td>12,897</td>
</tr>
</tbody>
</table>

III. Statistical treatment recommended in international standards

2.12 As noted earlier, direct investment is a balance of payments concept (as a functional category) as well as a category or component involving several areas of the national accounts. In the 2008 SNA, these include the treatment of the retained earnings of direct investment enterprises in the income and financial accounts, and the recording of direct investment transactions as memorandum items in the financial account.

2.13 Unlike most other institutional units, which retain all their saving, direct investment enterprises are deemed to retain only that portion of their saving that is not attributable to their direct investor(s). That is, direct investment enterprises are deemed to distribute their saving to their direct investors in proportion to the equity share held by the latter on the rationale that, given its influence on the direct investment enterprise, the direct investor makes the saving decision, not the direct investment enterprise. The (imputed) income flow from the direct investment enterprise to the investor is referred to as reinvested earnings and the counterpart imputation in the financial account is referred to as the reinvestment of earnings in BPM6.

2.14 There is a parallel treatment in the 2008 SNA. Reinvested earnings on foreign direct investment are identified as a separate category within the entrepreneurial income and allocation of other primary income account.

'Retained earnings of a corporation or quasi-corporation are equal to the distributable income less the dividends payable or withdrawal of income from the corporation or quasi-corporation respectively. If the foreign direct investment enterprise is wholly owned by a single foreign direct investor (for example, a branch of a foreign enterprise), the whole of the retained earnings is deemed to be remitted to that investor and then reinvested, in which case the saving of the enterprise must be zero. When a foreign direct investor owns only part of the equity of the direct investment enterprise, the amount
that is deemed to be remitted to, and reinvested by, the foreign investor is proportional to the share of the equity owned. (See 2008 SNA, para. 7.139)'

2.15 As a consequence of treating reinvested earnings as an income flow and reinvestment of earnings as a financial account flow, reinvested earnings are included in the calculation of GNI or the investor economy (positive) and the economy of the direct investment enterprise (negative).

2.16 Reinvestment of earnings is not identified separately within the main body of the financial account in the 2008 SNA; it is included indistinguishably with equity (there are separate sub-categories for listed shares, unlisted shares, and other equity in the 2008 SNA financial account). However, the 2008 SNA recommends that all financial account transactions in foreign direct investment be recorded as memorandum items to the account.

‘Transactions in financial assets and liabilities arising from the provision of, or receipt of, foreign direct investment are to be recorded under the appropriate categories: debt securities, loans, equity, trade credit or other. However, the amounts of foreign direct investment included within each of those categories should also be recorded separately as memorandum items. (See 2008 SNA, para. 11.129)’

2.17 In addition, although not explicitly identified, direct investment positions (assets and liabilities) will be recorded within the instrument detail in the (national and sector) balance sheet accounts. Often, because of limitations in data sources, and the difficulty in obtaining a market value as there is no observable price (much direct investment is 100 per cent owned by the direct investor), the value of direct investment equity is initially obtained at book value.

IV. Measurement problems

2.18 There are a number of difficulties associated with measuring FDI. These include:

(a) Identifying the units that meet the definition of direct investor, direct investment enterprise, and fellow enterprise;\(^\text{11}\)

(b) Differences in the level of consolidation between business registers, particularly where different registers are used for international and national account purposes;

(c) Conducting a survey so that the respondents provide data according to the concepts used in direct investment;

(d) Ensuring that the data reported by the direct investor are reported using information from the books of the direct investment enterprise abroad.

2.19 The development of a business register that identifies whether or not an entity is in a direct investment relationship is an important step toward comprehensively identifying key units in direct investment relationships. Most business surveys that collect information feeding into the national accounts do not routinely collect information on whether an entity is in a direct investment relationship. To build a register that includes that information may require considerable effort. In addition, because much of the information (both financial and on equity holders) may not be routinely produced for any internal company purpose, it

\(^{11}\) For further detail, see the discussion of the Framework for Direct Investment Relationships in Chapter 6, Section B (and particularly Box 6.1) in BPM6, and Annex 4 of the OECD Benchmark Definition of Foreign Direct Investment, fourth edition (available at: http://www.oecd.org/document/33/0,3343,en_2649_33763_33742497_1_1_1_1,00.html).
often takes persistence on the part of the statistical agency to obtain the information from the respondent. This is true even where data collection is supported by statutory authorities that protect the confidentiality of the data reported and carry substantial penalties for nonresponse.

2.20 A further complication may occur in regard to consolidation of statistical units, particularly where separate agencies have responsibility for compiling data for the international and national economic accounts. This issue can even arise where a single agency has such responsibility but uses different registers for compiling data for the international and national accounts. In particular, for national accounts purposes, often economies include each individual enterprise on their national registers. In contrast, for international economic account purposes (such as for measuring direct investment flows and positions), economies often consolidate domestic units that are under common control for statistical purposes, in much the same fashion that a business consolidates business units for reporting to stockholders. As a consequence of these differences in consolidation, there may be inconsistencies in classification by industry, domestic sector, etc. of direct investors, direct investment enterprises, and fellow enterprises between the international and national economic accounts.

2.21 It also is noteworthy that, looking just within the international economic accounts, the degree of consolidation can affect whether a given statistical unit is recorded in inward or outward foreign direct investment. This is because consolidation may affect whether or not a given unit is a fellow enterprise. This is significant because, under the new international statistical standards, a resident fellow enterprise is recorded in inward (or outward) foreign direct investment stocks or flows depending upon the location of its ultimate controlling parent. Specifically, under the new standards, a given resident fellow enterprise’s stocks and flows vis-à-vis its non-resident fellow enterprises are recorded in outward FDI if the resident enterprise’s ultimate controlling parent is a resident, and are included in inward FDI if the resident enterprise’s ultimate controlling parent is a non-resident. In contrast, a resident direct investor’s stocks and flows vis-à-vis its foreign direct investment enterprises are always recorded in outward direct investment, and a resident direct investment enterprise’s stocks and flows vis-à-vis its foreign direct investor are always recorded in inward direct investment.

2.22 Identifying fellow enterprises is particularly difficult, because the concept is not based on the equity holder of the investor/investee. A common situation involves the following diagram 2.1:

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12 Presentations of data on direct investment are typically on an Asset/Liability basis (this basis is used for compiling the international economic accounts under BPM6) or on a Directional Principle basis.
Diagram 2.1
Direct investor (enterprise A) and its two direct investment enterprises (enterprises B and C)

Economy 1

A

50 equity
(100 per cent)

Economy 2

B

2 equity
(100 per cent)

100 loan

250 loan

Economy 3

C

350 debt issue on international financial markets (unrelated entities)

2.23 In diagram 2.1, enterprise A (in Economy 1) holds all the equity in enterprise B (in Economy 2) and in enterprise C (in Economy 3). Thus, enterprise A is a foreign direct investor in foreign direct investment enterprises B and C. Enterprise C raised funds on international financial markets and then lends the funds to enterprises A and B. If the compiler in Economy 3 approaches enterprise C to collect data on FDI, it has to be explained that the loan by enterprise C to enterprise B should be recorded in FDI, even though enterprise C owns no equity in enterprise B. Similarly, the compiler in Economy 2 has to be very careful to explain that the lending to enterprise B should be recorded in FDI. Indeed, enterprise C’s lending to enterprise A is also FDI (referred to as “reverse investment”), because all equity and debt positions between related entities are recorded in FDI (except where both parties are certain types of financial intermediaries). These aspects of the definition of FDI are not straightforward, and it can be difficult to convert the definition into survey report questionnaires, or to collect and compile data that are fully consistent with the definition.

2.24 Another statistical challenge is that information on equity holdings is often not recorded on the same basis by the direct investor as it is by its direct investment enterprise. There are several reasons for this, of which the following are important. First, while the direct investment enterprise will record its accumulated retained earnings as part of

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13 Positions between enterprises B and C are recorded in FDI because both of these enterprises are under the control or influence of the same direct investor (enterprise A).
owners’ equity, it is not uncommon for the direct investor to record its investment in the direct investment enterprise at acquisition price, and make no further adjustment. A second reason is that, whereas the direct investment enterprise may adjust its assets and liabilities to reflect current market prices or exchange rates, with the concomitant adjustment to owners’ equity, these adjustments may not be included on the books of the direct investor. Data from the books of the direct investment enterprise are preferred in compiling estimates of international investment positions or national balance sheets in the international and national economic accounts, because these books reflect values that are more consistent with the market value principle that is preferred in compiling both sets of accounts.

V. Proposals for operational treatment in the accounts

2.25 Much work is being done to help address some of the problems in identifying direct investment entities and the collection of the data on a consistent basis. For example, a number of barriers to the exchange of confidential data within Europe have been removed, and major efforts are underway worldwide to improve the compilation of data on FDI that are consistent with the updated standards. In particular, the IMF, in conjunction with its interagency partners – including the European Central Bank (ECB), Eurostat, the OECD, United Nations Conference for Trade and Development (UNCTAD), and the World Bank – has launched the 2009 Coordinated Direct Investment Survey (CDIS).

2.26 The CDIS has attracted considerable support. As of December 2009, 132 economies have indicated a willingness to participate (see Table 2.3). The purpose of the CDIS is to improve the quality of direct investment position statistics in the international investment position and by immediate counterpart economy. Specifically, the objectives of the CDIS are to collect the following data items, with a measurement date of December 31, 2009:

For all economies, comprehensive and harmonised data on direct investment positions, broken down between equity and debt, and for debt to be further broken down between claims and liabilities, by economy of direct investor (for inward direct investment), or of direct investment enterprise (for outward direct investment).

2.27 Data for both inward and outward direct investment positions are sought.

2.28 To maximise coverage, quality and consistency, the IMF formed a Task Force in June 2007 to prepare a Guide on the CDIS. In addition to the IMF’s interagency partners, eleven jurisdictions also participated in the Task Force14. The Guide was prepared in a near final form by March 2008 and posted to the IMF website. The final version in English has been translated into Arabic, Chinese, French, Russian, and Spanish. These documents can be found on the CDIS website at http://www.imf.org/external/np/sta/cdis/index.htm.

2.29 In addition to the Guide, the IMF, with the support of its interagency partners, conducted 10 regional seminars on the CDIS in 2008. These were held in Barbados (for economies and jurisdictions in the Caribbean and Atlantic); China PR; Luxembourg15 (for members of the European Union and of the European Free Trade Association); Malaysia (for economies in East and South Asia and the Pacific); Mexico (for Latin American economies); Oman (for economies in the Middle East); Slovenia (for formerly centrally

14 The jurisdictions were: Brazil, China PR, China Hong Kong, France, Japan, Mexico, the Netherlands, Oman, South Africa, United Kingdom, and the United States.
15 Two seminars were held in Luxembourg as there were too many participants to be accommodated in one seminar.
planned economies in South East Europe and Central Asia); Tunisia (for Francophone African economies); and South Africa (for Anglophone African economies). As a result of these seminars, it was clear that many participants are well advanced and needed no further input from the IMF, whereas others needed further assistance.

Table 2.3
Economies indicating an interest in participating in the CDIS (as of December 2009)

<table>
<thead>
<tr>
<th>N. America and Caribbean</th>
<th>Latin America</th>
<th>Europe: EU</th>
<th>Europe: Non EU</th>
<th>Former non EU</th>
<th>Middle East and North Africa</th>
<th>Sub-Saharan Africa</th>
<th>East and South Asia and Pacific</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aruba</td>
<td>Argentina</td>
<td>Austria</td>
<td>Albania</td>
<td>Armenia</td>
<td>Bahrain</td>
<td>Benin</td>
<td>Australia</td>
</tr>
<tr>
<td>Barbados</td>
<td>Bolivia</td>
<td>Belgium</td>
<td>Bosnia</td>
<td>Azerbaijan</td>
<td>Iran</td>
<td>Botswana</td>
<td>Bangladesh</td>
</tr>
<tr>
<td>Canada</td>
<td>Chile</td>
<td>Bulgaria</td>
<td>Croatia</td>
<td>Belarus</td>
<td>Israel</td>
<td>Burundi</td>
<td>Bhutan</td>
</tr>
<tr>
<td>Grenada</td>
<td>Costa Rica</td>
<td>Czech Rep.</td>
<td>Iceland</td>
<td>Georgia</td>
<td>Jordan</td>
<td>Cameroon</td>
<td>Cambodia</td>
</tr>
<tr>
<td>Guyana</td>
<td>Ecuador</td>
<td>Denmark</td>
<td>Macedonia</td>
<td>Kazakhstan</td>
<td>Kuwait</td>
<td>Cape Verde</td>
<td>China PR</td>
</tr>
<tr>
<td>Haiti</td>
<td>El Salvador</td>
<td>Estonia</td>
<td>Montenegro</td>
<td>Kyrgyz Rep.</td>
<td>Lebanon</td>
<td>Comoros</td>
<td>China HK SAR</td>
</tr>
<tr>
<td>Jamaica</td>
<td>Honduras</td>
<td>Finland</td>
<td>Norway</td>
<td>Moldova</td>
<td>Libya</td>
<td>Congo DR</td>
<td>China Macao SAR</td>
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<tr>
<td>Netherlands</td>
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<td>Mexico</td>
<td>France</td>
<td>Serbia</td>
<td>Tajikistan</td>
<td>Oman</td>
<td>Cote d’Ivoire</td>
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<tr>
<td>and Tobago States</td>
<td>Nicaragua</td>
<td>Germany</td>
<td>Switzerland</td>
<td>Federation</td>
<td>Syria</td>
<td>Ethiopia</td>
<td>Indonesia</td>
</tr>
<tr>
<td></td>
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<td>Greece</td>
<td>Turkey</td>
<td>Ukraine</td>
<td>Gambia, The</td>
<td>Gabon</td>
<td>Japan</td>
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<td>Hungary</td>
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<td>Luxembourg</td>
<td>Madagascar</td>
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<td>Maldives</td>
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<td>Malta</td>
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<td>Guinea</td>
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<td>Portugal</td>
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<td>Namibia</td>
<td>Portugal</td>
<td>Namibia</td>
<td>Solomon Islands</td>
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<td></td>
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<td></td>
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<tr>
<td></td>
<td>Sweden</td>
<td>South Africa</td>
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<td>Sweden</td>
<td>South Africa</td>
<td>Uganda</td>
<td>Zambia</td>
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<tr>
<td></td>
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<td>Tanzania</td>
<td>United States</td>
<td>Tanzania</td>
<td>Zambia</td>
<td></td>
</tr>
</tbody>
</table>

Total 132

2.30 In 2009, to maximise the effectiveness of the IMF efforts to assist countries to participate in the CDIS, workshops were held in four regions where further input from the IMF was needed. These were Anglophone African countries (in South Africa), Francophone African countries (in Tunisia), jurisdictions in the Caribbean and the Atlantic (in Barbados), and countries in South and East Asia (in India). These workshops focused on the model survey questionnaires that the IMF had prepared, and the participants’ implementation plans, especially with regard to the development of a survey frame, the
identification of respondents, and their communications strategies. In addition, the IMF held one-on-one meetings with China PR and Russia to address issues of particular significance for these countries.

2.31 The CDIS data are scheduled to be reported to the IMF by the end of September 2010, and they are scheduled to be published by the end of 2010/early 2011. Revised data will be submitted to the IMF by the end of March 2011 and these should be published in June or July 2011. In addition to the data, participants will be asked to provide metadata and indicate what improvements have been introduced as a result of conducting the CDIS.

2.32 The IMF is considering undertaking post-survey workshops in early 2011. The purpose of these workshops would be to review the results, explore what had been successful and what needs further work, help move participants to adopt the international standards, and to review future plans of participants.

VI. European statistical developments to improve data quality on direct investment

2.33 Many of the problems indicated above are clearly evident in bilateral data (in particular for transactions) within the European Union (EU). To address these problems, the EU (member states, the ECB and Eurostat) has initiated two significant projects. The first is the “FDI Network” which aims at ensuring that transactions above 2 billion euros (and a few below that threshold) between members of the EU are captured and reported consistently by both parties. The second initiative is the creation of the EuroGroups Register (EGR). The purpose of the EGR is to create a business register of all the major multinational enterprise groups in Europe, together with the legal entities (and country of residence) of the constituent parts of those groups. The aim of both of these initiatives is to lead to comprehensive and consistent reporting to national authorities. These initiatives are still evolving and are still in the early stages; progress to date has been positive.

VII. Recommended future work on the issue

2.34 With continued strong international support for the CDIS and continued research into direct investment data compilation and analytical issues, the quality of data on direct investment used in both the international and national economic accounts will be substantially improved. For example, with improved data collection by an economy, as well as the availability of bilateral counterpart data (“mirror data”) from other economies participating in the CDIS, there will be better coverage and consistency of balance sheet information for both equity and debt, assets and liabilities, and there will be benefits to the flow accounts as well. Indeed, the Guide identifies a number of income and financial account items that economies may choose to collect as part of the CDIS (these additional items will not be reported to the IMF). These include the collection of data on all aspects of direct investment income (interest, dividends, and reinvested earnings) and financial account transactions by instrument. The availability of mirror data can help an economy target areas where its own data may be weak.

2.35 A further benefit from CDIS participation may be improvement in the quality of data on foreign controlled enterprises—such as statistics on the Activities of Multinational Enterprises (AMNE statistics), and the closely related data on Foreign Affiliates Statistics (FATS) and data on the foreign controlled sector of the national accounts.

2.36 The work underway in various task forces and statistical committees should also further improve the quality of direct investment data used in the macroeconomic accounts.
The consolidation issue that was described above will be taken forward to and examined by these groups. In particular, work has been conducted in European task forces and statistical committees where direct investment issues have been studied, and the IMF is looking at direct investment issues as part of its work program on the BPM6 Compilation Guide. Also, under a joint ECB/Eurostat initiative and in close cooperation with FDI compilers in EU Member States, the FDI Network was formed in mid-2009. It has improved FDI data by facilitating a secure exchange of information between national compilers on large transactions.

2.37 We are pleased to be reporting that the CDIS and these other international efforts have been receiving strong support, and we are optimistic of further support and progress in the months ahead. To that end, the IMF Committee on Balance of Payments Statistics, at its meeting in Shanghai, China PR, in November 2009, gave very strong support to the IMF proposal that the CDIS become an annual undertaking. As a result, the 2009 CDIS will be the first in a series of annual surveys that will sharpen our understanding of cross-border investment and substantially improve the data used in the economic accounts.

VIII. References


OECD Benchmark Definition of Foreign Direct Investment, fourth edition

The Coordinated Direct Investment Survey Guide
CHAPTER 3

Special purpose entities

I. Introduction

3.1 Special Purpose Entities (SPEs) are companies that are part of a foreign multinational enterprise (MNE). They are set up in a specific country, often for fiscal reasons. Most of their financial and related income transactions are large and take place with companies in foreign countries. The economic relevance of SPEs in terms of their contribution to Gross Domestic Production (GDP) is generally small, but they may have large income flows and large financial stocks and flows. In the Netherlands, for example, they accounted for more than 1.6 trillion euros in assets and liabilities on their closing balance sheets in 2007. This is almost three times Dutch GDP.

3.2 This chapter deals with the statistical treatment of SPEs. The first sections are about the definition of SPEs in various statistical manuals, followed by a description of the problems in the recording and measurement of this special group of companies. In previous manuals the guidelines on how to treat SPEs statistically left enough room for countries to develop their own treatment. The new manuals pay more attention to SPEs, but the guidelines still leave room for this. Therefore, this chapter refers to the experiences of several countries (presented in Annexes) and describe their treatment of SPEs, the choices they made and the problems they face. Among the countries are the Netherlands, Ireland and Hungary, all countries that are host to a vast number of SPEs. Their practices can provide useful insights in how to deal with practical difficulties when compiling the national accounts. This may help other countries choose how to treat SPEs.

II. Background

3.3 Increasing globalisation goes hand in hand with an increase of the use of special purpose entities as part of MNEs. Their activities have grown, and so has the need for adequate statistical treatment of SPEs. This is reflected in the new manuals The 2008 System of National Accounts (2008 SNA), the OECD Benchmark Definition of Foreign Direct Investment, 4th edition (BD4) and the Balance of Payments and International Investment Position Manual, Sixth Edition (BPM6), which pay more attention to SPEs than in the preceding editions.

3.4 Special purpose entities are also known as: special purpose vehicles, shell companies, special financial institutions, brass plate companies, mailbox companies or international business companies are among the names given to them. 2008 SNA uses the term special purpose entities, and this is also the term used in this chapter.

3.5 Generally, SPEs are legal entities created to fulfil narrow, specific or temporary objectives. Enterprises typically use SPEs to protect them from financial risk. A company will transfer assets to the SPE for management, or use the SPE to finance a large project thereby achieving a narrow set of goals without putting the entire firm at risk. SPEs are also commonly used in complex financings to separate different layers of equity infusion. In addition, they are commonly used to own a single asset and associated permits and contract rights such as an apartment building or a power plant, so that the asset can be transferred more easily.
3.6 An SPE may be owned by one or more other entities. Sometimes it is important that
the SPE not be owned by the entity on whose behalf the SPE is being set up (the sponsor).
For example, in the context of a loan securitisation, if the SPE securitisation vehicle were
owned or controlled by the bank whose loans were to be secured, the SPE would be
consolidated with the rest of the bank's group for regulatory, accounting, and bankruptcy
purposes, which would defeat the point of the securitisation. Therefore some SPEs are set
up as 'orphan' companies with their shares settled on charitable trust and with professional
directors provided by an administration company to ensure that there is no connection with
the sponsor.

3.7 Reasons for creating SPEs can be:

(a) Securitisation: SPEs are commonly used to securitise loans (or other
receivables). For example, a bank may wish to issue a mortgage-backed security whose
payments come from a pool of loans. However, to ensure that the holders of the mortgage-
backed securities have the first priority right to receive payments on the loans, these loans
need to be legally separated from the other obligations of the bank. This is done by creating
an SPE, and then transferring the loans from the bank to the SPE.

(b) Risk sharing: Companies may use SPEs to legally isolate a high risk
project/asset from the parent company and to allow other investors to take a share of the
risk.

(c) Asset transfer: Many permits required to operate certain assets (such as
power plants) are either non-transferable or difficult to transfer. By having an SPE that
owns the asset and all the permits, the SPE can be sold as a self-contained package, rather
than attempting to sign over numerous permits.

(d) Financial engineering: SPEs are often used in complex financial engineering
schemes with the aim to avoid tax or manipulate financial statements

(e) Regulatory reasons: A special purpose entity can sometimes be set up within
an orphan structure to circumvent regulatory restrictions, such as regulations on nationality
of ownership of specific assets.

(f) Property investing: Some countries have different tax rates for capital gains
and gains from property sales. It can be a good thing for tax purposes when each property is
owned by a separate company. These companies can then be sold and bought instead of the
actual properties, effectively converting property sales gains into capital gains for tax
purposes.

3.8 Together with this widely accepted description of SPEs a clear definition is needed
for statistical purposes as there is still room for interpretation. The guidelines on the
treatment of SPEs in the paragraph 'Special cases' of 2008 SNA chapter 4 on institutional
units and sectors, are as follows:

“A number of institutional units may be described as special purpose entities (SPEs)
or special purpose vehicles. There is no common definition of an SPE but some of the
following characteristics may apply

Such units often have no employees and no non-financial assets. They may have
little physical presence beyond a “brass plate” confirming their place of registration. They
are often resident in a territory other than the territory of residence of related corporations. In
the absence of any physical dimension to an enterprise, its residence is determined
according to the economic territory under whose laws the enterprise is incorporated or
registered.
Entities of this type are commonly managed by employees of another corporation which may or may not be a related one. The unit pays fees for services rendered to it and in turn charges its parent or other related corporation a fee to cover these costs. This is the only production the unit is involved in though it will often incur liabilities on behalf of its owner and will usually receive investment income and holding gains on the assets it holds.” (para. 4.55 - 4.57)

3.9 Annex 7 of BD4 also provides guidelines on how to recognise SPEs. These criteria are:

(a) The enterprise is a legal entity,

(i) formally registered with a national authority; and

(ii) subject to fiscal and other legal obligations of the economy in which it is resident.

(b) The enterprise is ultimately controlled by a non-resident parent, direct or indirectly.

(c) The enterprise has no or few employees, little or no production in the host economy and little or no physical presence.

(d) Almost all assets and liabilities of the enterprise represent investments in or from other countries.

(e) The core business of the enterprise consists of group financing or holding activities, that is – viewed from the perspective of the compiler in a given country – the channelling of funds from non-residents to other non-residents. However, in its daily activities, managing and directing plays only a minor role.

III. Statistical treatment in international standards

3.10 The guidance on SPEs in previous international manuals was very limited. The new manuals pay more attention to them, but the guidelines do not go into detail. 2008 SNA, BD4 and BPM6 do not contradict each other, but all leave room for individual countries to choose their own treatment. This section covers some important issues regarding the treatment of SPEs, the SNA guidelines on the different kinds of SPEs, and the research and results from other working groups regarding SPEs.

A. Residence issues

3.11 In the case of SPEs the question of residency is not straightforward: can the SPE be considered as an institutional unit as defined in 2008 SNA, and if so, what criteria can be used to determine the residency of the relevant unit?

3.12 The residence criteria can be used as a reason to exclude SPEs from a country’s national accounts. Three excerpts of SNA stated:

“The concept of residence used here is not based on nationality or legal criteria [...]. An institutional unit is [...] said to be a resident unit when it has a centre of economic interest in the economic territory of the country in question.” (2008 SNA, para. 1.48)

“An institutional unit has a centre of predominant economic interest in an economic territory when there exists, within the economic territory, some location, dwelling, place of production, or other premises on which or from which the unit engages and intends to
continue engaging, either indefinitely or over a finite but long period of time, in economic activities and transactions on a significant scale.” (2008 SNA, para. 4.14)

“Corporations and quasi-corporations are said to have a centre of economic interest and to be resident units of a country (economic territory) when they are engaged in a significant amount of production of goods and services there, or own land or buildings located there. They must maintain at least one production establishment there which they plan to operate indefinitely or over a long period of time.” (1993 SNA, para.14.22)

3.13 One would think, especially after reading the last excerpt, that SPEs should not be regarded as institutional units. Many SPEs only exist as a postal box or brass plate at a trust office. However, when looking more closely at some of the excerpts, a case can be made for SPEs to be resident in the host country:

3.14 The criteria for a ‘production establishment’ are not clear in SNA:

“The establishment combines both the kind-of-activity dimension and the locality dimension. An establishment is an enterprise, or part of an enterprise, that is situated in a single location and in which only a single productive activity is carried out or in which the principal productive activity accounts for most of the value added.” (para. 5.14).

3.15 So no limits to the size of production at the location exist, nor is there an absolute requirement to have employees on the payroll.

3.16 It can be said that SPEs have production. SPEs produce services by intermediating financial flows, by issuing licenses and such. Their production is apparent in the export of services and the costs incurred in the hosting country.

3.17 Based on these arguments, SPEs meet the residence demands of the SNA. Also, from a practical point of view it is useful to regard SPEs as residents of the hosting country. The strict condition that a production establishment must be maintained (as mentioned in 1993 SNA) is no longer mandatory and now, paragraph 4.56 in 2008 SNA reads:

“In the absence of any physical dimension to an enterprise, its residence is determined according to the economic territory under whose laws the enterprise is incorporated or registered.”

B. Types of special purpose entities

3.18 Enterprises can create SPEs for different reasons, resulting in a set of different types of SPEs. The major types are listed below, including a brief description of their most important activities:

(a) The first category consists of financing and holding companies. Financing and holding companies channel funds in a world wide group on behalf of a non-resident parent company. Large cross-border financial transactions are typical for this type of SPE. The asset side of the balance sheet almost completely consists of financial assets and accounts receivable relating to foreign entities. Holding companies are also known to own claims on notional units abroad (e.g. buildings, natural resources). In the Netherlands the financing and holding companies form by far the largest group of SPEs.

(b) Royalty and licence companies make up the second category of SPEs. These businesses have been assigned ownership of intellectual property rights by their parent companies and collect income in the form of royalties as fees on licenses or act as a cashier of their parent company in the invoicing of royalty and license fees (in which case the SPE usually only owns sublicenses). The flows of the royalty and licence companies are recorded as exports of services. The revenues are passed on to the parent company.
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The third group of SPEs are factoring companies, conducting the invoice of sales of the world wide company on behalf of the (non-resident) parent company. Although the sales are not related to the domestic company, the payments are accounted as revenue for the SPE.

A fourth type is the lease company, where a distinction between operational lease companies and captive financial lease companies can be made. Operational lease companies are companies with foreign parent companies that lease out fixed assets to foreign customers through operational lease contracts. In the case of captive financial lease companies the SPE legally “owns” the assets and leases them back to the parent or other foreign affiliates of the group who are in fact the “economic” owners of the assets.

In the Netherlands, entities created to securitise large quantities of bank assets are known as special purpose vehicles (SPVs), and classed as SPEs. The choice to add these SPVs to the category SPEs was made because SPEs with a foreign originator form a relatively large homogenous group, and, although in most cases a Dutch legal entity is the immediate parent, the foreign originator usually still has a lot of influence in the SPV.

The distinction between different types of SPEs in 2008 SNA is somewhat more general. In addition to the three SNA paragraphs mentioned in section II (4.55-4.57), the 2008 SNA gives a demarcation of some specific SPE types (described in paragraphs 17 – 26 below):

Whether a unit has all or none of these characteristics, and whether it is described as an SPE or some similar designation or not, it is treated in the SNA in the same way as any other institutional unit by being allocated to a sector and industry according to its principal activity unless it falls into one of the three following categories:

(a) captive financial institutions,
(b) artificial subsidiaries of corporations,
(c) special purpose units of general government.

(a) Captive financial institutions

A holding company that simply owns the assets of subsidiaries is one example of a captive financial institution. Other units that are also treated as captive financial institutions are units with the characteristics of SPEs as described above including investment and pension funds and units used for holding and managing wealth for individuals or families, holding assets for securitisation, issuing debt securities on behalf of related companies (such a company may be called a conduit), securitisation vehicles and to carry out other financial functions.

The degree of independence from its parent may be demonstrated by exercising some substantive control over its assets and liabilities to the extent of carrying the risks and reaping the rewards associated with the assets and liabilities. Such units are classified in the financial corporations sector.

An entity of this type that cannot act independently of its parent and is simply a passive holder of assets and liabilities (sometimes described as being on auto-pilot) is not treated as a separate institutional unit unless it is resident in an economy different from that of its parent. If it is resident in the same economy as its parent, it is treated as an “artificial subsidiary” as described immediately below.

(b) Artificial subsidiaries of corporations

Within the SNA, the term corporation is used to denote both institutions legally recognised as corporations and other units treated in the SNA as corporations, specifically
quasi-corporations, branches and notional units. For the following six paragraphs, however, the term corporation is used in the sense of a corporation as a legal entity.

3.25 A subsidiary corporation, wholly owned by a parent corporation, may be created to provide services to the parent corporation, or other corporations in the same group, in order to avoid taxes, to minimise liabilities in the event of bankruptcy, or to secure other technical advantages under the tax or corporate legislation in force in a particular country. For example, the parent may create a subsidiary to which ownership of its land, buildings or equipment is transferred and whose sole function is to lease them back again to the parent corporation; the subsidiary may be the nominal employer of all the staff who are then contracted to other corporations in the group, the subsidiary may keep the accounts and records of the parent on a separate computer installation; the role of the subsidiary may be established to take advantage of favourable funding or regulatory treatments and so on. In some cases, corporations may create “dormant” subsidiaries that are not actually engaged in any production but which may be activated at the convenience of the parent corporation.

3.26 In general, these sorts of corporations do not satisfy the definition of an institutional unit in the SNA because they lack the ability to act independently from their parent corporation and may be subject to restrictions on their ability to hold or transact assets held on their balance sheets. Their level of output and the price they receive for it are determined by the parent that (possibly with other corporations in the same group) is their sole client. So in the SNA they are not treated as separate institutional units but as an integral part of the parent, and their accounts are consolidated with those of the parent. As noted above, the accounts for passive SPEs (those on auto-pilot) are also consolidated with their parent corporation unless they are resident in another economy than where the parent resides.

3.27 Quasi-corporations such as a partnership or trust may also be set up by a parent corporation for similar reasons to the subsidiary corporations just described. Within the SNA, these are also treated as an integral part of the parent and their accounts are consolidated with the parent.

3.28 A distinction must be made between artificial subsidiaries as just described and a unit undertaking only ancillary activities. As described in more detail in section D of chapter 5, ancillary activities are limited in scope to the type of services that almost all enterprises need, such as cleaning, running the staff payroll or providing the information technology infrastructure for the enterprise. Units undertaking only ancillary activities will in general not satisfy the conditions of being an institutional unit (for the same sort of reason why artificial subsidiaries do not) but they may sometimes be treated as a separate establishment of the enterprise if this is analytically useful.

(c) Special purpose units of general government

3.29 General government may also set up special units, with characteristics and functions similar to the captive financial institutions and artificial subsidiaries of corporations just described. Such units do not have the power to act independently and are restricted in the range of transactions they can engage in. They do not carry the risks and rewards associated with the assets and liabilities they hold. Such units, if they are resident, are treated as an integral part of general government and not as separate units. If they are non-resident they are treated as separate units. Any transactions carried out by them abroad are reflected in corresponding transactions with government. So a unit that borrows abroad is then regarded as lending the same amount to general government, and on the same terms as the original borrowing.
C. Production by special purpose entities

3.30 The 2008 SNA states that SPEs in most cases have only one form of production:

“Entities of this type are commonly managed by employees of another corporation which may or may not be a related one. The unit pays fees for services rendered to it and in turn changes its parent or other related corporation a fee to cover the costs. This is the only production the unit is involved in though it will often incur liabilities on behalf of its owner and will usually receive investment income and holding gains on the assets it holds.” (art. 4.57)

3.31 When looking at how SPEs are charged and charge their parent companies in practice, SPEs often pay fees (intermediate consumption) but do not charge any fee to the parent company or other affiliates of the group. Their revenues are interest and dividends or holding gains. In this case a fee equal to cost could be imputed.

3.32 In addition to this form of production, there is the production of royalties and license fees. As described earlier in this section, one SPE category is formed by the licensing and royalty companies. These hold or manage intellectual property rights (non-financial assets) and collect income in the form of royalty and license fees.

3.33 Then there is the production of operational lease companies. For operational leasing companies the production should be equal to the leasing fee (for captive financial leasing companies the production should again be valued at cost as it is assumed that these companies don't produce Financial Intermediation Services Indirectly Measured (FISIM)).

D. Other research on the subject

3.34 In paragraph 4.55 2008 SNA states “There is no common definition of an SPE”. Hopefully the definition and examples in this chapter go some way to filling this gap. Recommendations on further clarification in 2008 SNA were made in the Eurostat Task Force on the recording of certain activities of MNEs in national accounts. In 2009 this Task Force completed its final report. The recommendations it contains concerning SPEs are:

(a) Entities with little or no physical presence are to be classified as institutional units when they are not resident in the same country as the country of their parent. Consolidation within the parent company occurs only within domestic economy, when they do not comply with the general criteria for institutional units.

(b) The Task Force recommends that some elements of the treatment of SPEs contained in the 2008 SNA, chapters 4 and 26 are clarified for their application in the EU. This concerns in particular:

(i) The use of the criterion of registration for identifying institutional unit. Value Added Tax (VAT) registration is not a sufficient condition in the EU for identifying a resident institutional unit.

(ii) The treatment of truncated groups containing both SPEs and normal units.

(c) The Task Force recommends that the production of SPEs is to be allocated to sector and industry according to their principal activity. In determining the production activity of SPEs, the underlying economic nature rather than the legal appearance should be the reference for national accounts.
(d) For valuation of SPE output, the Task Force recommends that when the SPE has transactions only with its foreign parent or with other units of the same group a market valuation cannot be identified and output should be valued at cost.

(e) The Task Force recommends that the treatment of SPEs in member states conform to the classification table (Annex 3.5). The decision tree shown in Figure 1 may represent an operational tool for national compilers.

(f) The Task Force recommends fostering cooperation and exchange of information on SPEs among national producers of statistics in the EU in order to tackle risks of omissions, double counting and inconsistent recording of SPEs operations which may lead to asymmetries.

3.35 The Dutch approach to SPEs is described in more detail in Annex 3.1. As the Netherlands is not the only country that has developed its own treatment of SPEs, the practices of other countries are also included. This may be helpful for other countries.

IV. Measurement problems

3.36 The general guidelines in the new statistical manuals leave countries relatively free in their way of measurement. Therefore, it is difficult to point out measurement problems as a result of the new standards. Annexes point out the problems in compiling statistics on SPEs that countries face and how they deal with them.

3.37 This section shows some universal problems when dealing with SPEs, originating from the characteristics of the SPEs. Although their financial balances may be large, the physical presence of these companies is usually very small. One single office or even only a brass plate is all there is. The low number of employees makes it very easy for the company group of which the SPE is part of to decide to move the SPE abroad. As a result the volatility in the number of SPEs is high. The transactions going through these SPEs can vary substantially year by year. Also because of the low number of employees (sometimes none) getting data from these companies can be a challenge. The contact person may be based abroad and getting the right figures in the right surveys at the right time is not always easy.

A. SPEs and foreign direct investment

3.38 From a slightly different perspective, the analysis of foreign direct investment statistics can also be complicated by SPEs. The 4th OECD Benchmark Definition on Foreign Direct Investment (FDI), in accordance with BPM6, gives guidelines on how to deal with and report different FDI flows. In the case of SPEs, correct FDI reporting becomes more difficult, because of the pass-through character of the SPEs. It states that because of the residence of these enterprises in a given country, FDI from and to that country should be recorded in FDI statistics of that specific country. However it is better to segregate SPEs and non-SPEs in FDI presentations, because SPEs are often only used for channelling funds via the country. Otherwise the presentation of FDI will be distorted by the SPE figures.

3.39 SPEs form a major problem in creating a more “economically significant” picture of the geographical breakdown of FDI. Looking through SPEs until a non-SPE is reached involves a great deal of work: in theory a MNE can create dozens or even over a hundred SPEs in different countries and by channelling funds through all these SPEs before the funds actually reach their non-SPE counterpart, FDI statistics compilers have to look
through all these SPEs in all those countries, if a correct allocation of this FDI is to be reported. In practice most companies will not have funds channelled through so many SPEs and the creation of origin and destination matrices\textsuperscript{16} is a step towards a more correct allocation of FDI and a better view of the dealings of SPEs.

3.40 However, looking through all SPEs until a non-SPE entity is reached (ultimate destination) would actually deny the very existence of the SPEs, because they will not be reported in statistical accounts. In the Netherlands, the balance of payments and the rest of the world accounts are presented with and without SPEs. The accounts including the SPEs, uses the direct linkages between the Netherlands and the first non-resident counterpart company. Although it might be interesting and useful to know and register the ultimate destination of the transactions flowing through the SPEs, composing statistics on this seem more suitable for satellite accounts. Direct flows should be reported in the core statistics. Breaking down statistics into including and excluding SPEs is used to create comparable and useful data.

V. Proposals for operational treatment in the accounts

3.41 The difference in how SPEs are treated all over the world makes it hard to point out what the best treatment is. There is probably no absolute best way applicable for all countries at the moment. The different types of SPEs, registration obligations and data availability mean that countries should find their own best way to treat SPEs, and use the Annexes with country practices as guidelines.

3.42 The Eurostat Task Force on the recording of certain activities of MNEs in national accounts presented its own decision tree in its final report. Diagram 3.1 shows this decision tree, which contains less detail and is a great guideline to help countries that face SPE detection problems.

\textsuperscript{16} The OECD Benchmark Definition states it is desirable that compilers provide supplemental information on the specific linkages between the inward and outward positions of its SPEs. By creating Origin and Destination Matrices a country can show what the SPE positions with different countries are, thus creating more transparency with regard to the geographical breakdown of SPE financial flows.
Diagram 3.1

SPE decision tree by Eurostat Task Force on the recording of certain activities of MNEs in national accounts

Does the entity have a physical presence in the country (1)?

YES

The entity is a normal resident institutional unit

NO

The entity is treated according to Table 1

Is the entity incorporated in the country?

YES

Is the entity controlled (3) by another resident institutional unit?

YES

The entity is not a resident institutional unit

NO

The entity is an SPE resident institutional unit

NO

Is the entity a foreign controlled branch registered (2) in the country?

YES

The entity is not a resident institutional unit

NO

The entity is treated according to Table 1

(1) The main indicator of physical presence is a sufficient level of employment compared to balance sheet value and/or transaction values. If employment exists in the SPE, typical ratios can be derived by type of activity for the country. Additional indicators may be developed at national level, see for example the approach of the Netherlands CBS, described in “Recording of SPEs in the Dutch national accounts” – by Jorrit Zwijnenburg

(2) Mainly, registration at the supervisory authority for banks and insurance branches. VAT registration in the EU is not sufficient for defining an institutional unit.

(3) More than 50 per cent of equity capital
VI. **Recommended future work on SPEs**

3.43 This paper shows how SPEs can be treated in a nation’s national accounts. It describes different types of SPEs identified and shows how SPEs can be treated statistically. Because there were no clear guidelines in international manuals, countries had to devise criteria on the definition and treatment of SPEs on their own. Recent international manuals pay more attention to SPEs, providing guidelines on how to detect and define them. Different countries have slightly different definitions of SPEs because the impact of SPEs is not as large. Countries have different ways of registering SPEs and presenting them in balance of payments or national accounts. It is strongly recommended to compile statistics including and excluding SPEs, because otherwise SPEs can drastically inflate a nation’s national accounts and balance of payments.

3.44 Because of limitations in the available source information, bold, sometimes very bold assumptions have to be made in the compilation of the relevant national accounts data in most countries. Countries are encouraged to invest in the maximisation of the data availability on SPEs and to take notice of developments in the treatment of SPEs by other countries. The annexes include examples of this.

VII. **References**


Eurostat, Task Force on the recording of certain activities of multinationals in national accounts, final report, 2009

Groot, B.S., Special Purpose Entities in Dutch National Accounts, 2009


Zwijnenburg, J., Recording of Special Purpose Entities in the Dutch National Accounts, Statistics Netherlands, 2006
Annex 3.1

I. Treatment of special purpose entities in the Netherlands

3.1.1 Many special purpose entities (SPEs) have their residence in the Netherlands. At the end of 2008 there were more than 12,000 SPEs recorded in the Netherlands and they accounted for more than 1.6 trillion euros in assets and liabilities on their closing balance sheets in 2007. This is almost three times gross domestic product (GDP). Section III shows some key figures of SPEs in the Dutch national accounts (NA).

3.1.2 Statistics Netherlands started including SPEs in Dutch NA with the major revision of 2001. Introducing this specific group of companies in NA made it necessary to answer to several conceptual questions about the treatment of SPEs, because there were no clear guidelines or definitions in international manuals. A project group was set up to address these questions. It consisted of representatives of Statistics Netherlands and the Dutch Central Bank (De Nederlandsche Bank, DNB) that collects the data on SPEs. The assignment of the group was to formulate a decision tree to detect SPEs. This decision tree had to include all criteria concerning the definition of Dutch SPEs.

A. Dutch definition of SPEs

3.1.3 At the time of the introduction of SPEs in the Dutch NA (Dutch Benchmark Revision 2001) international guidelines provided hardly any details on how to deal with these types of institutions. The 2008 System of National Accounts (2008 SNA) does hold guidelines on the treatment of SPEs.

3.1.4 In the Netherlands, a decision tree was introduced on how to define SPEs (see Section II). In this tree distinction is made between the different SPE types, as defined in The Netherlands. As such, the Dutch definition of SPEs is the outcome of the criteria that are set up and shows many similarities to the recent international guidelines. Here, the different criteria are stated, to which a company has to comply in order to be recorded as an SPE. First of all, only resident entities, which are (in) directly controlled by foreign entities, can obtain the SPE status. Therefore the first two criteria are:

1. The institutional unit is a resident entity

3.1.5 The SPE project group applied a rather practical criterion on residence in which a resident SPE should be an institutional entity registered at a Dutch Chamber of Commerce and conduct fiscal activities in the Netherlands. The Chamber of Commerce records all corporations with economic activity in the Netherlands and these entities should be described in Dutch NA. By adding the fiscal aspect it is assured a company will only be measured in one country, assuming an entity will normally be liable to tax in only one country (or at least pay taxes for a certain transaction in just one country).

2. The institutional unit is (directly or indirectly) foreign-controlled for more than 50 percent

3.1.6 When an entity complies with the first two criteria, it is 'benchmarked' against the criteria of the five different SPEs. For each group a different criterion can be used:

- For the financing and holding companies: do more than 90 percent of total assets (excluding trade credits) and more than 90 percent of liabilities relate to non-resident entities?
For the royalty and license companies: do more than 90 percent of total returns consist of export of royalty and license fees?

For factoring companies: do more than 90 percent of returns and costs consist of factoring from and to non-residents?

For operational lease companies: is more than 90 percent of turnover reached cross-border and does more than 90 percent of liabilities relate to non-residents?

For the Special Purpose Vehicles (SPV) with foreign originator (that are controlled by a resident foundation) the foreign control criterion mentioned above (criterion 2) does not have to be met, because in most cases there is no direct or indirect foreign control. The criterion, if an SPV with foreign originator is identified, to qualify as SPE is almost the same as that of the financing and holding companies: do more than 90 percent of the assets and more than 90 percent of liabilities relate to non-resident entities?

3.1.7 If these criteria or questions can be answered positively, one could speak of an SPE. One last escape is introduced in the tree, to ensure no production unit is present within an SPE. If an entity's domestic turnover (of services produced in the Netherlands, no re-exports) exceeds 25 million or more, it is generally not classified as an SPE:

- Domestic turnover of the institutional unit does not exceed 25 million euro.

3.1.8 The decision tree can be used without any problems for the “uncomplicated” cases. However, a foreign company might set up more than one company in the Netherlands. It can build a whole cluster of companies, with a domestic mother being major shareholder in its domestic subsidiaries. This might lead to incorrect definition of SPEs.

3.1.9 To come to a correct definition of individual companies within clusters like this, DNB and CBS decided that, when a company cluster is found in the Netherlands, the definition of each individual subsidiary will start at the bottom of the cluster, with the entities that do not have domestic daughter companies themselves. After this, the holding companies directly above these entities are examined and so on until the ultimate mother in the Netherlands can be examined in the tree. There will not be any problems if all entities within the cluster can be defined the same. However, if some entities in the cluster have clear SPE characteristics and others do not, a problem can occur when defining the status of the mother in the Netherlands.

3.1.10 The decision tree has proved to work well, especially for the ‘simple’ cases. It was set up to cover most of the possible SPE companies. For some complicated cases, even when applying the above approach, the tree does not suffice and in those cases it is up to the project group to make a well thought decision on the status of company in question.

3.1.11 Basically, problems occur if a (ultimately) foreign controlled domestic entity has subsidiaries in the same country. For cases where no inland subsidiaries exist, the (simple) decision tree can be used without any difficulties. When looking at a company with multiple subsidiaries in the same country, all assets might appear to stay in the Netherlands. But what really happens is that funds are channelled abroad through its SPE daughter(s). To qualify such an entity as a regular production unit would be unfair and wrong. International guidelines suggest looking through these types of entities.

B. Compilation of special purpose entities in Dutch national accounts

3.1.12 In the previous section methods that are used in the Netherlands for detecting and registering SPEs were discussed. This section will touch upon another question posted on the research agenda. It will look at how relevant transactions by SPEs are compiled and
recorded in the Netherlands. In addition, the main strengths and weaknesses of the sources and methods are discussed.

3.1.13 The question on the research agenda relevant to this section reads: 'how should the relevant transactions be recorded: as service, capital formation, income or financial transaction?' Statistics Netherlands tries to record SPE activities as detailed as possible. With the data that is available it compiles a complete set of NA data, from production account to other non-financial transactions, including interest, dividends, reinvested earnings and capital formation, concluding with the (large) financial transactions in the financial account. Although the available data is currently quite limited (there are, for example, no data on transactions with resident entities) Statistics Netherlands is capable, using several assumptions, to compile the complete data set.

3.1.14 The DNB is the institution responsible for the collection of survey data on SPEs. DNB is also responsible for the compilation of the Balance of Payments (BoP), including and excluding SPEs. New Dutch SPEs are obliged to report themselves to DNB. The largest SPEs have to report monthly on their financial and non-financial transactions with non-residents. Once a year they also have to report balance sheet figures. Because only the larger SPEs are questioned on such a regular basis, the reporting SPEs are grossed up to make up for the non-reporting (smaller) SPEs. Biannually benchmarking takes place to make sure no SPEs are missed and the grossing up is of the right size.

3.1.15 In compiling a complete set of NA data, several assumptions have to be made to come to a complete data set. This section will touch on some of these assumptions, in which vulnerabilities may lie. In Section III, a more detailed account is given on the composition of SPE figures in Dutch NA.

3.1.16 One of the assumptions made relates to the domestic output of royalties and license fees. The output value of royalty and license fees is determined as the domestic revenues from royalty and licenses and the exports of these services. These are royalty and license fees 'produced' by the Dutch SPE itself, so not "re-exported fees". To estimate the latter, it is assumed that all imported fees are directly exported to a mother company. Output by the SPE then consists of domestic sales plus total exports adjusted for "re-exports". Any fluctuation in exports will normally also be reflected in fluctuations in imports. The assumption is made that incidental fluctuations in the gap between imports and exports are the result of acquisitions (or disposals) of royalties or (sub) licenses. When the gap between imports and export shows a sharp rise during one period, the assumption is made that this is caused by an acquisition of non-financial assets. These amounts will be recorded as (negative) gross capital formation. Whether this method is (still) appropriate is currently under investigation. Mostly it is a technical intervention to limit fluctuation in royalty and license production and thus value added by SPEs.

3.1.17 Another illustration of vulnerability is formed by estimations of domestic transactions. With regard to the costs of SPEs, BoP information on the imports of SPEs is available. However, there is no data on the domestic costs (among which compensation of employees) made by SPEs. The same problem occurs in the primary income account and to a lesser extent in the financial account. No actual data on domestic transactions is available. Although presumably much smaller than transactions with foreign counterpart sectors, the lack of these data makes the estimation and interpretation of the economic behavior of the SPEs in the resident country much more difficult.

3.1.18 BoP information on financial accounts is available, although not as detailed as for non-SPE corporations. Here also, virtually no data on domestic transactions exist. Only data on balance sheets, distinguished between resident and non-resident counterpart sectors, is available (but not in time for the first provisional annual estimate, six months after the end of the reporting year). The latter data give an indication on how domestic financial
transactions have developed. For the rest CBS estimates domestic transactions, mostly by extrapolating domestic figures using the development in foreign transactions.

3.1.19 To get a better idea of how big transactions with domestic counterparts are, the SPE Project group in the Netherlands has started on a route towards an enlarged questionnaire for SPEs. In this questionnaire SPEs are asked to fill out a complete profit and loss account including domestic as well as foreign transactions. It is expected to be introduced in the questionnaire as of December 2009.

3.1.20 Another problem the project group faced was related to the delineation of the SPE population. SPEs only have to report to DNB. Non-financial corporations have to report to CBS and therefore it is important the relevant populations of both institutions are aligned with each other. Last year CBS and DNB came together to compare their registers and when discrepancies were found, companies were studied more closely to agree on the status of the entity. The SPE decision tree, dealt with in the previous paragraph, proved to be very useful. Now, the populations of DNB and CBS are made consistent. This way, no companies are missed in questionnaires or counted double in different sectors.

3.1.21 Because of the strong presence of SPEs in the Netherlands, the DNB and CBS agreed to report statistics both including and excluding SPEs (BoP, Rest of World (RoW) - account). It is strongly recommended to compose statistics, both including and excluding SPEs, because otherwise SPEs can inflate a nation's NA and BoP drastically. Because of limitations in the available source information, strong, and sometimes very strong, assumptions have to be made in the compilation of the relevant NA data. Domestic transactions are not yet covered in the questionnaires filled out by Dutch SPEs and assumptions on domestic flows have to be made. Progress is made however, to enhance the SPE questionnaire in future by asking more details about domestic transactions.
II. Decision tree on special purpose entities

Is the institutional unit a resident entity?

no

The entity is a non-resident entity

yes

Is the institutional unit (directly or indirectly) foreign-controlled for more than 50 percent?

no

Is the entity an SPV (asset Securisation Company) with foreign originator?

no

The entity is a regular entity

yes

Does more than 90 percent of the assets and more than 90 percent of the liabilities relate to non-resident entities?

yes

The entity is an SPV with SPE-characteristics

no

The entity is a regular entity

Does the entity meet one of the following criteria:

Does more than 90 percent of financial assets and liabilities (excluding trade credits) relate to non-resident entities? or Does more than 90 percent of total returns consist of the export of royalty and license fees? or Does more than 90 percent of turnover and costs consist of trade credits relating to non-residents? or Is more than 90 percent of turnover reached abroad and does more than 90 percent of liabilities relate to non-residents?

no

The entity is a regular entity

yes

The entity is an SPE in the form of:

a financing or holding company

a royalty and license company

a factoring company

an operational lease company

Is the domestic turnover larger than 25 mln. euro?

yes

The SPE contains a regular production unit. Individual decision by project group needed

no

The entity is an SPE
### III. Transactions of special purpose entities in the Netherlands

<table>
<thead>
<tr>
<th>million euro</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006*</th>
<th>2007*</th>
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<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td><strong>R</strong></td>
<td>Output (basic prices)</td>
<td>4804</td>
<td>4659</td>
<td>4451</td>
<td>5320</td>
<td>6138</td>
<td>5902</td>
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<tr>
<td><strong>U</strong></td>
<td>Intermediate consumption (excl. deductible VAT)</td>
<td>6514</td>
<td>5856</td>
<td>5758</td>
<td>6074</td>
<td>6974</td>
<td>6766</td>
</tr>
<tr>
<td><strong>R</strong></td>
<td>Value added (gross)</td>
<td>-1710</td>
<td>-1197</td>
<td>-1307</td>
<td>-754</td>
<td>-836</td>
<td>-864</td>
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</tbody>
</table>

#### 2.1 INCOME ACCOUNT (GENERATION OF INCOME)

| R | Value added (gross) | -1710 | -1197 | -1307 | -754 | -836 | -864 | -199 |
| **U** | Compensation of employees | 311 | 344 | 315 | 343 | 372 | 363 | 390 |
| **Wages and salaries** | 252 | 269 | 244 | 262 | 287 | 284 | 307 |
| **Employers’ social contributions** | 59 | 75 | 71 | 81 | 85 | 79 | 83 |
| **Consumption of fixed capital** | 987 | 933 | 939 | 930 | 888 | 885 | 852 |
| **Operating surplus (net)** | -3008 | -2474 | -2561 | -2027 | -2096 | -2112 | -1441 |

#### 2.2 INCOME ACCOUNT (PRIMARY DISTRIBUTION)

| R | Operating surplus (net) | -3008 | -2474 | -2561 | -2027 | -2096 | -2112 | -1441 |
| **U** | Property income | 81362 | 52840 | 45256 | 60768 | 65717 | 69556 | 62610 |
| **Interest** | 19645 | 20634 | 18171 | 19520 | 17133 | 19203 | 24548 |
| **Dividends** | 33044 | 22617 | 28179 | 32823 | 41025 | 57900 | 71711 |
| **Reinvested earnings on direct foreign investment** | 28673 | 9589 | -1094 | 8425 | 7559 | -7547 | -33649 |

#### 2.3 INCOME ACCOUNT (SECONDARY DISTRIBUTION)

| R | Property income | 78054 | 50209 | 42663 | 58532 | 63192 | 66579 | 59675 |
| **Social contributions** | 18335 | 20557 | 18887 | 19671 | 17264 | 21568 | 25858 |
| **Dividends** | 17698 | 9682 | 20275 | 21043 | 54041 | 26252 | 46439 |
| **Reinvested earnings on direct foreign investment** | 42021 | 19970 | 3501 | 17818 | 8113 | 18759 | -12622 |
| **Primary income (net)** | 300 | 157 | 32 | 209 | 429 | 865 | 1494 |

#### 2.4 INCOME ACCOUNT (USE OF INCOME)

| R | Disposable income (net) | -987 | -933 | -939 | -930 | -888 | -885 | -852 |
| **U** | Net saving and capital transfers | -987 | -933 | -939 | -930 | -888 | -885 | -852 |
Transactions of special purpose entities in the Netherlands (continued)

<table>
<thead>
<tr>
<th>million euro</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006*</th>
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<td>-930</td>
<td>-888</td>
<td>-885</td>
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<td>U Net saving and capital transfers</td>
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<td>-939</td>
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<td>-888</td>
<td>-885</td>
<td>-852</td>
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<td>R Net saving and capital transfers</td>
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<td>-933</td>
<td>-939</td>
<td>-930</td>
<td>-888</td>
<td>-885</td>
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<td>930</td>
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<td>885</td>
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<td>624</td>
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<td>-726</td>
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<td>-785</td>
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Transactions of special purpose entities in the Netherlands (continued)

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<thead>
<tr>
<th>million euro</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006*</th>
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<td>40050</td>
<td>-13396</td>
<td>1206</td>
<td>-38059</td>
</tr>
</tbody>
</table>

**4.4 CLOSING BALANCE SHEET**

<table>
<thead>
<tr>
<th>million euro</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006*</th>
<th>2007*</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A</strong></td>
<td>Other deposits</td>
<td>21735</td>
<td>21198</td>
<td>25535</td>
<td>27448</td>
<td>32622</td>
<td>32509</td>
</tr>
<tr>
<td></td>
<td>Long term bonds</td>
<td>27539</td>
<td>25320</td>
<td>24322</td>
<td>25136</td>
<td>28053</td>
<td>21230</td>
</tr>
<tr>
<td></td>
<td>Short term loans</td>
<td>193916</td>
<td>189178</td>
<td>180379</td>
<td>148445</td>
<td>146048</td>
<td>177869</td>
</tr>
<tr>
<td></td>
<td>Long term loans</td>
<td>243864</td>
<td>237087</td>
<td>259772</td>
<td>272659</td>
<td>285083</td>
<td>290279</td>
</tr>
<tr>
<td></td>
<td>Shares and other equities</td>
<td>529899</td>
<td>522960</td>
<td>570620</td>
<td>600348</td>
<td>689956</td>
<td>777348</td>
</tr>
<tr>
<td></td>
<td>Other accounts receivable and payable</td>
<td>26405</td>
<td>28165</td>
<td>23843</td>
<td>22725</td>
<td>21226</td>
<td>23276</td>
</tr>
<tr>
<td>Total assets</td>
<td>1043358</td>
<td>1023908</td>
<td>1084471</td>
<td>1096761</td>
<td>1202988</td>
<td>1322511</td>
<td>1588786</td>
</tr>
<tr>
<td><strong>L</strong></td>
<td>Long term bonds</td>
<td>300614</td>
<td>311601</td>
<td>310567</td>
<td>302776</td>
<td>297943</td>
<td>320170</td>
</tr>
<tr>
<td></td>
<td>Short term loans</td>
<td>101209</td>
<td>99343</td>
<td>107433</td>
<td>96089</td>
<td>116491</td>
<td>127784</td>
</tr>
<tr>
<td></td>
<td>Long term loans</td>
<td>115400</td>
<td>110888</td>
<td>132075</td>
<td>151334</td>
<td>186729</td>
<td>162984</td>
</tr>
<tr>
<td></td>
<td>Shares and other equities</td>
<td>526157</td>
<td>522960</td>
<td>570620</td>
<td>600348</td>
<td>689956</td>
<td>777348</td>
</tr>
<tr>
<td></td>
<td>Other accounts receivable and payable</td>
<td>18398</td>
<td>24578</td>
<td>19188</td>
<td>16924</td>
<td>15918</td>
<td>20625</td>
</tr>
<tr>
<td>Total liabilities</td>
<td>1061778</td>
<td>1045636</td>
<td>1092778</td>
<td>1065563</td>
<td>1185810</td>
<td>1305279</td>
<td>1608887</td>
</tr>
<tr>
<td>Total net worth</td>
<td>-18420</td>
<td>-21728</td>
<td>-8307</td>
<td>31198</td>
<td>17178</td>
<td>17232</td>
<td>-20101</td>
</tr>
</tbody>
</table>
IV. Estimation of SPEs transactions in national accounts

A. SPEs in the production account

3.1.22 As explained in section 4, there is not much information on domestic transactions of SPEs available, only data from BoP on trade in goods and services of SPEs for the production account. There is no information on domestic production or intermediate consumption of SPEs. The estimation of these variables is further complicated by the fact that most SPEs provide financial services to the company group for which no clear commission is paid. This implies that the production value for this type of SPEs should be compiled indirectly.

3.1.23 SPEs are engaged in two types of production. The SPEs that hold non-financial assets provide services on the basis of their royalties and licences. And the SPEs that act as a financial vehicle or holding company on behalf of their foreign parent company to provide financial services.

3.1.24 The production value of royalty and licence fees is determined as the domestic revenues from royalty and licences and the exports of these services for the account of the SPEs. Not all exports are regarded as production of the SPE, because part of the export originates from imports. For this type of flows, the SPE is merely a link in the transit of royalty and licence fees on behalf of their parent company. The parent company provides services on the basis of royalties and licences to the SPE, whereas the SPE (on the basis of sublicenses) passes these services on to the end customers/users. This part of the imports and exports is regarded as re-exports in the Dutch NA. Table 3.1.1 presents the figures for re-exports of SPEs for 2001-2005.

Table 3.1.1
Re-export of royalties and licence fees, in million euro

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Re-export</td>
<td>4,901</td>
<td>4,624</td>
<td>4,418</td>
<td>4,485</td>
<td>3,615</td>
</tr>
</tbody>
</table>

3.1.25 These re-exports are not part of the production or intermediate consumption of SPEs. In addition, part of the imports and exports consist of domestic production and domestic sales. The domestic sales are compiled on the basis of the gap between the exports and imports of services. This gap can be seen as an indicator for the services that are provided by the SPE itself rather than originating from importing services. Therefore, it can be used to estimate the domestic production of the SPEs.

3.1.26 Under the assumption that domestic sales will develop in line with the imports and exports, the gap between imports and exports cannot show too much fluctuation. For the part of the transit trade, the gap between imports and exports will be quite stable over time. This is the part of services provided by the SPE that is not transferred to the parent company in the form of imports of royalty and licence fees, but is paid out to the parent company in the form of dividends. Any fluctuation in exports will normally also be reflected in import fluctuations. The assumption is that incidental fluctuations in the gap between imports and exports are the result of acquisitions (or disposals) of royalties or (sub) licences. When the gap between imports and exports showed a sharp rise in one period, it was assumed that this was caused by an acquisition of non-financial assets. Instead of recording these amounts as imports or exports of services, these amounts will be recorded as gross capital formation.

3.1.27 The calculation of the production value of the financial services provided by the SPE is somewhat more difficult. According to the European System of Accounts (95ESA, article
3.63) the production value of financial intermediaries should be measured as total property income received minus total interest paid, excluding the value of any income received from the investment of their own funds. However, the introduction of a new compilation method for Financial Intermediation Services Indirectly Measured (FISIM) changed the measurement of production of financial services. This is not applicable to SPEs though. The Dutch NA excluded SPEs from FISIM because the international forums concluded that FISIM should not be applied to investment funds and financial holdings. They only provide services to the worldwide company, so they are comparable to holding companies. They are not market producers of these services and therefore FISIM is not applicable to SPEs. And because they are not market producers, it is difficult to make an accurate estimate of the market value of their production. As is the case with other non-market producers, such as investment funds and holdings, it was decided to use the sum of cost approach.

3.1.28 A third production category is rent. DNB data for 1985-1992 showed that SPEs gain revenues from hiring services. For the years following 1992 a growth rate per year was established for estimating the output of the hiring services.

3.1.29 Table 3.1.2 shows the calculation of output of SPEs.

Table 3.1.2

<table>
<thead>
<tr>
<th>Output of SPEs (million euros)</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic production of royalties and licence fees</td>
<td>534</td>
<td>503</td>
<td>555</td>
<td>594</td>
<td>615</td>
</tr>
<tr>
<td>Income from hiring services</td>
<td>80</td>
<td>92</td>
<td>96</td>
<td>101</td>
<td>106</td>
</tr>
<tr>
<td>Export of royalties and licence fees</td>
<td>645</td>
<td>652</td>
<td>778</td>
<td>871</td>
<td>1,069</td>
</tr>
<tr>
<td>Export of financial services</td>
<td>3,545</td>
<td>3,412</td>
<td>3,022</td>
<td>3,559</td>
<td>4,547</td>
</tr>
<tr>
<td>Total production</td>
<td>4,804</td>
<td>4,659</td>
<td>4,451</td>
<td>5,125</td>
<td>6,337</td>
</tr>
</tbody>
</table>

3.1.30 Information about the costs of SPEs is available from BoP on imports. In addition, domestic costs have to be estimated. Information on domestic costs is available from source data of DNB for the period 1989-1992. On the basis of this information it was calculated that domestic costs equal 46 per cent of the average amount of imports and exports of ‘other services’ according to BoP. This percentage was confirmed by recent DNB data on some types of costs (such as office and management costs) and these were used in the calculation of domestic costs for all years.

3.1.31 Table 3.1.3 shows the calculation of intermediate consumption of SPEs.

Table 3.1.3

<table>
<thead>
<tr>
<th>Intermediate consumption of special purpose entities (million euros)</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic intermediate consumption</td>
<td>446</td>
<td>414</td>
<td>442</td>
<td>664</td>
<td>1,164</td>
</tr>
<tr>
<td>Imports of financial services</td>
<td>5,236</td>
<td>4,650</td>
<td>4,093</td>
<td>4,374</td>
<td>5,674</td>
</tr>
<tr>
<td>Imports of other services</td>
<td>832</td>
<td>792</td>
<td>1,223</td>
<td>1,031</td>
<td>703</td>
</tr>
<tr>
<td>Total intermediate consumption</td>
<td>6,514</td>
<td>5,856</td>
<td>5,758</td>
<td>6,069</td>
<td>7,541</td>
</tr>
</tbody>
</table>

B. SPEs in the primary income account

3.1.32 Most data for the primary income account is derived from BoP. Because SPEs have large cross-border assets and because they are foreign controlled, there are large cross-border property income flows in the primary income account. Property income flows related to foreign direct investment in particular are substantial. These are interest income, dividends and reinvested earnings. Because data on domestic flows are lacking, domestic property income flows have to be estimated on the basis of domestic stock information.
3.1.33 In addition to property income flows, compensation of employees also has to be taken into account on the primary income account of SPEs. Because SPEs employ some staff (although usually very few the wages and social contributions paid by SPEs must be estimated. Under the assumption that 9,000 SPEs have on average 0.75 employees (who earned 50,000 euro on average in 2002) the total compensation of employees in 2002 was an estimated 338 million euro. An annual growth rate of 7 percent is used in calculating the time series, based on the average growth rate of compensation of employees for the sectors S.11, S.12 and S.123/124 in the Dutch NA in the same period.

3.1.34 The item of reinvested earnings on direct foreign investment was corrected in the estimation method for primary incomes of SPEs. Under the assumption that all SPEs are fully owned by nonresident parent companies, all earnings or losses from the SPE by definition have to be attributed to the RoW account. Part of the earnings or losses will be distributed to the parent company in the form of dividends, and the remaining part will be attributed to the parent company in the form of reinvested earnings. This implies that the reinvested earnings on the uses side are used as a residual.

3.1.35 The reinvested earnings on foreign direct investment on the uses side of the SPEs is calculated as follows. First, the profit/loss after taxes of the SPE has to be calculated. This is done by adding up all value added (+), compensation of employees (-), property income received (+), interest income paid (-) and taxes on income (-). Under the assumption that all profits/losses after taxes of the SPE are attributed to the foreign parent company (apart from a very small part of domestic dividend payments), this total profit/loss of the SPE should be equal to the sum of dividends declared (domestic and abroad) and reinvested earnings abroad. As the figure from BoP on dividends declared is assumed to be more robust than reinvested earnings, and as the estimate for domestic dividend payments is so small, the reinvested earnings paid are determined as a residual. Diagram 3.1.1 shows the calculation of reinvested earnings on the uses side of the primary income account of the SPE.

Diagram 3.1.1
Calculation of reinvested earnings

\[
\text{Reinvested earnings on direct foreign investment (use)} = \\
\text{Value-added} - \text{Compensation of employees} + \text{Balance of interest received and interest paid} + \text{Distributed income received} + \text{Reinvested earnings received} - \text{Taxes on income} - \text{Dividends declared (domestic and abroad)}
\]

3.1.36 Table 3.1.4 presents the results for the transactions on the primary income account derived from the information from BoP and the estimations made for domestic transactions.
Table 3.1.4
Primary income account for SPEs (million euro)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Resources</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interest</td>
<td>19,645</td>
<td>20,634</td>
<td>18,171</td>
<td>19,685</td>
<td>18,621</td>
</tr>
<tr>
<td>Distributed income of corporations</td>
<td>33,044</td>
<td>22,617</td>
<td>28,179</td>
<td>32,877</td>
<td>39,885</td>
</tr>
<tr>
<td>Reinvested earnings on direct foreign investment</td>
<td>28,673</td>
<td>9,589</td>
<td>-1,094</td>
<td>7,949</td>
<td>-1,726</td>
</tr>
<tr>
<td><strong>Uses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Compensation of employees</td>
<td>311</td>
<td>344</td>
<td>315</td>
<td>338</td>
<td>338</td>
</tr>
<tr>
<td>Interest</td>
<td>18,335</td>
<td>20,557</td>
<td>18,887</td>
<td>19,720</td>
<td>19,471</td>
</tr>
<tr>
<td>Distributed income of corporations</td>
<td>17,698</td>
<td>9,682</td>
<td>20,275</td>
<td>19,841</td>
<td>53,559</td>
</tr>
<tr>
<td>Reinvested earnings on direct foreign investment</td>
<td>42,021</td>
<td>19,970</td>
<td>3,501</td>
<td>18,526</td>
<td>-19,069</td>
</tr>
</tbody>
</table>

C. Other non-financial transactions of special purpose entities

3.1.37 In addition to the transactions already mentioned, SPEs engage in two other types of non-financial transactions: taxes on income and gross capital formation.

3.1.38 First of all SPEs, like all other enterprises, pay taxes on the basis of their income. There are no recent data from SPEs on the payments of taxes. The tax payments for recent years were estimated on the basis of information up to 1999.

3.1.39 Acquisitions less disposals of intangible fixed assets are the result of incidental gaps between imports and exports of royalties and licenses, as was explained in the section on calculating transactions on the production account of SPEs.

3.1.40 Table 3.1.5 shows the estimates of taxes on income and on gross capital formation.

Table 3.1.5
Estimations of other non-financial transactions of SPEs (million euro)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Uses</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Taxes on income</td>
<td>1,287</td>
<td>1,090</td>
<td>971</td>
<td>1,142</td>
<td>1,277</td>
</tr>
<tr>
<td>Gross capital formation</td>
<td>0</td>
<td>700</td>
<td>785</td>
<td>520</td>
<td>1,123</td>
</tr>
</tbody>
</table>

D. Net lending/net borrowing of SPEs

3.1.41 As all profits/losses of the SPE are attributed to the foreign parent company, the net lending/net borrowing of the SPE will, apart from its gross capital formation, equal zero. Under the assumption that all gross capital formation is financed by the foreign parent company via financial transactions, and is not covered by current receipts and expenditures, net lending/net borrowing equals gross capital formation. In table 3.1.6 the most important balancing items are presented for SPEs.

Table 3.1.6
Balancing items for special purpose entities (million euros)

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value added (gross)</td>
<td>-1,710</td>
<td>-1,197</td>
<td>-1,307</td>
<td>-944</td>
<td>-1,204</td>
</tr>
<tr>
<td>Balance of primary incomes</td>
<td>2,997</td>
<td>2,287</td>
<td>2,278</td>
<td>2,086</td>
<td>2,481</td>
</tr>
<tr>
<td>Balance of other non-financial transactions</td>
<td>-1,287</td>
<td>-1,090</td>
<td>-971</td>
<td>-1,142</td>
<td>-1,277</td>
</tr>
<tr>
<td>Net lending/net borrowing</td>
<td>0</td>
<td>-700</td>
<td>-785</td>
<td>-520</td>
<td>-1,123</td>
</tr>
</tbody>
</table>
E. Financial accounts and balance sheets

3.1.42 The main data source for the financial accounts is the BoP, which contains much data on cross-border transactions of SPEs. However, as with the non-financial transactions, the information is not as extensive as on regular corporations. This implies that not all data from BoP can be directly linked to corresponding 95ESA transactions. For some items it was not quite clear what they consisted of, while more information was needed for others to make a clear breakdown into corresponding 95ESA items. For instance both short-term and long-term loans are recorded under the item inter-company loans. For NA requirements this item has to be broken down into the two categories mentioned. The same goes for securities other than shares.

3.1.43 Table 3.1.7 shows the link between the source data from BoP and the corresponding 95ESA items.

Table 3.1.7
Linkage scheme between BoP data on SPEs and 95ESA categories

<table>
<thead>
<tr>
<th>Source description</th>
<th>ESA95-category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deposits and bank balances</td>
<td>AF.2 Currency and deposits</td>
</tr>
<tr>
<td>Bank loans (liability)</td>
<td>AF.2 Currency and deposits</td>
</tr>
<tr>
<td>Bonds (notes and commercial paper)</td>
<td>AF.332 Long-term securities other than shares, excluding financial derivatives</td>
</tr>
<tr>
<td>Inter-company loans</td>
<td>AF.41 and AF.42 Short-term and long-term loans</td>
</tr>
<tr>
<td>Inter-company short term deposits</td>
<td>AF.41 Short-term loans</td>
</tr>
<tr>
<td>Other loans</td>
<td>AF.42 Long-term loans</td>
</tr>
<tr>
<td>Participations</td>
<td>AF.51 Shares and other equity, excluding mutual funds shares</td>
</tr>
<tr>
<td>Other</td>
<td>AF.7 Other accounts receivable/payable</td>
</tr>
<tr>
<td>Accounts payable/receivable - Banks</td>
<td>AF.2 Currency and deposits</td>
</tr>
<tr>
<td>Real estate</td>
<td>AF.51 Shares and other equity, excluding mutual funds shares</td>
</tr>
<tr>
<td>Reinvested earnings</td>
<td>AF.51 Shares and other equity, excluding mutual funds shares</td>
</tr>
</tbody>
</table>

3.1.44 For the financial accounts of SPEs the data from BoP and the International Investment Position (IIP) are converted to ESA categories in accordance with table 3.1.7. Then, the information on domestic positions is added and all items are linked with a counterpart sector. Subsequently, the domestic participation and loans are partly consolidated, as some SPEs participate in other domestic SPEs. Because these positions are reported by one as a liability and by the other as an asset, they have to be consolidated in compiling the sector results for the SPEs. Approximately 95 percent of the total domestic positions of SPEs are related to other domestic SPEs and are therefore corrected. Because it is known that a large part of the domestic loans are also inter-concern positions, these also have to be consolidated in the system of NA. Taking into account the reported domestic positions of SPEs on the asset and liability side, it was determined that approximately 75 percent of the reported loans are inter-concern and should be consolidated.

3.1.45 Lastly, as only stock data are available on domestic positions of SPEs, the change in domestic positions has to be broken down into financial transactions and other changes. First, the other changes for the domestic items are estimated. This is done largely on the basis of the other changes with respect to cross-border positions. When these have been corrected for exchange rate changes, the other changes in domestic positions result. The transactions are then derived as a residual.
Annex 3.2

Special purpose entities in Ireland

A. Country practices on SPEs in Ireland

3.2.1 In Ireland, Central Statistical Office (CSO) has the view that SPEs should be incorporated into the standard statistical collection and compilation systems to the extent that this is possible. To achieve this in Ireland the legal basis for the collection of data which is the Statutory Instrument for Balance of Payments and Financial Accounts Order under the Statistics Act (1993) has been modified. The effect of the modification is that persons or enterprises operating on behalf of other enterprises or persons are obliged to complete statistical surveys i.e. also on behalf of non-physical enterprises (SPEs). In these circumstances the survey is normally completed by service providers to the SPE, such as accountants or legal secretaries.

3.2.2 A financial services centre has existed in Dublin since the mid 1980s but developed considerable in scale during the late 1990s.

Table 3.2.1

<table>
<thead>
<tr>
<th>Activity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Insurance</td>
<td>Life and general insurance both agency and captive</td>
</tr>
<tr>
<td>Treasury</td>
<td>Agency and captive and stand-alone activities</td>
</tr>
<tr>
<td>SPV</td>
<td>Securitisation vehicles</td>
</tr>
<tr>
<td>Asset financing</td>
<td>Including leasing activities</td>
</tr>
</tbody>
</table>

3.2.3 There are relatively few holding companies or companies created to hold patents or royalties (see http://www.cso.ie/releasespublications/pr_bop.htm for details of royalty receipts in the BoP statistics for Ireland). Additionally, there are also thousands of collective investment schemes (mutual funds) which CSO does not consider to be SPEs.

3.2.4 The data for SPE activities is collected as part of the general BoP data collection survey system. These surveys have been customised following detailed consultation with respondents to ensure a greater understanding by respondents of the statistical requirements and to facilitate or accommodate the reporting for a number of different types of activities. For example the current account data section on the survey form BoP42/43 for insurance companies is quite different to the BoP44 for treasury companies, reflecting the very different statutory profit and loss account formats for these activities.

3.2.5 In general SPEs are surveyed in the same way as any other enterprise. However, for smaller SPEs the frequency of reporting is annual rather than quarterly. This is particularly the case for SPVs because of the nature of securitisation i.e. a transfer of assets from an MNE balance sheet to an “arms length” entity unconnected with the originating enterprise. Practically all SPV reporting is annual and in some cases aggregated over a number of SPVs. Additionally, the current legislation being finalised by ECB relating to Financial Vehicle Corporations (FVCs) which is another term for SPVs requires the Central Bank of Ireland to collect data relating to these activities (at least to the extent that they relate to MFI activities), this data will be shared with CSO for BoP statistical purposes.
B. Questions

1. Do you have suggestions for improvement of the methodology on the treatment of SPEs?

3.2.6 When we try to separate SPEs from similar type companies that have a physical presence, it seems to be difficult to arrive at a unique solution that could be followed in all countries. At present the Technical Expert Group (TEG) on the Directional Principle which was set up by the Working Group on External Statistics at ECB is also working on arriving at a definition of SPEs and this is proving quite difficult to resolve for these BoP statisticians.

2. Can the described Dutch decision tree on SPEs also be used in other countries for the detection of SPEs?

3.2.7 The proposed approach is well thought but it does resemble many similar classification schemes I have seen. In my experience with European discussions on SPEs in particular at ECB Working Group on External Statistics, every time agreement was almost reached on a classification some country would raise an example which would not fit into the proposed scheme. I don’t think that the matter was ever resolved satisfactorily.

3. How do you deal with the problems of limited data availability on SPEs?

3.2.8 We have adapted our legal framework to allow us access to third parties who do have the data relating too many of these SPEs. As regards the actual reporting, the frequency has in some cases been reduced from quarterly to annual depending on the scale of the SPE. For SPVs we have a particular difficulty which was explained above and this situation will change once the reporting for these entities is taken over by the Central Bank and Financial Services Authority of Ireland as part of money and banking Statistics.

4. Next to the described five types of SPEs, do you have indications for other types of SPEs in their countries?

3.2.9 The way SPEs are classified in Ireland has been set out in table 3.2.2. Essentially, we add an extra digit to the 4 digit NACE classifications. This approach doesn't just apply to SPEs as can be seen in the table 3.2.2. The main types of SPEs have been given above (table 3.2.1).
Table 3.2.2
Classical of SPEs in Ireland

<table>
<thead>
<tr>
<th>Classification of SPEs in Ireland</th>
<th>J65 Financial intermediation, except insurance and pension funding</th>
<th>J65 Financial intermediation, except insurance and pension funding</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>J651 Monetary intermediation</td>
<td>J651 Monetary intermediation</td>
</tr>
<tr>
<td></td>
<td>J6511 Central banking</td>
<td>J6511 Central banking</td>
</tr>
<tr>
<td></td>
<td>J6512 Other monetary intermediation</td>
<td>J6512 Other monetary intermediation</td>
</tr>
<tr>
<td></td>
<td>J652 Other financial intermediation</td>
<td>J652 Other financial intermediation</td>
</tr>
<tr>
<td></td>
<td>J6521 Financial leasing</td>
<td>J6521 Financial leasing</td>
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<tr>
<td></td>
<td>J6522 Other credit granting</td>
<td>J6522 Other credit granting</td>
</tr>
<tr>
<td></td>
<td>65221 Consumer credit granting</td>
<td>65221 Consumer credit granting</td>
</tr>
<tr>
<td></td>
<td>65222 Treasuries (agency and captive)</td>
<td>65222 Treasuries (agency and captive)</td>
</tr>
<tr>
<td></td>
<td>65223 Other credit granting services</td>
<td>65223 Other credit granting services</td>
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<tr>
<td></td>
<td>65224 Standalone Treasuries (BoP 44)</td>
<td>65224 Standalone Treasuries (BoP 44)</td>
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<tr>
<td></td>
<td>65225 Securitisation Vehicles (SPVs, SPEs, Conduits etc.)</td>
<td>65225 Securitisation Vehicles (SPVs, SPEs, Conduits etc.)</td>
</tr>
<tr>
<td></td>
<td>J6523 Other financial intermediation n.e.c.</td>
<td>J6523 Other financial intermediation n.e.c.</td>
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<td></td>
<td>65231 Money market mutual funds</td>
<td>65231 Money market mutual funds</td>
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<td></td>
<td>65232 BoP30 client account reports mainly on behalf of mutual funds</td>
<td>65232 BoP30 client account reports mainly on behalf of mutual funds</td>
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<tr>
<td></td>
<td>65233 Other mutual funds and SPICs</td>
<td>65233 Other mutual funds and SPICs</td>
</tr>
<tr>
<td></td>
<td>65234 Own account security trading</td>
<td>65234 Own account security trading</td>
</tr>
<tr>
<td></td>
<td>65235 BoP30 client account reports mainly on behalf of households and non-financial corporates</td>
<td>65235 BoP30 client account reports mainly on behalf of households and non-financial corporates</td>
</tr>
<tr>
<td></td>
<td>65236 BoP30 client account reports not elsewhere specified</td>
<td>65236 BoP30 client account reports not elsewhere specified</td>
</tr>
<tr>
<td></td>
<td>65237 Other financial intermediation n.e.c.</td>
<td>65237 Other financial intermediation n.e.c.</td>
</tr>
<tr>
<td></td>
<td>J660 Insurance and pension funding, except compulsory social security</td>
<td>J660 Insurance and pension funding, except compulsory social security</td>
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<tr>
<td></td>
<td>J6601 Life insurance</td>
<td>J6601 Life insurance</td>
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<tr>
<td></td>
<td>66011 Life insurance (excl. BoP 30 client account )</td>
<td>66011 Life insurance (excl. BoP 30 client account )</td>
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<tr>
<td></td>
<td>66012 Life re-insurance</td>
<td>66012 Life re-insurance</td>
</tr>
<tr>
<td></td>
<td>66013 BoP30 client account reports mainly on behalf of life insurance companies</td>
<td>66013 BoP30 client account reports mainly on behalf of life insurance companies</td>
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<tr>
<td></td>
<td>J6602 Pension funding</td>
<td>J6602 Pension funding</td>
</tr>
<tr>
<td></td>
<td>66021 Pension fund (excl. BoP 30 client account )</td>
<td>66021 Pension fund (excl. BoP 30 client account )</td>
</tr>
<tr>
<td></td>
<td>66022 BoP30 client account reports mainly on behalf of pension funds</td>
<td>66022 BoP30 client account reports mainly on behalf of pension funds</td>
</tr>
<tr>
<td></td>
<td>J6603 Non-life insurance</td>
<td>J6603 Non-life insurance</td>
</tr>
<tr>
<td></td>
<td>66031 Captive/Agency Non-life Insurance companies(excl. BoP 30 client account )</td>
<td>66031 Captive/Agency Non-life Insurance companies(excl. BoP 30 client account )</td>
</tr>
<tr>
<td></td>
<td>66032 Other non-life insurance companies(excl. BoP 30 client account )</td>
<td>66032 Other non-life insurance companies(excl. BoP 30 client account )</td>
</tr>
<tr>
<td></td>
<td>66033 Non-life re-insurance</td>
<td>66033 Non-life re-insurance</td>
</tr>
<tr>
<td></td>
<td>66034 BoP30 client account reports mainly on behalf of non-life insurance companies</td>
<td>66034 BoP30 client account reports mainly on behalf of non-life insurance companies</td>
</tr>
<tr>
<td></td>
<td>J67 Activities auxiliary to financial intermediation</td>
<td>J67 Activities auxiliary to financial intermediation</td>
</tr>
<tr>
<td></td>
<td>J671 Activities auxiliary to financial intermediation, except insurance and pension funding</td>
<td>J671 Activities auxiliary to financial intermediation, except insurance and pension funding</td>
</tr>
<tr>
<td></td>
<td>J6711 Administration of financial markets</td>
<td>J6711 Administration of financial markets</td>
</tr>
<tr>
<td></td>
<td>J6712 Security broking and fund management</td>
<td>J6712 Security broking and fund management</td>
</tr>
<tr>
<td></td>
<td>67121 Stockbrokers</td>
<td>67121 Stockbrokers</td>
</tr>
<tr>
<td></td>
<td>67122 Other security broking and fund management</td>
<td>67122 Other security broking and fund management</td>
</tr>
<tr>
<td></td>
<td>J6713 Activities auxiliary to financial intermediation n.e.c.</td>
<td>J6713 Activities auxiliary to financial intermediation n.e.c.</td>
</tr>
<tr>
<td></td>
<td>J672 Activities auxiliary to insurance and pension funding</td>
<td>J672 Activities auxiliary to insurance and pension funding</td>
</tr>
<tr>
<td></td>
<td>67131 Authorised money brokers</td>
<td>67131 Authorised money brokers</td>
</tr>
<tr>
<td></td>
<td>67132 Other activities auxiliary to financial intermediation (e.g. trustees, custodians, mortgage brokers, bureaux de change, investment advisers)</td>
<td>67132 Other activities auxiliary to financial intermediation (e.g. trustees, custodians, mortgage brokers, bureaux de change, investment advisers)</td>
</tr>
</tbody>
</table>
Annex 3.3

Treatment of special purpose entities in Hungary

A. Characteristics and definition of SPEs

3.4.1 There is no international common definition of SPEs. Due to the different regulations existing in different countries, the SPEs settle down for exploiting different benefits. The latest versions of international handbooks (OECD’s BD4\textsuperscript{17} and BPM6\textsuperscript{18} of IMF) include general criteria which may help statisticians with detecting SPE’s.

3.4.2 According to the wording of BPM6, since there is no uniform definition, in the countries where they are significant, it is possible to treat them separately on the basis of domestic corporate law or other functional classification which refer to the limited physical presence and the existence of a non-resident owner\textsuperscript{19}.

3.4.3 According to BD4\textsuperscript{20}, an enterprise is usually considered an SPE if it meets the following criteria:

(a) The enterprise is a legal entity, formally registered with a national authority; and subject to fiscal and other legal obligations of the economy in which it is resident.

(b) The enterprise is ultimately controlled (>50 per cent of ownership) by a nonresident parent, directly or indirectly.

(c) The enterprise has no or few employees, little or no production in the host economy and little or no physical presence.

(d) Almost all the assets and liabilities of the enterprise represent investments in or from other countries.

(e) The core business of the enterprise consists of group financing, which is the channeling of funds between nonresidents.

3.4.4 As they are registered in Hungary, SPEs are regarded as resident enterprises. According to 95ESA and the Decree No. 13/2008 (XI.18.) of the Governor of the National Bank of Hungary (NBH), all units having the centre of economic interest in the economic area of the Republic of Hungary are treated as residents:

(a) any natural person who, irrespective of nationality, has been residing or intends to reside in the territory of the Republic of Hungary for at least one year, excluding the non-Hungarian members and employees of foreign diplomatic and consular representations operating in Hungary and their family members, as well as persons staying in the country for education purposes or medical treatment;

(b) Hungarian diplomatic and consular representations operating in foreign countries, the Hungarian members or employees of these organisations, and their family members;

\textsuperscript{17} OECD Benchmark Definition of Foreign Direct Investment Fourth Edition, 2008
\textsuperscript{18} IMF: Balance of Payments and International Investment Position Manual, sixth edition (BPM6) Pre publication draft, December 2008. p78 h, Flexible corporate structures with little or no physical presence, p102 Corporations with little or no physical presence, p151 Pass-through funds
\textsuperscript{19} p90 §4.87
\textsuperscript{20} Chapter 6 Special Entities p90, Annex7 Special Purpose Entities p181
SPECIAL PURPOSE ENTITIES

(c) any legal entity and organisations with no legal entity having a registered office or business premises or conducting economic activity in the territory of the Republic of Hungary, including free zones and transit areas.

3.4.5 In Hungary, the NBH has been compiling and publishing BoP and related statistics on the stock of financial assets both with and without SPEs since January 2006. As a result of the amendment of the act on corporate tax in November 2002, since January 2003 the off-shore status can not be established and the already existed off-shore companies were obliged to transform into normal businesses.

3.4.6 At the time of the discontinuation of the legal status of off-shore companies, two basic types existed in Hungary. In the first case, where Hungarian daughter companies played a passive role of intermediaries of transactions, their income from the transactions with residents was negligible. These units were classified as SPEs if they did not change their profile after they transformed into normal status. In the second case, those former off-shore companies which had performed also non-financial activities (provision of services to resident units ex. trading with property rights) and those which had changed their profile were classified as normal companies.

3.4.7 On the basis of information from the VAT and corporate tax records and other sources, the relation of SPEs with the Hungarian economy are limited to administrative costs (office rental and materials, legal and accountancy and financial services), domestic acquisition or imports of goods for representation (entertainment), staff costs and taxes.

3.4.8 For the delimitation of the scope of SPEs NBH has been co-operating with the Hungarian Central Statistical Office (HCSO). To set up a register of SPEs, those indicators are used, which can capture the main characteristics of these companies. That these units perform their activities mainly abroad and their connection with the national economy is very limited. The criteria/indicators used in the practice are the followings:

- The share of non-financial assets is very small compared to financial assets. The latter is basically held in the form of shares, long-term loans and securities.
- Their sales are made up primarily of exports and do not exceed 500 million HUF (~2 million euro).
- The number of employees is very small (maximum 3 persons).
- Their subscribed capital (capital surplus) is high, which is immediately used for giving loans, acquisition of shares abroad or creating subsidiaries abroad.
- They do not have Hungarian daughter or grand child companies.
- Their material costs are negligible.
- The name of the company refers to the “off-shore type” activity.

3.4.9 In practice, some enterprises do not meet all of the above criteria. Therefore the criteria are not applied very strictly, rather as a case by case assessment. The typical cases are:

- The company have no relation with the domestic economy and behaves as typical SPE but has more than three employees.

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The profile of the company is mixed: provision of services abroad and group financing are present at the same time. Furthermore, it does not meet the criteria on the number of employees.

According to the administrative records, the company provides services, but in fact its activity covers only book keeping and preparation of tax returns for other units.

The company is trading exclusively licence fees with nonresidents. The name of the company refers to the “off-shore type” activity.

The company has a subsidiary abroad that provides services, but all the activities are recorded in the books of the resident company.

3.4.10 In Hungary in 2006 there were around 750 active enterprises which can be grouped into SPEs according to the above definition. At the end of 2008 there were about 609 SPEs resident in Hungary.

3.4.11 However, in the meantime their activities and characteristics have changed. In the beginning, a typical pattern was FDI equity inflow and direct loan extension to establishment of non-resident branch assigned to extend the loans. Later, directly receiving equity stake in a nonresident affiliate, indirectly (through a resident affiliate) having equity stake in a nonresident enterprise, setting up a nonresident branch and allocating all its businesses into the branch became more common.

3.4.12 On the basis of the changing characteristics there is a need to reconsider and refine the SPE criteria from the 2005 definition.

3.4.13 The NBH and the HCSO have recently set up a Joint Task Force (TF) to tackle the need for a broader definition of SPEs, in order to be able to close the retroactive reclassifications of the enterprises (SPEs vs normal enterprises) which goes back beyond the normal revision period (t-2 years in BoP Statistics). The international criteria set in BD4, BPM6, 2008 SNA, and the experiences of other countries and the EU classification of SPEs will be the basis of reconsideration of definitions to be applied as from 2005.

B. Treatment of SPEs in BoP statistics

3.4.14 According to the TF, SPEs perform their activities mainly abroad, they have little relation with the host economy, they play a passive role of intermediaries of transactions, and their income from the transactions with residents is negligible.

3.4.15 SPE activities have no significant effect on the current account balance measured on an accruals basis, only the gross figures. Nevertheless, recording their activities raises difficulties in a number of subjects:

- The preliminary annual profit/losses of the non-financial corporation sector remain estimates based on domestic income processes. As there is little relationship between the financial results of these companies and domestic economic processes, in the annual estimate on SPEs it is expected that the net flows on various financial instruments are close to zero. However, a significant portion of revenues originating from abroad (interest receivable and payable etc.) are immediately recorded in the current account, thus their balance becomes distorted.

- Important economic information can be obtained by disaggregating the current account into the real economic as well as the transfer and income accounts, and by decomposing the income account into interest, dividend and reinvested earnings. The activities of SPEs also cause distortions to these indicators.
SPEs channel relatively large funds. Therefore, they strongly increase the gross figures of financial accounts. The roles that debt generating and non-debt instruments play in the current account balance are of special importance in terms of financing it. Decision makers, investors and rating agencies treat this information as highly important in regard to the vulnerability of the Hungarian forint and the sustainability of external equilibrium. Consequently, problems arise when the assets and liabilities of an SPE are not in the same instrument category: they may cause distortions to the percentage shares accounted for by debt and non-debt generating financing.

3.4.16 On the basis of the definition for SPEs, assumptions are made when compiling BoP:

- SPEs can’t have real economic activities. Transactions of goods and services are not accounted for them.
- As there is little relationship between these companies and the domestic economy, their effect on the current account balance is close to zero.
- As a result of the above two assumptions, the balance of all income flows (income from foreign direct investments and other investments) is close to zero. In the estimation of property income, the following assumption is made: A forecast is made for profit after taxation on the basis of the average profitability (rate of assets) of the past years and it is corrected by the estimate on interests (using already available data on interest flows) on a way that the effect of all income items on current account balance should equal to zero.
- The balance of revenues and expenditures within a given period equals to zero (in order to avoid generating NEO by this calculation).
- Trade credits are not accounted for SPEs, because there are also related to real economic transactions.
- The net stock of receivables at the end of the year is close to zero. (They do not have real economic transactions; the amounts payable and receivable are in relation with the rest of the world).

3.4.17 These assumptions are needed also from a technical point of view in order to compile a consistent BoP data which meets the agreed definition for the SPEs.

3.4.18 Any change in the collected data or in the definition of SPEs would result in changes in the above assumptions. In Hungary, currently SPEs are not grouped by types as in the Netherlands, but this could change as a result of the NBH-HCSO Joint TF on SPEs.

3.4.19 In order to present the weight of the SPEs in the Hungarian economy, the FDI positions and selected flows from IIP and BoP are published separately for the SPEs and for the common enterprises (tables 3.3.1 and 3.3.2). The NBH publishes BoP and IIP statistics including and excluding SPEs.
Table 3.3.1
Selected external position data

<table>
<thead>
<tr>
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<tbody>
<tr>
<td></td>
<td>SPEs excluded</td>
<td>SPEs</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FDI in Hungary (net liability)</td>
<td>62.4</td>
<td>67.8</td>
<td>60.8</td>
<td>29.5</td>
<td>67.6</td>
<td>116.8</td>
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<tr>
<td>Equity and RIE (net liability)</td>
<td>54.7</td>
<td>59.3</td>
<td>56.0</td>
<td>57.4</td>
<td>86.9</td>
<td>107.3</td>
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<td>Other capital (net liability)</td>
<td>7.7</td>
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<td>4.8</td>
<td>-27.9</td>
<td>-19.3</td>
<td>9.5</td>
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<td>17.9</td>
<td>40.8</td>
<td>35.0</td>
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<td>18.8</td>
<td>22.7</td>
<td>12.9</td>
<td>15.7</td>
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<tr>
<td>FDI abroad (net asset)</td>
<td>9.4</td>
<td>11.8</td>
<td>11.1</td>
<td>33.9</td>
<td>78.9</td>
<td>117.3</td>
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<td>11.1</td>
<td>9.1</td>
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<td>76.8</td>
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<td>2.1</td>
<td>1.1</td>
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<td>Liabilities</td>
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<td>0.3</td>
<td>0.6</td>
<td>0.0</td>
<td>0.0</td>
<td>0.4</td>
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<tr>
<td>Net external liabilities (net IIP)</td>
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<td>103.4</td>
<td>106.6</td>
<td>-4.9</td>
<td>-13.5</td>
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<td>Net external debt</td>
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<td>49.1</td>
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<td>-23.4</td>
<td>9.1</td>
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<td>Net external debt (excl. FDI other capital)</td>
<td>30.8</td>
<td>41.3</td>
<td>54.4</td>
<td>-0.5</td>
<td>-2.1</td>
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Table 3.3.2
FDI transactions in BoP

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<td>SPEs</td>
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<tr>
<td>FDI</td>
<td>2.8</td>
<td>1.6</td>
<td>2.5</td>
<td>-1.9</td>
<td>1.8</td>
<td>-1.3</td>
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<td>Abroad</td>
<td>-3.1</td>
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<td>-11.8</td>
<td>-46.1</td>
<td>-40.6</td>
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<td>Equity and RIE (net liability)</td>
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<td>-0.6</td>
<td>-11.0</td>
<td>-45.2</td>
<td>-41.0</td>
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<tr>
<td>Other capital (net liability)</td>
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<td>-0.9</td>
<td>-0.9</td>
<td>0.4</td>
</tr>
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<td>-0.1</td>
<td>-0.1</td>
<td>-0.9</td>
<td>-0.9</td>
<td>0.5</td>
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<td>0.2</td>
<td>0.0</td>
<td>0.0</td>
<td>-0.2</td>
</tr>
<tr>
<td>Abroad</td>
<td>5.9</td>
<td>4.2</td>
<td>3.1</td>
<td>10.0</td>
<td>47.9</td>
<td>39.3</td>
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<tr>
<td>Equity and RIE (net liability)</td>
<td>3.1</td>
<td>3.3</td>
<td>3.4</td>
<td>7.2</td>
<td>40.0</td>
<td>19.9</td>
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<tr>
<td>Other capital (net liability)</td>
<td>2.8</td>
<td>0.8</td>
<td>-0.3</td>
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<td>7.9</td>
<td>19.4</td>
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<td>Assets</td>
<td>-0.5</td>
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<td>-2.2</td>
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<tr>
<td>Liabilities</td>
<td>3.2</td>
<td>4.6</td>
<td>1.9</td>
<td>1.5</td>
<td>3.8</td>
<td>17.7</td>
</tr>
</tbody>
</table>

3.4.20 The set of FDI stocks excluding SPEs and the SPEs show different trend and weight according to the direction of investment (inward and outward).

C. The Hungarian GDP calculation for SPEs

3.4.21 In Hungary the main data source for GDP calculations of the non-financial corporation sector (S.11) is the corporate tax database (CTDB).

3.4.22 However, for compiling gross value added (GVA) for SPEs output and intermediate consumption (IC) data derived from the tax database turned out not to be reliable. The per capita data for turnover, output, and GVA do not match to the average values of the corresponding industries. In some cases the companies record the sales of their subsidiaries in the Hungarian corporate tax statement. Usually the high turnover data do not match to the low costs (costs of materials and services, value of goods or services for resale).

3.4.23 Because of the above facts the GDP calculation schemes for SPEs had to be different than those for the normal enterprises. The GDP compilation scheme for SPEs, which had been fine tuned for the last couple of years, is presented in diagram 3.3.1.
3.4.24 From the definition of the SPEs comes that these companies have little or no transactions with the domestic economy. Their large financial transactions take place with companies in foreign countries, and they are set up mainly for fiscal reasons in Hungary. Among the registered SPEs there are some companies which have only a mailbox in Hungary. The economically active ones usually run an office with very limited number of employees.

3.4.25 When compiling the production accounts it is assumed that these companies to some extent may have exports and/or domestic sales. The data for domestic sales and purchases (maintenance cost of the office) of SPEs are gained form the VAT database where the sales and purchases subject to VAT are listed according to VAT rates.

3.4.26 The export and import data come from the external trade statistics. For the compensation of employees the data is derived from the CTDB. The operating surplus, though not significant, is calculated as a residual item.

3.4.27 As the SPEs are mainly involved in international financial transaction, which is outside the boundaries of the production, the GVA figure of SPEs was less than 0.1 per cent of the total GVA of the non-financial corporation sector (S.11) in 2007 (see table 3.3.3).

Table 3.3.3
Share of SPEs in gross value added, 2007

<table>
<thead>
<tr>
<th>SPEs</th>
<th>Non-financial corporations</th>
<th>%National economy, total</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Output</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>68</td>
<td>158860</td>
<td>0.04</td>
<td>214079 0.03</td>
</tr>
<tr>
<td>Intermediate consumption</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>31</td>
<td>107905</td>
<td>0.03</td>
<td>127509 0.02</td>
</tr>
<tr>
<td>Gross value added</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>37</td>
<td>50955</td>
<td>0.07</td>
<td>86570 0.04</td>
</tr>
</tbody>
</table>
Annex 3.4

Special purpose entities in Russia

3.4.1 The Russian Federal State Statistics Service (Rosstat) is creating a database of enterprise groups using data from the statistical register (data on shares in authorised capital of legal units).

3.4.2 According to the Russian statistical practice the enterprise group includes a parent and its subsidiaries. Principle of groups is based on participation of one legal unit in authorised capital of other legal units. This could be direct control (share in authorised capital of other legal unit exceeds 50 per cent) or indirect control (ownership of more than 50 per cent of capital through subsidiaries). In Russia 44 thousands of enterprise groups are discovered including 654 groups with foreign parent and 3,443 groups with parent established by non-residents.

3.4.3 Presently the Rosstat’s prepared a draft entitled “Methodological Recommendations on Creation of Register for Groups of Interlinked Organisations Receiving Direct Investments From Abroad”. It aims at identifying organisations taking into account their shares in daughter and associated companies. The goal is to describe economic links with foreign countries and to identify money flows from abroad.

3.4.4 After approval of the “Recommendations”, Rosstat will elaborate on the statistical tools that will be piloted. Following the pilots and necessary improvements the survey will be conducted annually. This will allow a maintenance of the register with identification characteristics of units, data on parents and foreign subsidiaries, of subsidiaries and associated companies, indicators of authorised capital and also some data that characterises links within a group and foreign investor.

3.4.5 The survey should reveal enterprise groups with real money flows. Data on foreign parents and subsidiaries will be included into the database of enterprise groups.

3.4.6 The creation of a database for groups of interlinked organisations receiving direct investments from abroad will allow Rosstat to estimate actual influence of foreign capital to Russian economy. In addition, information on effectiveness of foreign capital flows within the country over time and on regular basis will be obtained. The data would be used by municipalities for decision-making, by banks, tax and customs authorities, and scientists.

3.4.7 Now the main problem in identifying multinational groups in Russia is lack of data of parent enterprises (or other members of groups), which are located abroad. Moreover there are a lot of difficulties due to the following unsettled problems:

(a) All possible data sources of information about enterprise groups are not defined (only information on official registration is used);

(b) Additional criteria (except of founder's shares in authorised capital) for identification of groups are not determined;

(c) There is no possibility of identifying groups with using qualitative characteristics, e.g. decision-making;

(d) There is no methodology of updating information on groups in the database using statistical accounting data;

(e) Set of economic indicators to be included into the database of enterprise groups for updating data and forming lists of units in the group is not determined;
(f) There is no methodology to define main and secondary types of group's activity, the group's number of employees and turnover;

(g) Issues of controllability of units within the group are not studied properly.
## Annex 3.5

### Special purpose entities: classification table by Eurostat

<table>
<thead>
<tr>
<th>Type</th>
<th>Institutional sector</th>
<th>Activity</th>
<th>Purpose</th>
<th>Valuation of production</th>
</tr>
</thead>
<tbody>
<tr>
<td>1a</td>
<td>Holding companies</td>
<td>65.23 Other financial intermediaries n.e.c.</td>
<td>64.20 Activities of holding companies</td>
<td>Owning subsidiaries, concentration of group profits in favourable countries/jurisdictions, group financing</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1b</td>
<td>Holding companies</td>
<td>65.23 Other financial intermediaries n.e.c.</td>
<td>64.20 Activities of holding companies</td>
<td>Owning subsidiaries, concentration of group profits in favourable countries/jurisdictions, group financing</td>
</tr>
<tr>
<td></td>
<td>owning claims on notional units abroad (buildings, natural resources)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2a</td>
<td>Trusts, funds and similar financial entities (S.122)</td>
<td>65.23 Other financial intermediaries n.e.c.</td>
<td>64.30 Trusts, funds and Return on financial investment with fiscal advantages</td>
<td>Sum of costs</td>
</tr>
<tr>
<td>2b</td>
<td>Trusts, funds and similar financial entities (S.123)</td>
<td>65.23 Other financial intermediaries n.e.c.</td>
<td>64.30 Trusts, funds and Return on financial investment with fiscal advantages</td>
<td>Sum of costs</td>
</tr>
<tr>
<td>3</td>
<td>Securisation companies</td>
<td>65.23 Other financial intermediaries n.e.c.</td>
<td>64.99 Other financial service activities, except insurance and pension funding n.e.c.</td>
<td>Assets securisation for fund raising</td>
</tr>
<tr>
<td>4</td>
<td>Captive financial leasing companies (usually, for aircrafts and vessels)</td>
<td>65.21 Financial leasing</td>
<td>64.91 Financial leasing</td>
<td>Financial leasing within a group (the SPE is not considered the economic owner of the equipment)</td>
</tr>
<tr>
<td>5</td>
<td>Captive insurance and re-insurance companies</td>
<td>66.03 Non-life insurance</td>
<td>65.12 Non-life insurance 65.20 Reinsurance</td>
<td>Insurance and re-insurance within a group</td>
</tr>
<tr>
<td>6</td>
<td>Invoicing companies</td>
<td>65.23 Other financial intermediaries n.e.c.</td>
<td>64.99 Other financial service activities, except insurance and pension funding n.e.c.</td>
<td>Invoicing sales of the group worldwide</td>
</tr>
</tbody>
</table>
## Special purpose entities: classification table by Eurostat (continued)

<table>
<thead>
<tr>
<th>Type</th>
<th>Institutional sector</th>
<th>Activity</th>
<th>Purpose</th>
<th>Valuation of production</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ownership of non-financial tangible assets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Renting of mobile equipments</td>
<td>Non-financial corporations (S.11)</td>
<td>71.00 Renting of machinery and equipment without operator (excl. 71.40)</td>
<td>Register the ownership of the asset and the rents in low tax jurisdictions</td>
</tr>
<tr>
<td>8</td>
<td>Merchanting companies</td>
<td>Non-financial corporations (S.11)</td>
<td>51.00 Wholesale trade and commission trade</td>
<td>Distribution company for a group Margin</td>
</tr>
<tr>
<td>9</td>
<td>Trading companies</td>
<td>Non-financial corporations (S.11)</td>
<td>51.00 Wholesale trade and commission trade</td>
<td>Distribution company for a group Margin</td>
</tr>
<tr>
<td><strong>Ownership of non-financial intangible assets</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Licensing and royalty companies</td>
<td>Non-financial corporations (S.11)</td>
<td>74.8 Miscellaneous business activities n.e.c.</td>
<td>Concentration of group receipts concerning royalties and similar flows received from intellectual property rights and trademarks Margin</td>
</tr>
<tr>
<td><strong>Others</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Offices of airline in airport corporations (S.11) if a branch is identified</td>
<td>Non-financial corporations (S.11)</td>
<td>62.10 Scheduled air transport</td>
<td>Transfer locus used by airline carriers to get passengers to their intended destination Prorata of airline output if no branch is identified</td>
</tr>
</tbody>
</table>
CHAPTER 4

Goods sent abroad for processing

I. Introduction

4.1 The international organisation of production has accelerated considerably in recent years; reflecting considerable improvements (and cheaper) communication and transportation technologies, trade liberalization, greater movement of capital and the presence of economies capable of offering reliable production infrastructure at low costs.

4.2 It used to be the case that when goods moved from one country to another, there would almost always be a change of ownership and this underlying reality reflected the position of the 1993 System of National Accounts (SNA). But increasingly, as the internalization of production networks has grown, this is no longer the case. In response to these new facts on the ground the 2008 SNA reflects a change from the 1993 SNA.

4.3 The 1993 SNA stipulates that in the absence of a change of ownership, a transaction must be imputed when measuring economic activity, that, in effect, assumes a change of ownership. As firms are increasingly sending material abroad for further processing, many have raised concerns about the meaning of international transactions as recorded in the balance of payments (BoP) and the SNA as the statistics become increasingly decoupled from the underlying and actual financial transactions. The logic of treating goods being processed by another unit in different ways under different conditions is difficult to rationalize and has made analysis more difficult.

4.4 The need to impute a value for goods sent for processing was extensively discussed during the preparation of the 2008 SNA and the sixth edition of the Balance of Payments and International Investment Position Manual (BPM6). The discussion led to a recommendation to no longer impute a value for goods sent for processing; which better reflects the size of international transactions and the type of transaction, namely a (processing) service rather than a good.

4.5 The recommendation also includes a provision to standardize the treatment of goods sent for processing in the SNA and BoP. The 1993 SNA records gross flows (imputation) only in cases where processing is substantial while it is always assumed substantial in BoP. Also, in the 1993 SNA, domestic processing is recorded without imputing a change of ownership unless the establishment is part of the same enterprise as that supplying the goods. Under the 2008 SNA, this difference in treatment is eliminated i.e. no transactions are imputed.

4.6 The decision to stop imputing transactions for goods sent for processing has an impact on a series of SNA accounts. Treating uniformly goods sent for processing in 2008 SNA and BoP6 eliminates the need to impute values in the production and accumulation accounts of the BoP and the SNA (see paragraph 28), resulting in an automatic balance of these accounts. The nature of the production account, notably the input-output account where the relationship between material inputs and production is central also changes. Under the new concept, emphasis is put on the contribution of each entity to the production process (or economic process) rather than on the physical technology. If the accounts are to reflect the economic process, it is important to distinguish between goods bought at arm’s length to be used in a production process to ultimately sell the product at arm’s length. This will help better understand the behaviour of economic agents and the structuring of economic activity. For example, goods crossing the border for processing only reflect the price of a service produced by the domestic economy, and the service producer plays no role in setting the price and marketing the final product which is a good. Also, as
globalised production processes become more prominent, focussing on economic process will provide a fuller and more coherent picture of the production and flows of goods and services in a global economy.

4.7 The new standard also affects the compilation and the interpretation of trade in goods and services statistics. In a paper presented at the 2007 International Monetary Fund (IMF) Committee on Balance of Payments Statistics (BOPCOM v-07/20), the impact of the new standard was highlighted in the case of Hong Kong (see Annex 4.1). With the implementation of the new standard on goods sent for processing, the balance of trade in goods of Hong Kong would be revised from a deficit to a surplus while the balance of trade in services would be revised from a surplus to a deficit.

4.8 This chapter outlines the impact of the 1993 SNA and 2008 SNA treatments on input-output statistics and how they affect the measures derived from them such as input-output models, multifactor productivity indices, and other structural indicators. Second, it presents a summary of changes that need to be implemented at both the data-collection level and the statistical estimation stage. The chapter also suggests some of the benefits and some of the drawbacks that can be expected for supply-use tables (SUT). Finally, the paper outlines how the 2008 SNA treatment impacts the analytical roles that are traditionally associated with input-output tables.

II. Background

4.9 Firms are adopting a supply chain management strategy to conduct their business. Various aspects of optimizing the supply chain include liaising with suppliers to eliminate bottlenecks; outsourcing strategically to strike a balance between the lowest material cost and transportation; implementing just-in-time techniques in order to optimize manufacturing flow; maintaining the right mix of location of factories and warehouses to serve customer markets, etc.

4.10 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.

4.11 There are many advantages and benefits of having materials processed by another firm. A firm can rely on other firms that have efficient production infrastructure in place while not having to invest large amounts of money to put one in place. It allows firms not to have to undertake maintenance of a large infrastructure while benefiting from the expertise of the other firm. It is often a way to bridge the gap between product development, commercial scale production and growth of market share.

4.12 The practice of sending goods for processing represents a challenge for statistical agencies. Toll processing arrangements allow companies to move goods around without transferring legal ownership. When goods are moved between two units of the same group, difficulties may arise in setting a value for tolling fees due to the non-market nature of the transaction. Companies are required for tax purposes to report precisely the value of such transactions since they have a direct impact on profits. However, because of the sensitivity around profit and taxes, companies may be reluctant to report information about processing fees, making the work of statistical institutions more difficult. The fact that the value of the processing service is often embedded in the value of the goods exported or imported adds to the measurement challenge.

4.13 The trend of sending goods abroad to be further processed has far-reaching implications for the pattern of international trade and production, and far-reaching impacts
on statistical systems that attempt to properly capture and measure the emerging pattern. These factors impact the configuration of domestic production and trade, but the international case is a more urgent and problematic issue, and this is why it received particular attention in the revisions recommended by the Advisory Expert Group on the update of the 1993 SNA (See “The Recommendations Made by the Advisory Expert Group for the Update of the System of National Accounts, 1993” by Intersecretariat Working Group on National Accounts, United Nations Statistical Commission, 2007).

4.14 It is however difficult to measure the size of goods sent abroad for processing. In many countries merchandise trade statistics record goods when they cross the border, not when they change ownership. Consequently, goods sent abroad for processing are included in the merchandise trade statistics. This implies that a change in ownership is always assumed (imputed).

4.15 A special study prepared by the Hong Kong Census and Statistics Department reports that Hong Kong sends a significant amount of goods for processing to Mainland China. The study shows that Hong Kong exports of goods would be adjusted down USD 53 billion while imports of goods would be adjusted down US$ 99 billion. As a result Hong Kong balance of trade of goods would be adjusted up US$ 46 billion from a deficit of US$ 14 billion to a surplus of US$ 32 billion. Imports of services would be adjusted up US$ 46 billion, resulting in a deficit in the balance of trade in services of US$ 11 billion from a surplus of US$ 36 billion.

III. International Standards

A. Change of ownership

4.16 Contrary to the 1993 SNA, the 2008 SNA no longer requires imputing a change of ownership to goods exported for processing i.e. in a situation where the exporter remains the owner of the material being processed in another country. This chapter examines this change of treatment on the input-output framework (IO) from the vantage point of a country with a large international trade sector, where outsourcing and off-shoring is most likely present in both directions but difficult to measure, and where IO statistics serve both as benchmarks to Gross Domestic Product (GDP) in current and constant prices and as the basis for widely-used analytical models, productivity measures and other structural indicators.

4.17 It is becoming common practice for firms to send their material to an affiliate or non affiliate for processing. Sometimes the material (raw or semi-processed goods) is sent to firms within the domestic economy; sometimes the material is sent abroad. The process of sending material for processing is called "goods sent for processing". This process is very common among processing industries such as chemical, electronic and metallic manufacturing. In the industry, the process is often referred to as toll manufacturing, toll processing or custom manufacturing.

4.18 There is a particular variation of this process that is of particular interest for the SNA and the BoP, goods sent abroad for processing. For SNA and BoP purposes, "goods sent abroad for processing" refers to a well specified situation, namely, when raw or semi-processed goods are sent by a unit in country A (principal) - to a unit in country B (contractor), where they are transformed in a substantive way. The principal is a unit that enters in a contractual relationship with another unit - the contractor - to carry out part or all of the production process. The contractor is a unit that carries out a specific production process based on a contractual relationship with a principal. Over the course of the transformation process, the principal maintains legal ownership of the raw and semi-
GOODS SENT ABROAD FOR PROCESSING

processed as well as the processed goods. The principal pays the contractor a fee for the processing or assembly.

4.19 Other similar arrangements also pose issues for SNA, but do not fall under the "goods sent abroad for processing" definition, and are not discussed here. For instance, a unit in country A may have its goods processed by a unit in country B, but then sells the goods to another unit in the same country (B) without repatriating them back to A. Similarly, if the processed goods were sold to another unit in a third country, C, without returning to country A, the practice would not fall under "goods sent abroad for processing".

4.20 In the 1993 SNA a transaction may or may not be recorded between two firms, depending on the situation (Paragraph 14.61 to 14.64 of the 1993 SNA provides details on how to deal with goods sent for processing.).

4.21 The fact that not all processing is treated the same way in the 1993 SNA and in the fifth edition of Balance of Payments Manual (BPM5) presents a challenge for IO compilers. Domestic processing is recorded without imputing a change of ownership unless the establishment is part of the same enterprise as that supplying the goods. International processing is recorded without imputing a change of ownership if the goods remain in the processing country or go to a third country unless, as described above, the establishment is part of the same enterprise as that supply the goods or is a direct investment enterprise of the owner. It is difficult to imagine that analysts are aware of these variations and can successfully discern exactly what changes are taking place in industries subject to growth in outsourcing without extensive assistance on untangling how many goods are subject to each of the different sorts of recording. Nor does the different treatment assist the IO compilers.

• When goods are sent abroad for processing, a change of ownership is assumed and a transaction is imputed between the two firms, resulting in an international transaction.
• However, international processing is recorded without imputing a change of ownership if the goods remain in the processing country or go on to a third country unless, as described above, the establishment is part of the same enterprise as that supplying the goods or is a direct investment enterprise of the owner.

4.22 According to the 1993 SNA a transaction should only be imputed when the amount of processing is considered significant - in practice when the goods from abroad are subsequently classified to a different group (3-digit level) after processing (Minor transformation of goods such as repair and packaging are not regarded as processing and are excluded from this consideration.) of the Central Product Classification (CPC). In the BoP, the treatment is much clearer cut. The BPM5 suggests, by convention, that all processing be assumed substantial and therefore be recorded on a gross basis, as if a change of ownership occurred.

4.23 In reviewing the concept of imputation currently in place, it was concluded that this process was not consistent with one of the basic principles of the BoP that a transaction should involve a change of ownership. As a result it was decided that under BPM6 and the 2008 SNA, the value of goods for processing would no longer be recorded in the goods account. As well, under the new standard, the payment of processing fees by an outward processing economy would be recorded as imports of services. And this recommendation extends to goods sent for processing domestically. The new standard has the advantage of being more in line with records found in the accounting books of firms while meeting a desire to avoid imputations. To the extent it is desirable to have international trade statistics on goods and services that reflect the underlying financial transactions the implementation of the new standards represents an improvement from an analytical point of view.
B. 1993 SNA and 2008 SNA treatments

4.24 The 1993 SNA treatment of goods send abroad for processing affects three parts of the SNA, the:
   (a) Current account of the BoP,
   (b) Production account of the SNA,
   (c) Accumulation account of the BoP and SNA.

1. Current account of the BoP

4.25 Under the 1993 SNA, for a country involved in "processing", a value is imputed for raw or semi-processed goods entering the country. The value of the material is recorded as an import of goods. After processing, the processed goods are exported back to the supplying country and a value is again imputed and recorded as export of goods. The difference between the two values is equal to the processing fee paid. In practice, it is possible that the difference will not be equal to the processing fee. This will be the case if prices change over the processing period, notably if processing takes place over two accounting periods.

4.26 Under the 2008 SNA, the imports and the exports of material and processed goods are no longer recorded. Processing fees are however recorded, but as a service. Overall, the current account balance is not affected. However, trade in goods diminishes while trade in services increases by the same amount.

2. Production account of the SNA

4.27 Under the 1993 SNA, the value of goods sent for processing entering the country of the contractor are allocated to intermediate inputs of the receiving industry. The value of gross output of that industry is equal to the value of the material and the value added to them by the contractor (processing fee). In 2008 SNA, on the output side, processing fees only is imputed for intermediate inputs. In theory, value added remains the same under both treatments.

3. Accumulation account of the BoP and SNA

4.28 Having assumed a change of ownership in favour of the processor, it is necessary to record a change in inventories for that processor if processing is unfinished at the end of the accounting period. Under 1993 SNA, the changes in inventories must be recorded in the capital account and the balance sheet. Since the capital account and the balance sheet of the country providing the material will also be adjusted for inventories, it is necessary to impute an entry in the financial account of both countries to show that there is no call on the foreign exchange of the processing country for the value of the goods processed. Under 2008 SNA, changes in inventories are no longer be necessary since the ownership of the material will no longer be imputed to the contractor.

4.29 The next sections deal with the various implications of 2008 SNA on the industry and commodity accounts of the input-output framework. The focus is on the international aspect of this issue. The practice of "goods sent for processing" gives rise to two specific situations that will be dealt with separately: the client case (the principal) and the processor case (the contractor). In the client case, the principal sends goods it owns to another unit (contractor) abroad to be processed. In the most general case, these are semi-processed goods of the principal's own manufacture. Once the goods are processed, they are returned to the principal, where they may be further processed or sold. The client pays a fee to the processor for the services provided. In the processor case, a contractor receives goods
belonging to the principal and, in return for a processing fee, transforms the goods using its own labour and capital before sending them back to the principal for further processing and sale by the latter.

IV. Measurement and analytical problems

A. Measurement problems

1. Goods for processing and the IO framework

4.30 This section deals with the impacts of the existing and proposed standards on the industry account and the commodity account of the IO framework. The input-output accounting framework contains two sets of accounts, the industry account and the commodity account. The industry account reflects the entries of columns in the supply-use framework. The commodity account reflects the entries of the rows in the framework. The former provides details about the commodity composition of output of industries and the complete costs structure of production. The latter details the supply and use of individual commodities. The impacts are described in the context of the 1993 SNA and the 2008 SNA in order to better evaluate the consequences of each standard.

4.31 The case examined involves a principal unit in Country A sending its semi-processed goods for further processing to a contractor unit in Country B. The contractor does not pay for the material received from the principal unit. The value of the goods sent for processing is valued at 100 while the value of the goods after processing is estimated at 160. Processing fees are equal to 60.

(a) Industry account

4.32 Under the 1993 SNA treatment, when the goods sent for processing enter Country B, a change of ownership is assumed and a transaction is imputed between the principal and the contractor, resulting in an international transaction. In the BoP, Country B is shown as importing 100. The contractor is shown as buying 100 of semi-processed goods and this amount is recorded under intermediate inputs like all other purchases of goods and services. Gross output is equal to intermediate inputs and the value added by the contractor, 160 in this case. The nature of the goods produced is different from the goods supplied by the principal. Gross output is classified as a good. (See table 4.1)

Table 4.1
Industry account under the 1993 SNA

<table>
<thead>
<tr>
<th>Gross output</th>
<th>Contractor (Country B)</th>
<th>Principal (Country A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goods (manufacturing)</td>
<td>160</td>
<td>100</td>
</tr>
<tr>
<td>Services (wholesaling)</td>
<td></td>
<td>20</td>
</tr>
<tr>
<td>Intermediate inputs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goods for processing</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>All other goods</td>
<td>20</td>
<td>50</td>
</tr>
<tr>
<td>Processing fees services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>All other services</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Value added</td>
<td>30</td>
<td>50</td>
</tr>
</tbody>
</table>

4.33 By imputing a change of ownership of the semi-processed goods (to the contractor), this allows compiling the industry account in Country B in a traditional way i.e. the full transformation of the commodity inputs into processed goods.
4.34 In Country A, the principal unit is currently shown as having manufactured 100 of semi-processed goods using its own intermediate inputs, labour and capital. Processed goods return from Country B, and they are treated as goods purchased for resale (GPRS) resulting in margins of 20 in the example above. The production of semi-processed goods and wholesaling activities remain secondary activities for the principal unit. Even though it does not appear in the production account, the main activity of the principal unit remains the production of a specific type of processed goods. If only part of the production process is outsourced, the principal is classified to the class that corresponds to the activity representing the complete production process, i.e., it is classified as if it were carrying out the complete process, including the contracted work, itself. As a result, the unit is coded to the industry that mainly produces that type of processed goods.

4.35 Under the 1993 SNA, an incoherence will occur in preparing the production account of Country A if processing fees embedded in imports of goods processed are not removed from the operating expenses reported (in a survey) by the principal in Country A.

4.36 Under the 2008 SNA (Table 4.2), the industry structure in Country B will change significantly. In the processing country, gross output will only reflect the value of the processing (60) since no imputation will be made to value the semi-processed goods received from Country A. More, production will be classified as a service, not a good. Value added will remain the same, 30. However, the relationship between GDP and gross output will change. In this case the GDP to gross output ratio go from 19% under the 1993 SNA to 50 per cent under the 2008 SNA, even though the amount of labour and capital has remained the same.

Table 4.2
Industry account under the 2008 SNA

<table>
<thead>
<tr>
<th>Contractor (Country B)</th>
<th>Principal (Country A)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goods</td>
<td>180</td>
</tr>
<tr>
<td>Services</td>
<td>60</td>
</tr>
<tr>
<td>Intermediate inputs</td>
<td></td>
</tr>
<tr>
<td>Goods for processing</td>
<td></td>
</tr>
<tr>
<td>All other goods</td>
<td>20</td>
</tr>
<tr>
<td>Processing fees services</td>
<td>60</td>
</tr>
<tr>
<td>All other services</td>
<td>10</td>
</tr>
<tr>
<td>Value added</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>50</td>
</tr>
</tbody>
</table>

4.37 Under 2008 SNA, the link between the domestic goods production and domestic employment as well as the link between goods production and the use of fixed capital will change as the size of the goods for processing phenomena increase. Other relationships such as the links between production and the consumption of energy or between production and environmental indicators, data on emissions or waste from the industries will also be affected.

4.38 The presentation of the production in Country A will also change with production (180) recorded under goods. That amount includes the value of the semi-processed goods (100), the processing costs (60) and a return on sales (20). The principal will not be attributed the production of semi-processed goods but the value of the processed goods. The contractor will be classified to the industry producing the processed goods. The principal would be coded to the same industry since he owns the material or semi-processed goods. Under the 2008 SNA, the principal will show an unusually small amount of capital and labour in relation to production. The relationship of capital and labour to gross output will be different to other units of the industry since its was the labour and the
capital of the unit in Country B that was used to produce part of the goods now reported by the principal.

(b) Commodity account

4.39 The 2008 SNA, which emphasizes transactions instead of focussing on the production process, will also affect the commodity account. This section deals with the commodity account of the supply-use tables (SUT). The commodity account is examined under the 1993 SNA and 2008 SNA. The first commodity account deals with the goods sent for processing; the second one deals with the goods processed; the last one deals with processing fees.

4.40 Under the 1993 SNA, when goods sent for processing enter the processing country, a value is imputed under imports on the supply side of the SUT. The SUT are balanced by imputing a similar amount under intermediate inputs on the use side. The processed goods are recorded under production on the supply side and exports on the use side. No processing fees need to be recorded since that value is embedded in the value of the processed goods (table 4.3). However, a statistical problem could occur if processing fees paid by the principal were captured in exports of services (trade in services).

Table 4.3
Commodity accounts under the 1993 SNA and 2008 SNA: Country of the contractor

<table>
<thead>
<tr>
<th>Country B</th>
<th>Supply</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Production</td>
<td>Imports</td>
</tr>
<tr>
<td>1993 SNA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goods for processing</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Goods Processed</td>
<td>160</td>
<td></td>
</tr>
<tr>
<td>Processing fees</td>
<td>NA</td>
<td></td>
</tr>
<tr>
<td>2008 SNA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goods for processing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goods Processed</td>
<td>60</td>
<td></td>
</tr>
<tr>
<td>Processing fees</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.41 Under the 2008 SNA, the commodity account will be quite different in the processing country. Semi-processed goods and processed goods will no longer appear in the commodity account. Processing fees will appear under production of a service and with a balancing item under export of services. This will result in a disconnect between the volume of production and exports of commodities. For example, for a country receiving crude oil for processing which is then exported back to the country of origin, analysts will have difficulty establishing a relationship between the volume of production of refined petroleum products and exports as only exports of services (related to petroleum) will be recorded under the 2008 SNA.

4.42 In the country of the principal (Country A), the commodity account will also be affected significantly under the 2008 SNA. Under the 1993 SNA, in the owning country, in order to balance the supply-use tables, it was necessary to make the semi-processed goods disappear as exports (100) and reappear as imports of another good at a higher value (160). In the example in table 4.4, goods processed returning to Country A are consumed as intermediate inputs, exported or consumed by other final demand users while some goes to inventories in various proportions.
Table 4.4
Commodity accounts under the 1993 SNA and the 2008 SNA: Country of the principal

<table>
<thead>
<tr>
<th>Country A</th>
<th>Supply</th>
<th>Use</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Production</td>
<td>Imports</td>
</tr>
<tr>
<td>1993 SNA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goods for processing</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Goods Processed</td>
<td>160</td>
<td>20</td>
</tr>
<tr>
<td>Processing fees</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2008 SNA</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goods for processing</td>
<td>180</td>
<td>X</td>
</tr>
<tr>
<td>Goods Processed</td>
<td>60</td>
<td>60</td>
</tr>
<tr>
<td>Processing fees</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.43 Under the 2008 SNA, production of semi-processed goods disappears and processed goods will appear as being produced in the country (A). Only processing fees will appear in international trade, under services.

2. Measurement problems in compiling IO accounts in the presence of goods sent for processing

4.44 The implementation of the 2008 SNA will affect the compilation of the industry and commodity accounts and subsequently their analytical uses due to the difficulty establishing relationships such as between production and exports. However, it should be recognised that the IO accounts in many countries are already affected by the phenomena because of deficiencies of the data available to compute the IO accounts. The next two sections focuses on compilation issues related to the two accounts.

(a) Industry account

4.45 In principle, the 1993 SNA and 2008 SNA lead to exactly the same GDP for the industry and for the economy in the processing country. Under the 1993 SNA, the value of goods processed will appear as an intermediate input and the same value will appear, implicitly, in the value of output, the difference between the two values being the processing fees. Under the 2008 SNA, only processing fees will appear in the industry accounts. Processing fees will appear on the output side as a service and no costs will be imputed on the intermediate input side.

4.46 In practice, differences will arise for many reasons, including:

- inconsistent reporting between the gross flows obtained from customs sources and the service flows obtained from production-related surveys,
- data gaps on international transactions of commercial services,
- the fact that groups of industries are composed of traditional producers and contractor/principal type of producers (non-homogeneity of the producers).

4.47 Table 4.5 shows a situation where a traditional processing industry is now composed of traditional producers as well as contractors. In order to simplify the example, principal-type producers are not considered.
Table 4.5  
Mixing traditional producers with contractors  

<table>
<thead>
<tr>
<th>Industry</th>
<th>Traditional producer #1</th>
<th>Traditional producer #2</th>
<th>Traditional producers</th>
<th>Traditional producer</th>
<th>Contract or type</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Period</td>
<td>t</td>
<td>t</td>
<td>t+1</td>
<td>t+1</td>
<td>t+1</td>
<td>+1</td>
</tr>
<tr>
<td>Gross output</td>
<td>125</td>
<td>75</td>
<td>200</td>
<td>100</td>
<td>50</td>
<td>150</td>
</tr>
<tr>
<td>Intermediate</td>
<td>78</td>
<td>47</td>
<td>125</td>
<td>62.5</td>
<td>12.5</td>
<td>75</td>
</tr>
<tr>
<td>Value added</td>
<td>47</td>
<td>28</td>
<td>75</td>
<td>37.5</td>
<td>37.5</td>
<td>75</td>
</tr>
<tr>
<td>IO coefficient</td>
<td>62.4%</td>
<td>62.7%</td>
<td>62.5%</td>
<td>50.0%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4.48 Table 4.5 shows what an IO analyst would normally see when analysing its industry account. The table shows an industry composed of two producers. The analyst would not have access to micro records information in column 2 and 3. In period t, the analyst would only see column 4 where a value of 75 was added to the value of material inputs to produce a gross output of 200, resulting in an IO coefficient of 62.5 per cent. In period t+1, as in period t, we assume the only information available to that same IO analyst is equivalent to column 7, where the IO coefficient changes to 50.5 per cent. The analyst does not know the industry is now composed of a traditional producer and a contractor-type producer. Looking at the historical IO coefficient, the analyst would no doubt be tempted to adjust the industry structure since unless there is a huge change in price relative, the IO coefficient of an industry rarely change by more than a few percentage points annually.

4.49 Without information on the mix of producers (micro records), it is much more difficult for national accountants to assess the accuracy of the industry accounts. It is the case under the 1993 SNA; it will be the same under 2008 SNA. In the absence of proper information on the mix of producers it is difficult to produce industry accounts that are consistent over time.

4.50 The solution could be to compute within each industry a traditional component as well as contractor and principal components. From an analytical point of view, it would have the advantage of comparing production structures that are homogeneous. The solution could also be to regroup all contractors and all principal type contractors in industries of their own. In both cases, from a compilation point of view, it would make the production of the IO accounts very laborious. Another solution may be to add an adjusting entry in the commodity account to simulate the 1993 SNA. This aspect is covered later in this paper.

(b) Commodity account

4.51 The revisions to the 1993 SNA and BPM5 revolve around the question of whether a change of ownership of the goods should be attributed to the processing unit in country B when material inputs move there from the unit in Country A, and once again attributed to the processed goods when they are shipped back to the original unit in Country A. The revisions were, at least in part, motivated by the fact that attributing change of ownership introduces inconsistencies between financial accounts which record payments for services and the BoP which records the gross flows of goods underlying those services. When 1993 SNA and BPM5 were formulated, they adopted a coordinated treatment that was appropriate at the time. (Prior to 1993 SNA and BPM5, the gross flows were excluded from exports and imports when presented on a BoP basis and the difference between the gross flows shown in merchandise trade were shown as service exports by the processing country.) 1993 SNA recommended that, when processing is substantial, (The criterion
suggested for identifying substantial processing was that the good would be reclassified at the three-digit level of CPC.) Statistical agencies attribute a change of ownership every time the goods moved across borders for processing, even though the goods always remain the legal property of the principal unit. In the BoP, this would register an export of the gross value of pre-processed goods from A to B, and an import of the gross value of processed goods from B to A involving the same two economic units.

4.52 It is helpful to describe at this point how transactions recorded under the 1993 SNA or "imputed" treatment would appear in a statistical system such as Canada's SNA where the production accounts are fully integrated with the BoP account. This is outlined below separately for Canadian contractors and principals.

4.53 At present, respondents acting as a contractor in Canada would report their inputs and outputs on a net basis, meaning that they would report as custom work the processing fee they receive for processing goods for principals and report only their own intermediate inputs. They would not report the value of semi-processed goods provided by the principal from abroad. At the same time, the imports of semi-processed goods and the exports of processed goods from Canada would appear in the system's input-output tables' imports and exports, consistent with the BoP data obtained from customs sources, on a gross basis. In order to arrive at a balance between the supply and use of output and input commodities, IO analysts must enter in the system a series of adjustments. This amounts to replacing custom work with the value of gross production (equal to the export amount), and raising the industry's inputs by the value of semi-processed goods (the import amount).

4.54 This exercise retains the industry's balance of outputs and inputs (since the processing fee is, in principle, equal to the difference between the two gross values) and the level of GDP while making the industry accounts compatible with the BoP. (When production occurs over multiple periods, inventories are also adjusted.) This imputation procedure describes the actual compilation practice in Canada when analysts have had evidence of significant cases and had sufficient data to confidently improve the quality of industry statistics.

4.55 Unfortunately information about goods sent for processing is often missing, affecting the compilation of the supply-use tables. Even though several countries agreed with the proposal to never impute a transaction when material is sent for processing, many expressed their concern about the availability of data. In many countries, when a good crosses the border, free of charge, custom staff is asked to ensure the good is valued before it crosses the border. For administration reasons, exports and imports are valued at some "market price equivalent".

4.56 In Canada, manufacturers normally provide the following type of information:

- Turnovers and inventories,
- Revenues from custom work,
- Cost of own material,
- Sub-contracting expenses.

4.57 The manufacturer is not asked to estimate a value for the material he would have received for processing. He is probably not in a position to do so. As a result, IO analysts must deal with international trade data that have been adjusted for the value of goods sent for processing and with manufacturing data where no imputation has been made for the value of goods received and processed. This creates difficulty when balancing the supply-use tables. Table 4.6 shows how.
Table 4.6
Supply-Use Tables and the contractor

Balancing Supply-Use Tables – Contractor case

| Step 1: Material is sent for processing from the principal in country A to the contractor in country B |
|---------------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Production | Imports = Inputs Final use Exports Inventories |
| 75         | 0    | 75              | 75              | 75              |
|            |      | Imbalance       |

Step 2: Production of a good

| Production | Imports = Inputs Final use Exports Inventories |
| 0          | 100          | X1 X2 X3 |
|            | Imbalance    |

Step 3: Payment stage – Processing fee

| Production | Imports = Inputs Final use Exports Inventories |
| 25         |                                              |
|            | Imbalance                                    |

4.58 In step 1 of the overall production process, semi-processed goods are imported in country B (75). Since they were not paid for by the contractor, a first imbalance appears in the SU tables. The Use of the commodity will be lower than its Supply. To the extent the IO analyst is able to verify the robustness of the various data of its SU table, the analyst will hopefully adjust inputs to balance the system, implicitly imputing a value for the material that enter the country, a value that was not captured during the collection process.

4.59 In step 2, production takes place and the processed good is sent back to its owner in country B. An export is recorded at say 100. However, on the collection side, no value would have been collected except the amount the contractor in country B would have received for processing the material. As a result, a second imbalance could occur. Unless production is adjusted, the SU tables would not have been balanced properly.

4.60 Finally, in step 3, since the processing fee would have been embedded in the value of the exported processed goods, it is not clear to what extent national accountants are able to deal with the double-counting of processing fees which are, in theory, reported by the contractor and embedded in the value of exports.

4.61 Table 4.7 shows similar imbalances that could also occur in the case of the principal.

Table 4.7
Supply-Use Tables and the principal

Balancing Supply-Use Tables – Principal case

| Step 1: Material is sent for processing from the principal in country A to the contractor in country B |
|---------------------------------------------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| Production | Imports = Inputs Final use Exports Inventories |
| 75         | 75              | 75              | 75              |
|            | Imbalance       |

Step 2: Production of a good

| Production | Imports = Inputs Final use Exports Inventories |
| 100        | 100            | X1 X2 X3 |
|            | Imbalance       |

Step 3: Payment stage – Processing fee

| Production | Imports = Inputs Final use Exports Inventories |
| 25         |                                              |
|            | Imbalance                                    |

4.62 In this case, let’s assume a manufacturer in country produces material for a value of 75. That material is then purchased by a principal in Country A at a value of 75, which
export the material to Country B for processing. Assuming that for administrative reasons the export was valued at 75 by custom staff, this would have translated in a first imbalance in the SU tables in excess of use.

4.63 If it was the principal unit that had produced the semi-processed goods, the situation would have been different. Principal A would have recorded a production of 75 which would have translated into an export of 75 to Country B.

4.64 Another imbalance would have occurred after the contractor delivers the goods to the owner of the material. The goods would be imported back to country A at a value of 100. The owner would have reported turnovers of 100 in the manufacturing survey, creating an imbalance.

4.65 Finally, since the manufacturer (principal) in country A would have reported a processing fee (expense) of 25, an amount hidden in the value of the good imported, this would have created another imbalance.

4.66 The lack of coherence between the international trade data and the domestic surveys is potentially creating undesirable imbalances in the commodity accounts in the absence of explicit information on the value of goods send for processing. This will change with the implementation of the 2008 SNA, provided the trade statistics are consistent with the corresponding financial transactions. Several countries, even those in favour of not imputing a value for goods send for processing, have expressed concerns on this issue. Many countries have indicated that it would be difficult for their custom authorities to identify goods for processing from other merchandise trade. If this were the case, balancing the SU tables in the context of goods send for processing will remain a challenge under the new standard.

3. Transportation margins

4.67 The link between transport margins and commodities will no longer exist when the 2008 SNA is implemented. It would not be very useful to associate transportation margins with processing fees. With the implementation of the new standards, transportation services will replace transportation margins in the IO account.

B. Analytical challenges

(a) IO linkages

4.68 A significant analytical disadvantage posed by not imputing a financial transaction for goods sent for processing is that supply and use tables will no longer serve as the data source for exports and imports of goods that have been involved in the goods for processing phenomenon. Under the 1993 SNA, on the other hand, supply and use tables facilitate the analysis of a variety of outsourcing questions by preserving the link between commodity flows, their producing industries as well as intermediate and final users.

4.69 One such significant consequence is that the forward and backward linkages articulated under the 1993 SNA treatment for processing industries would disappear under the 2008 SNA treatment. In particular, when studies look at the linkage of goods with other goods used to produce them, the processing units will be absent since the processed goods will not appear in the inputs or outputs of the industries concerned. For instance, if we need to answer a question, such as how much upstream production or employment is associated with petroleum by-products, input-output tables can address this question when they have linkages between upstream and downstream industries: chemical manufacturers producing petroleum by-products, petroleum refiners, and crude petroleum extraction. However if, in a hypothetical situation, the refining of petroleum was done by a contractor
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whose output in the system appears as "refining services", input-output linkages between upstream and downstream processes would be severed, preventing such a calculation.

(b) **Regional IO tables**

4.70 A key implication of the impact of not imputing a change of ownership on input-output linkages discussed above is for multi-regional supply and use tables, such as the Canadian interprovincial input-output tables. In such an integrated national-regional table, linkages between goods and services exist not only across production processes in different industries, but also across regions (Canadian provinces and territories). The Canadian tables show the linkages between processes in different regions through an inter-regional trade flow matrix. These regional tables are routinely used to assess the upstream or downstream values related to a given commodity or industry across all regions of the domestic economy. However, this is subject to an important exception in the case of goods sent for processing. Since surveys of Canadian goods producing industries ask for the revenues and the cost related to contract processing or "custom work", a net treatment is built into the compilation of regional supply and use tables. As in the petroleum example presented above, by not imputing a change of ownership would result in severing linkages when goods are sent to other regions for processing, thus limiting the ability of input-output tables in documenting and analysing technological dependencies between industries and between regions. In this particular case, an imputation was made and added to the interprovincial tables to effectively permit the technological linkages to be maintained for petroleum products.

(c) **International trade**

4.71 The 1993 SNA calls for reflecting gross values of imports and exports when goods are sent abroad for processing. The most clear and intuitive drawback of this treatment is that it exaggerates the highly visible and widely used measures of import intensity and export performance for goods producing industries generally and for the individual manufacturing industries in particular. Trade ratios such as exports/gross output and imports/production overstate true export and import intensities and make the industry appear more financially vulnerable to external trade. In addition, by subsuming the value of processing services in the gross values of traded goods, the treatment understates the values of international trade in services. To get a better sense of how much exports really matter to the economy's GDP, studies often net out the import content of exports (or vice versa) in order to correct the exaggerated effect of outsourcing, including the cases of "goods sent abroad for processing". Such overstated ratios in turn embellish the influence of factors such as exchange rates and the strength of foreign demand for exports on the domestic economy generally and goods producing industries in particular.

4.72 Under the 2008 SNA treatment, only imports and exports of services will be recorded in the final demand table of input-output tables. As a result, the analysis would produce a lower estimate of imports associated with (or used in the production of) exports because it would be restricted to imports with ownership transfer. In this case, the 2008 SNA treatment effectively alters the answer that the analyst would receive from performing a common input-output inquiry and it would be important to clearly explain to IO users how the 2008 SNA treatment affects the conclusions reached in the analysis.

(d) **Input-Output models**

4.73 Open output-determination models, such as those estimated from the Canadian input-output tables, depend critically on market shares and input cost shares of goods and services to compute the impact of an exogenous change or "shock" to a system of inter-industry linkages beginning from an equilibrium position. To the extent that an industry uses the outputs of other industries as its intermediate use it has a backward linkage to all those industries. And, to the extent that a given industry supplies the intermediate inputs of
others through its own production it has a forward linkage to those industries. When the chain of inter-industry commodity flows is interrupted because products are imported from abroad, there is a "leakage" from the domestic economy. A larger leakage (a larger proportion of the supply of a commodity coming from imports) implies a smaller feedback from a demand shock on the production of the rest of the system. Under the 1993 SNA treatment, the import coefficient of a contractor industry is larger than under a no imputation treatment because intermediate inputs include the gross value of goods received from the principal for processing. The larger import coefficient leads to an understatement in impact coefficients of the output-determination model, thereby understating the total impact of any exogenous change on domestic production not necessarily in terms of value added.

4.74 On the other hand, a large number of industries could be involved in processing. For each of these industries, it would be ideal to identify separately the processing fees component separately from other industries. If processing could not be associated with a specific industry, allocating the demand for processing services to the proper producing industries based on market shares would spread the gross output to all producers involved in processing. For modelling purposes the 2008 SNA treatment requires a fair amount of detail on processing by industry in order to properly calculate IO impacts related to processing.

(e) Productivity measures

4.75 The implications of the increasing prevalence of "goods for processing" for productivity deserve a mention when a goods-producing industry consists of one segment that operates on a traditional business plan and another segment that uses contract processing. When processing goods for a principal becomes more prevalent in a given industry over the traditional own-account processing, the industry's measured GDP (and GDP growth) remains unaffected (imputing or not). It is clear in this case that the industry's productivity growth measured as the difference between real GDP growth and the growth in an index of labour inputs remains unaffected, as the same real GDP is produced with the same set of primary factors of production. However, in practice, one could expect higher efficiency from the contractor making better use of the capacity of its firm.

4.76 Looking at the principal side, when more producers in an industry make use of contract processing abroad in place of own-account goods processing, one would expect the overall industry's productivity growth to increase. Under a no imputation treatment, the measured input and output sets of the industry will not change as a result of the use of contract processing. However, when producers find it cost effective to send goods abroad for processing, the implication should lead to a reduction in unit costs of output compared to a traditional arrangement of production. Under competitive conditions, this means that, in real terms, more outputs are produced per combined unit of inputs for the producer in question. In nominal terms, while it is clear that contract processing abroad lead to greater profits for the industry, this may or may not be offset by the lower wage costs under contract processing so that it is not clear whether nominal GDP will be higher or lower.

4.77 For the calculation of multifactor productivity where the result is a function of gross output and intermediate inputs (KLEMS database), the impact of the 2008 SNA is unclear and will require researching.
V. Operational treatment

A. Adjusting entries

4.78 The implementation of the 2008 SNA should facilitate the balancing process of the commodity account. It is not so clear in the case of the industry account where homogeneity of the structure is an important element. Mixing traditional producers with contractors in a given industry will complicate the compilation process. One of the solutions could be to regroup contractors and principal type producers in separate industries. However, since in every industry, some units will be a blend of traditional producers and contractors, it would be difficult to implement such a strategy. The real solution may be to expand the commodity account to include adjusting entries. These adjusting entries would be equivalent to the value currently imputed. In the case of a contractor, output and intermediate inputs would contain an adjusting entry of the same value while processing fees would be reported in a separate service commodity. The implementation of adjusting entries in the IO framework would help alleviate some of the analytical issues the new concept will create to analysts focusing on structural analysis.

4.79 Adjusting entries could be stored separately in a file of the same dimension as the one containing the IO accounts data. The data could be added to the initial set of data which would exclude goods for processing. This type of information would be very useful to IO compilers in interpreting structural changes. This type of decomposition has been implemented in the compilation process of the Canadian IO tables where a series of conceptual adjustments are kept separate in the IO database. Conceptual adjustments consist of items such as the capitalization of software, financial intermediation services indirectly measured (FISIM) or head offices. The database also contains another series of adjustments showing necessary adjustments to source data to calibrate the IO accounts.

B. Trade data

4.80 Input-output tables provide benchmarks for GDP in both current and constant prices. In addition, they are the sole source of data on gross output and GDP by industry in both price bases. The supply and use tables of the Canadian IO accounts have a rectangular format, providing for many outputs per industry. For each commodity (good or service) articulated in the IO accounts, supply from domestic production and imports are balanced with disposition (use). The latter consist of intermediate use, final domestic use (e.g., consumption, investment, and government expenditure), inventory change and exports. Elements that make up this commodity-balance are estimated within a framework where, in addition to equating supply and disposition, outputs of industries are equated with their total inputs and GDP components. Import and export data used to construct this commodity balance originate from the system's BoP. For goods, the BoP depends on merchandise trade data obtained from customs, adjusted to accord with BoP concepts and classification. For services, the data is obtained from the survey of International Transactions in Commercial Services. The latter encompasses some 3,200 firms, mostly large corporations, with significant involvement in imports or exports of services. The survey covers the entire spectrum of internationally traded services including "contract production abroad".

4.81 One possible approach to removing goods sent for processing values from merchandise trade is to identify goods that are declared as “for processing” when they are clearing customs and use the tagged information to adjust merchandise trade when it is estimated on BoP basis. Goods going into Free Trade Zones (FTZ), and those originating from them back into Canada, could be documented and tagged for treatment. Specific
measures must be taken to distinguish the qualified goods - those which go into FTZ's and come back to the same unit in Canada-from other goods. For goods processed outside these zones-as is the case in Canada's contract processing industry - this requires international agreements between customs authorities of major trading partners that specifically deal with the terms and conditions of identification, evaluation and reporting of goods for processing. The tagged information on exports and imports must be collected at the lowest level of the Harmonized System of commodity classification in order to make it possible to link them with commodity categories of the supply and use tables. This will allow analysts to compare the net values of tagged exports and imports with processing costs from principal units and revenue data from processing units obtained from industry sources.

4.82 An alternative data source for both principal units and contractor units in Canada is to refine and improve the existing survey of International Transaction of Commercial Services. This survey is used to provide data on the services components of imports and exports in the balance of payments. At the present time, a major redesign project is in progress at Statistics Canada that will see the survey frames of the latter survey revamped and linked to the Agency's Business Register - the most comprehensive list of businesses in Canada from which samples are obtained for Statistics Canada's business surveys. A complete link between the two frames will allow data collected through this survey to be used in conjunction with the Annual Survey of Manufactures which is the principal source of data on inputs and outputs of goods producing industries. The survey presently collects data on contract production services from large Canadian plants that export and import commercial services. Further refinements to the questionnaire would permit an estimate of 'goods for processing' from other contract processing originating from or destined to abroad. Revenues and expenses related to 'goods for processing' from this source would then be used as a check on the difference between the gross values of exports and imports of goods identified in merchandise trade that meet the definition of goods sent abroad for processing.

C. Sampling

4.83 The 1993 SNA exposes the data collection process to a sampling problem when it treats contractor-type producers and the traditional producers which make up the majority of units in an industry class as homogeneous. Surveys in Canada proceed by identifying a "take-all" portion of the industry's universe - those which are either multinational or account for a large proportion of the industry's turnovers. Other smaller establishments (the "take-some" portion) are sampled and used in an estimation procedure that infers values for non-sampled units from those that were selected to be in the sample. When units are not classified to different industries or treated as units of different sampling strata, they share the same probability of being selected to represent units with similar statistical attributes. This may lead to a situation where contract processing units are selected for a sample and their production statistics are used to make inferences about traditional units in the sample (and vice versa). A sampling error may arise when the contractor-type producers report their statistics in net terms (they produce a service), whereas traditional establishments report their gross production and gross intermediate cost values. Estimates for some periods would overestimate, and others underestimate, the true values depending on which type of manufacturing unit is actually sampled. This introduces excess variability into time-series of basic industry statistics even when a simple random sampling procedure is used.

4.84 Finally, contractor-type producers will have fewer chances to be selected in the sample if sampling is based on turnover instead of value added. This presupposes that the classification system is such that processing units have already been identified. This is
important in order to deal correctly with the issue underlying table 4.5 where without information about the mix of producers, it will be difficult for IO accountants to assess the accuracy of the production accounts.

D. Sub-annual surveys

4.85 Several countries are collecting sub-annually data on turnovers and inventories in order to monitor production in the manufacturing sector. To the extent the goods sent abroad for processing phenomena is important, surveys which are not explicitly differentiating between shipments and processing fees will undoubtedly give wrong signals. Finally, since the price of goods processed and the price for processing fees will most likely differ, price deflators for processing fees needs to be developed.

E. Survey questionnaires

4.86 Given the difficulties that can be foreseen in obtaining satisfactory data from the sub-annual survey source, existing industry surveys can be used as a second and complementary source to obtain estimates of exports and imports of "for processing" goods. For a principal unit, new questions in the Canadian Annual Survey of Manufactures should be about information on the value of goods of own manufacture that are sent abroad for processing, the post-processing value upon return to the unit, and the fees paid to foreign contractors that, adjusted for timing and transaction costs, would make up the difference between the two values. The two gross values, summed across all industries, can be compared with the tagged data obtained from customs sources to enhance data quality and consistency of a given class of goods.

4.87 An element required for implementing the 2008 SNA is data on costs of processing services when goods are processed abroad, and the revenues earned by Canadian contractors from foreign principals. For principal units located in Canada, revenues earned from processing principal goods are presently reported as a separate item in the Annual Survey of Manufactures. The survey does not specify, however, whether the principal is a foreign resident affiliate or subsidiary of the same enterprise or whether the goods are returned to the principal after processing or shipped to a third party or country. A more specific wording and a separate question that allows a separate estimate for goods for processing from other outsourcing costs needs to be added to the existing survey. Once a specific estimate is obtained from this survey, the costs of 'goods for processing' can be compared to the net value of gross trade data for this activity from customs sources to ensure data quality and consistency.

4.88 Processing units in Canada similarly report their gross income from contracting fees to the Annual Survey of Manufacturers as revenues from "custom work". Once again, the reported revenue would include processing for domestic and foreign principals and include processing that meets the conditions of goods for processing as well as other activities. More specific wording and a separate question in this survey will be needed in order to isolate income from goods in processing for foreign principals in order to allow comparison with the net values of trade data obtained from customs.

4.89 In the Netherlands, in the questionnaires collecting business statistics, the respondents are asked to report amounts paid to and received from sending or receiving goods for processing. The amounts are recorded as "amounts charged to foreign firms for active processing" and "amounts paid to foreign firms for passive processing". Active processing is defined as processing being done by a domestic firm while a foreign firm owns the material goods required for the processing. Passive processing depicts a situation where the domestic firm sends material goods abroad for processing. A foreign firm does
the process and sends the processed goods back to the domestic firm. That firm pays fees to the foreign firm. As well, firms declaring foreign trade on goods are asked whether the transaction concerns imports or exports for processing abroad. Statistics Netherlands (CBS) recognised the flows concerning processing abroad are very difficult to observe. The fact that goods often return in a different time period, the difficulty for multi-national enterprises to make a distinction between domestic processing and processing abroad as well valuation problems due to discrepancies caused by import tariffs and duties and transportation costs are other factors that represented a challenge in quantifying the goods sent abroad phenomena.

F. Prices

4.90 Industry statistics are not only prepared in nominal terms but also in real terms. Price indexes are normally available for products but much less information is available about prices related to assembling these products.

4.91 With the implementation of the 2008 SNA and the concepts of goods for processing, there is a need to develop price indexes different for both the production and intermediate consumption for contractor-type producers. The movements of the price of the product assembled by the contractor-type producer and the one related to assembly are most likely different.

VI. Concluding remarks

4.92 With the advent of the globalisation, there is a need to portray production activities in a different way. In the context of globalisation, the focus is more on how the production process is spread (organised) than on the technology required for the production process to take place.

4.93 A better understanding of goods send for processing is certainly a step towards a better understanding of globalisation. It gives a much better idea of the size of international trade in overall economy. In many ways, the 2008 SNA will be simpler to apply compared to the 1993 SNA since it will no longer be necessary to impute values in various places of the IO framework. The recording of goods for processing has been discussed extensively during the updates of the 1993 SNA and BPM6 and a consensus has been reached to not impute a value for these kinds of transactions. The 2008 SNA has been accepted while recognizing its implementation could be difficult due to data gaps. However, the data gaps issue is no different than the one SNA analysts face in applying the 1993 SNA. Imputing for goods for processing requires adjusting annual surveys on production to custom data while not imputing requires removing goods for processing from custom data to align them with annual surveys on production. Consequently, national statistical institutes will most likely need to continue to gather a significant amount of information on goods send for processing. Above all, there is a need to ensure they are removed from custom trade data where required for administrative reason.

4.94 While the international community reached a consensus on no longer imputing a value for goods sent for processing, it is recognised the organisation of data required by the 2008 SNA limits the structural relationships that are shown within the IO framework based on the 1993 SNA. Without structural linkages, the tables cannot be effectively used, for instance, to study outsourcing phenomenon. This is a key feature of supply and use tables and has often been their "raison d'être".

4.95 The conclusion suggested by this analysis is that both the "imputation" and the "no imputation" treatments be maintained to ensure the traditional usefulness of supply and use
GOODS SENT ABROAD FOR PROCESSING

Compiling and presenting the data on both bases and appropriately informing data users preserves the advantages of both treatments without taking away the well-established and traditional application of supply and use tables. The fact that statistics on goods for processing are necessary to implement or not the concept makes this very attractive.

4.96 The Supply and Use framework is the only statistical framework that explicitly shows the combination of goods and services that enter into the production of other goods and services. How this relationship or “production technology” is represented is critically important to the types of questions that supply and use tables can accommodate and the kind of answers they would provide. It is important to explore further whether the new “net” representation of production technology - compared to one that is gross of inputs not owned by the producer - is capable of addressing questions traditionally dealt with by input-output tables.

VII. References


Carol, Carol S., Recognizing Globalization in the Updated SNA, Paper presented at the International Association for Research in Income and Wealth (IARIW) and the National Bureau of Statistics (NBS) of China, September 2007

Census and Statistics Department, Strategy for Implementing Recommendations on Goods for processing and Merchanting in BPM6 - The case of Hong Kong, Twentieth Meeting of the IMF Committee on BOP Statistics, Washington D.C. November 2007, Hong Kong Special Administrative Region, People's Republic of China (BOPCOM-07/20)

Census and Statistics Department, Implementing the New Statistical Standards and Merchanting in Hong Kong, China, Twenty-First Meeting of the IMF Committee on BOP Statistics, Washington D.C., November 2008, Hong Kong Special Administrative Region, People's Republic of China (BOPCOM-08/12)

Annex 4.1
The case of Hong Kong, China

I. Introduction

4.1.1 Hong Kong is one of the world's largest trading entities and a premier trading hub in the Asia Pacific region. The past decades saw a continuous integration between the Hong Kong economy and the economy of Mainland China. Factories operated by Hong Kong entrepreneurs in the Mainland produce a wide range of commodities which are exported to many parts of the world.

4.1.2 Over the past years, trading activities relating to 'goods for processing' and 'merchanting' play a vital role in the external trade of Hong Kong. In 2006, about 30 per cent of imported goods into Hong Kong, and 17 per cent of goods exported from Hong Kong were related to goods for outward processing in the Mainland, whereas about 26 per cent of exports of services of Hong Kong were related to 'merchanting' activities. The historical trend of outward processing trade of Hong Kong with Mainland China23 and exports of merchanting services from Hong Kong, is presented in Charts 4.1.1 and 4.1.2 respectively.

Chart 4.1.1
Outward processing trade of Hong Kong with China

<table>
<thead>
<tr>
<th>Year</th>
<th>Exports to China Involving Outward Processing</th>
<th>Imports from China Involving Outward Processing</th>
</tr>
</thead>
<tbody>
<tr>
<td>1991</td>
<td>25,400</td>
<td>6,000</td>
</tr>
<tr>
<td>1994</td>
<td>23,444</td>
<td>8,975</td>
</tr>
<tr>
<td>1997</td>
<td>36,639</td>
<td>12,356</td>
</tr>
<tr>
<td>2000</td>
<td>36,220</td>
<td>12,291</td>
</tr>
<tr>
<td>2003</td>
<td>41,046</td>
<td>41,790</td>
</tr>
<tr>
<td>2006</td>
<td>99,037</td>
<td>99,877</td>
</tr>
</tbody>
</table>

Chart 4.1.2

22 Based on a paper prepared for the Twentieth Meeting of the IMF Committee on Balance of Payments Statistics, Washington D.C., October 29 – November 1, 2007

23 In the past 20 years, the Mainland of China remains to be the hinterland for outward processing activities of producers in Hong Kong (HK). As Mainland China develops into a major manufacturing and processing centre in the region, its production cost remains relatively low. Producers in HK would import major components from say, Japan, arrange to send the components to the Mainland for assembling, and then export the final products to the US. Producers in HK mainly perform the management, marketing and other manufacturing related functions. As an illustration, for every sales of US$100 of these computer monitors, roughly about US$50 would be the value of components imported from Japan, US$17 the processing fees received by plants in the Mainland, and US$33 the margins earned by producers and traders of HK.
4.1.3 At present, data required for the compilation of goods account of Hong Kong’s BoP statistics primarily come from external merchandise trade statistics compiled on the basis of trade declarations submitted by importers and exporters. The external merchandise trade statistics record all movements of goods at the time they cross the border of Hong Kong, but not at the time of change of ownership. ‘Goods for processing’ are thus included in the merchandise trade statistics, and are recorded at the time they are exported to the processing economy or returned to the original economy for local use or re-export. This implies that a change in ownership is always imputed for “goods for processing” whenever they move into or out of Hong Kong, and are recorded on gross basis under the goods account. Under the present framework, “merchanting” is also treated as an exception to the “change of ownership” principle.

4.1.4 The new international statistical standards on ‘goods for processing’ and ‘merchanting’ which will be promulgated in 2008 SNA and in BPM6 would have a substantial impact on the presentation, compilation and interpretation of external trade statistics of Hong Kong. The implementation of the new statistical standards would be one of the major initiatives and challenges of the Census and Statistics Department of the Hong Kong SAR in the coming years.

4.1.5 The major focus of this annex is to present preliminary ideas regarding the plans of the Hong Kong SAR in implementing the new statistical standards. Specific issues relating to data collection and dissemination of statistics are also briefly addressed. It should however be noted that the ideas as presented in the annex are only preliminary at this stage. It is expected that a thorough consultation process involving various parties concerned would be initiated shortly to provide inputs to enhance the implementation plan within resource limits.

II. Impact of implementing the new international statistical standards

4.1.6 In order to roughly assess the impact of implementing the 2008 SNA and BPM6 on relevant statistics of Hong Kong, an adjustment was made to the statistics for the year 2006 based on a crude estimation method. The adjusted figures help to illustrate the likely magnitude of the impact of the change.
4.1.7 It can be seen from Table 4.1.1 that implementation of the new international statistical standards would have a sizeable impact on the external trade statistics of Hong Kong. In particular, the balance of trade in goods in 2006 would be revised from a deficit of US$14Bn to a surplus of US$51Bn, and the balance of trade in services from a surplus of US$36Bn to a deficit of US$29Bn. In addition, given the importance of ‘goods for processing’ and ‘merchanting’ for the Hong Kong economy, the significant downward revision in the figures in respect of exports of goods and exports of services would change the relative ranking of Hong Kong in world exports of goods and services.

Table 4.1.1
Impact of implementation of 2008 SNA and BPM6 on ‘Goods for Processing’ and ‘Merchanting’

(US$Bn)

<table>
<thead>
<tr>
<th>External Trade of Hong Kong</th>
<th>Value for Year 2006</th>
<th>Adjusted for 'Goods for Processing’ Only(^{24})</th>
<th>Adjusted for 'Merchanting’ Only</th>
<th>Adjusted for Both 'Goods for Processing’ and 'Merchanting’ (^{25})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Imports of Goods</td>
<td>332</td>
<td>233 (-30%)</td>
<td>332 (-30%)</td>
<td>233</td>
</tr>
<tr>
<td>Exports of Goods</td>
<td>318</td>
<td>265 (-17%)</td>
<td>336 (+6%)</td>
<td>283</td>
</tr>
<tr>
<td>Balance of Trade in Goods</td>
<td>-14</td>
<td>+32</td>
<td>+5</td>
<td>+51</td>
</tr>
<tr>
<td>Imports of Services</td>
<td>37</td>
<td>83 (+127%)</td>
<td>37 (+127%)</td>
<td>83</td>
</tr>
<tr>
<td>Exports of Services</td>
<td>73</td>
<td>73</td>
<td>54 (-25%)</td>
<td>54</td>
</tr>
<tr>
<td>Balance of Trade in Services</td>
<td>+36</td>
<td>-10</td>
<td>+18 (-25%)</td>
<td>-29</td>
</tr>
<tr>
<td>Balance of Trade in Goods and Services</td>
<td>+22</td>
<td>+22</td>
<td>+22</td>
<td>+22</td>
</tr>
</tbody>
</table>

4.1.8 A comparison of the rankings of Hong Kong and major trading economies in terms of exports of goods and exports of services for 2006 are presented in Tables 4.1.2 and 4.1.3 respectively.

4.1.9 As trade statistics are an important source of information used in bilateral trade negotiations among economies, a significant revision in trade figures would likely cause confusion to data users and policy makers. The likely impact of this revision on trade negotiations has to be carefully assessed. Issues concerned have to be identified and addressed before implementing the new international statistical standards.

\(^{24}\) Based on the assumption that the processing activities not related to the Mainland is not significant in size.

\(^{25}\) Summing up the adjustment for ‘goods for processing’ and the adjustment for ‘merchanting’ to obtain a combined adjustment. For example, the adjustment on exports of goods for both ‘goods for processing’ and ‘merchanting’, US$(283-318)Bn, is equal to the sum of adjustment for ‘goods for processing’, US$(265-318)Bn, and the adjustment for ‘merchanting’, US$(336-318)Bn. Any remaining discrepancy is due to rounding.
### Table 4.1.2
**Top 15 economies in exports of goods for year 2006**

<table>
<thead>
<tr>
<th>Economy</th>
<th>Exports of Goods</th>
<th>Exports of Goods (Adjusted Figures)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Germany</td>
<td>1,131 (1)</td>
<td>1,131 (1)</td>
</tr>
<tr>
<td>United States</td>
<td>1,027 (2)</td>
<td>1,027 (2)</td>
</tr>
<tr>
<td>China</td>
<td>969 (3)</td>
<td>969 (3)</td>
</tr>
<tr>
<td>Japan</td>
<td>616 (4)</td>
<td>616 (4)</td>
</tr>
<tr>
<td>France</td>
<td>483 (5)</td>
<td>483 (5)</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>450 (6)</td>
<td>450 (6)</td>
</tr>
<tr>
<td>Italy</td>
<td>417 (7)</td>
<td>417 (7)</td>
</tr>
<tr>
<td>Canada</td>
<td>402 (8)</td>
<td>402 (8)</td>
</tr>
<tr>
<td>Netherlands</td>
<td>391 (9)</td>
<td>391 (9)</td>
</tr>
<tr>
<td>Korea, Republic of</td>
<td>332 (10)</td>
<td>332 (10)</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>318 (11)</td>
<td>283 (13)</td>
</tr>
<tr>
<td>Russian Federation</td>
<td>304 (12)</td>
<td>304 (11)</td>
</tr>
<tr>
<td>Belgium</td>
<td>284 (13)</td>
<td>284 (12)</td>
</tr>
<tr>
<td>Singapore</td>
<td>275 (14)</td>
<td>275 (14)</td>
</tr>
<tr>
<td>Mexico</td>
<td>250 (15)</td>
<td>250 (15)</td>
</tr>
</tbody>
</table>

Figures in brackets are rankings among economies in the world.

**Sources:** International Financial Statistics of the IMF and statistics published in websites of relevant national statistics offices.

Figures for Hong Kong are adjusted for ‘goods for processing’ and ‘merchanting’ based on BPM6 standard, whereas figures for other economies are assumed unchanged.

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### Table 4.1.3
**Top 15 economies in exports of services for year 2006**

<table>
<thead>
<tr>
<th>Economy</th>
<th>Exports of Services</th>
<th>Exports of Services (Adjusted Figures)</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>409 (1)</td>
<td>409 (1)</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>230 (2)</td>
<td>230 (2)</td>
</tr>
<tr>
<td>Germany</td>
<td>174 (3)</td>
<td>174 (3)</td>
</tr>
<tr>
<td>France</td>
<td>118 (4)</td>
<td>118 (4)</td>
</tr>
<tr>
<td>Japan</td>
<td>117 (5)</td>
<td>117 (5)</td>
</tr>
<tr>
<td>Spain</td>
<td>106 (6)</td>
<td>106 (6)</td>
</tr>
<tr>
<td>Italy</td>
<td>99 (7)</td>
<td>99 (7)</td>
</tr>
<tr>
<td>China</td>
<td>92 (8)</td>
<td>92 (8)</td>
</tr>
<tr>
<td>Netherlands</td>
<td>85 (9)</td>
<td>85 (9)</td>
</tr>
<tr>
<td>India</td>
<td>75 (10)</td>
<td>75 (10)</td>
</tr>
<tr>
<td>Hong Kong</td>
<td>73 (11)</td>
<td>54 (15)</td>
</tr>
<tr>
<td>Ireland</td>
<td>68 (12)</td>
<td>68 (11)</td>
</tr>
<tr>
<td>Belgium</td>
<td>60 (13)</td>
<td>60 (12)</td>
</tr>
<tr>
<td>Canada</td>
<td>59 (14)</td>
<td>59 (13)</td>
</tr>
<tr>
<td>Singapore</td>
<td>59 (15)</td>
<td>59 (14)</td>
</tr>
</tbody>
</table>

Figures in brackets are rankings among economies in the world.

**Sources:** International Financial Statistics of the IMF and statistics published in websites of relevant national statistics offices.
III. Important issues in implementing the new international statistical standards

A. Additional data requirement

4.1.10 In order to implement the new statistical standards on ‘goods for processing’, the following additional information has to be collected for Hong Kong:

(a) Exports and re-imports of goods for outward processing with breakdown by commodity group and by country, and

(b) Value of processing fee payment.

4.1.11 There are three different options for collecting this additional information, namely:

(c) Expanding the trade declaration documents to be reported by traders to Hong Kong Customs,

(d) Conducting an enhanced survey on outward processing trade activities, or

(e) Applying new data models and imputations.

4.1.12 In comparison with ‘goods for processing’, the implementation of the new standards on ‘merchanting’ is relatively less complicated. The additional information required can be obtained by enhancing the existing survey on trade in services. In the existing survey, data on the sales of goods and cost of goods sold for ‘merchanting’ are collected to compile the gross margin, i.e. value of merchanting services provided, which is the difference between the two components. However, the existing survey can only provide annual data and cannot simply be taken as the data source for compiling quarterly BoP statistics. Moreover, the existing survey must also be enhanced to provide data breakdown of “merchanting” by commodity group and by country.

4.1.13 The pros and cons of each of the three options are elaborated below.

B. Expanding the trade declaration documents

4.1.14 Any person in Hong Kong who imports or exports any article other than an exempted article is required to lodge with the Commissioner of Customs and Excise an accurate and complete import or export declaration within 14 days after the importation or exportation of the article under the Import and Export (Registration) Regulations. Currently, the volume of trade declarations reported by traders each quarter is more than 4.5 million. In order to provide the new data for ‘goods for processing’, additional items will have to be collected in each trade declaration.

4.1.15 The benefit of this option is that it can provide all additional statistical information required under the new standards. Reliable and timely statistics of exports and imports of ‘goods for processing’ can be compiled. Moreover, detailed breakdown by commodity group, country of origin and destination can also be compiled. Nevertheless, this method requires a huge amount of resources for processing the new data collected from a large number of declarations each quarter. Besides, it imposes additional reporting burden on traders. In general, past experiences showed that traders and legislators would have a great concern on any expansion of the data requirements on the trade declaration documents since this would make the declaration procedures more costly and time-consuming. Hence, considerable resistance to the expansion of trade declaration is expected from the stakeholders who may see this as a move against further trade facilitation.
C. Conducting an enhanced survey on outward processing trade activities

4.1.16 The existing survey covers only the outward processing activities in the Mainland of China when some contractual arrangement for subsequent re-importation of processed goods back into Hong Kong exists. Processing in areas other than the Mainland of China is not covered in the present survey since it is considered that this is relatively insignificant. Statistics on outward processing trade are available only with a time lag of around 3 months after the reference period. The sample size of the existing survey is about 7,200 trade declarations per quarter. In the existing survey, reporting burden imposed on traders is kept to a minimum. Only information on processing activities is collected from traders selected in the survey whereas information on value of goods involved are extracted directly from the selected trade declarations. In order to fulfil the new international statistical standards, several major enhancements to the survey are required. These include the following:

(a) Expanding the survey to cover ‘Goods for Processing’ in places other than the Mainland of China, e.g. Vietnam,

(b) Expanding the survey to cover processing activities in the Mainland when there is no contractual arrangement for subsequent re-importation of processed goods back into Hong Kong,

(c) Reducing the time lag of statistics on processing in order to support the timely release of GDP and BoP statistics, and

(d) Increasing the sample size substantially to support the detailed data breakdown required.

4.1.17 The benefit of this option is that it can provide all the additional data required for compiling statistics on trade aggregates under the new standards. Moreover, less resistance is expected from traders because additional reporting burden will not be imposed on all of them but only on those selected in the survey. Nevertheless, this approach can only reasonably support a limited breakdown of statistics by commodity group and by country, and the extent to which the time lag of statistics can be further reduced is rather limited even if substantial enhancement is made to the existing survey.

D. Applying new data models and imputations

4.1.18 Based on the existing information, new data models and imputation procedures can be constructed to provide additional data at the aggregate level. An obvious benefit of this option is that no additional reporting burden will be imposed on traders. However, this approach cannot provide reasonably accurate breakdown of processing trade by commodity group and by country, due to the lack of sufficiently detailed information.

4.1.19 The data models will be designed to produce estimates on the proportion of goods related to processing within the overall trading activities, taking into account historical trends and relevant proxy indicators. Regression of relevant historical trends on a set of explanatory variables and proxy indicators, with appropriate time lag structures, will provide workable data models for producing timely data at the aggregate level. One of the examples of an explanatory variable to be included in such model for testing may be imports of raw materials into Hong Kong from various source markets, since these raw materials would need to be imported into Hong Kong before they are delivered to the Mainland of China for outward processing.

4.1.20 These data models, with appropriate input assumptions, will also produce estimates on processing fee for inclusion into trade in services statistics. Benchmark ratios of processing fee to the value of goods involved by commodity group and by country can...
be collected from benchmark surveys once every few years to supplement the model estimates.

E. Pragmatic modular approach for implementation

4.1.21 Since each of the three options has its own pros and cons, it is quite clear that a pragmatic approach to implement the new standards is to flexibly combine the three options at different stages of implementation, and for different levels of statistical detail. First, new data models will be constructed to produce preliminary estimates of trade aggregates under the new standards for supporting timely compilation of major macroeconomic aggregates, such as GDP and BoP statistics. These aggregate statistics must be released with short time lags, and it is not practical to incorporate current information on processing trade collected from the enhanced survey into the preliminary aggregates when they are released for the first time.

4.1.22 Second, the existing survey on outward processing trade activities will be enhanced to collect additional information for compiling external trade statistics under the new standards with broad breakdown by commodity group and by country. Such information will be available only with longer time lag but it can be used to revise the preliminary estimates of the trade aggregates produced by the data models, and to support more in-depth analysis. The enhanced survey will also provide the information necessary for regularly updating the parameters of the data models used for estimating the preliminary trade aggregates.

4.1.23 As a longer term development, it is our target to produce external trade statistics under the new standards with comprehensive breakdown by commodity group and by country. Among the various options, the possibility of collecting detailed information through expanding the trade declaration documents will also be explored. It is obvious that the most fundamental problem is obtaining source data of reasonable accuracy. In view of the significant resistance from traders and the high cost involved, a strong policy support of the initiative from Hong Kong SAR Government is essential. In order to solicit the support and co-operation of traders and the business community, a long-term strategy has to be developed involving the various parties concerned.

4.1.24 A study will be conducted to examine the cost-effectiveness and technical details of various options, and to draw up a detailed implementation plan. The study will also cover two major tasks:

(a) Consulting key stakeholders in Hong Kong SAR Government and in the private sector to assess their views on each of the options, and

(b) Conducting research and consultation on international best practices in data collection, compilation and dissemination of statistics on ‘goods for processing’ and ‘merchanting’.

F. Presentation and interpretation of the new statistics

4.1.25 Under the new statistical standards, the value of external trade in goods shown under national accounts will be significantly different from that shown under merchandise trade statistics since the latter statistics are not compiled based on the change-of-ownership principle. To reduce confusion among data users, the following alternative dissemination practices will be carefully considered:

(a) **Releasing two different figures on trade in goods with appropriate bridge tables to explain the gaps**

4.1.26 The benefit of this option is that it supports the specific needs of different data users and allows them to choose the figure of trade in goods, either from national accounts
or from merchandise trade statistics that best meets their need. The bridge tables, which explain the differences between the two set of figures on trade in goods would help to reduce the confusion of data users.

(b) **Releasing only one single figure for trade in goods and services in national accounts**

4.1.27 The benefit of this option is that it avoids the publication of two different set of statistics on trade in goods, one under national accounts and one under merchandise trade. Given that the distinction between goods and services is increasingly blurred, an increasing number of users may accept that they have to perform analysis by pooling trade in goods and services together. However, there are always some data users who need to have breakdowns in goods and services, and their statistical needs must also be met. Hence, this option will not be adopted without first obtaining strong support and consent from major data users.

4.1.28 Views of major data users on these alternative dissemination practices will be sought. In particular, the following activities will be organised for different target groups of data users:

(a) Organise talks for the media to explain the rationale behind the new international statistical standards,

(b) Organise discussion sessions with analysts and academics to capture their responses and comments, and

(c) Arrange visits to major data users in both public and private sectors to consult their views.

4.1.29 It will also be helpful to provide illustrative examples on the appropriate applications of the two set of figures on trade in goods. For example, the figures of trade in goods under national accounts should be adopted for macroeconomic analysis, such as forecasting overall economic growth, whereas the figures of trade in goods under merchandise trade statistics should be adopted for analysis relating to physical handling of goods flow, such as forecasting demand on port facilities. Educational pamphlets elaborating on these applications will be prepared and distributed to data users.
CHAPTER 5

Merchanting

I. Introduction

5.1 The statistical treatment for merchanting is defined in Balance of Payments Manual, fifth edition (BPM5) as follows (International Monetary Fund’s Balance of Payments Manual, Fifth edition 1993 par 262): 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...

5.2 The recording requirements for merchanting activities are remarkably straightforward. Merchanting is calculated as the value of the goods sold (estimated at basic prices) less the cost of purchasing these same goods at that point in time. In the BPM5 and in the System of National Accounts 1993 (1993 SNA) this merchanting margin is classified as the export of merchanting services. However, as most compilers will know, the detection and regular recording of these activities is extremely challenging for the country where the merchant is resident. This is because the goods in question never cross the frontier of the country where the merchant is resident and are therefore not covered by the official trade statistics there.

5.3 The value of merchanting transactions reported in the IMF Balance of Payments (BoP) for 2006 amounted to $40 billion and five economies accounted for about three quarters of this viz. Ireland, Belgium, Finland, Sweden and Switzerland. However, as merchanting is reported on a net basis the gross value of the transactions in the underlying products may possibly amount to about $60 billion credit (exports) and $100 billion debits (imports) using the gross merchanting flows for Ireland as a basis for this estimation. Moreover, the absence of any reporting of merchanting activity for economies such as United States, Japan, Netherlands, Hong Kong and Singapore suggest that there is a considerable under reporting of merchanting globally.

5.4 In this chapter the recommendations of System of National Accounts 2008 (2008 SNA) and BPM6 for merchanting of goods will be outlined. Some guidance on identification of merchanting activities is also included given the likely significant under reporting of this activity globally. In addition, merchanting in its broadest sense is discussed from the perspective of the Central Statistical Office (CSO) in Ireland where the phenomenon of merchanting of services is significant (see Annex 5.5).

II. Background

5.5 No clear definitions, based on the economic nature, are provided for “merchanting” and “merchant” in the BPM5 and 1993 SNA and other current international standards. For example, in the BPM5 treatment as outlined above, the difference between the value of goods when acquired and the value when sold is recorded as the value of merchanting services provided (see Diagram 5.1 below for an illustration of a typical merchanting transaction).
However, there is a discussion on the case of commodity arbitrage (Balance of Payments Textbook paragraph 361) and the description of 1993 SNA on this issue (paragraph 14.60) is, along the same lines as BPM5. In addition the Balance of Payments Compilation Guide (paragraphs 138-139), Balance of Payments Textbook paragraphs 189-194, 361-362) and Manual on Statistics of International Trade in Services (paragraph 3.123, Box 6) deal with the treatment of merchanting. Nevertheless, various kinds of activities are included without any distinction into the current definition of merchanting. They include:

(a) Transactions resulting from global manufacturing,
(b) Global wholesaling services (and some retailing services),
(c) Commodity arbitrage (dealing).

In addition, holding gains and losses are also included as part of services.

However, the economic nature of the transactors/transactions does in fact differ and can be distinguished as follows:

A. Global manufacturing

Many transactions between enterprises within a multinational enterprise (MNE) may fall within the definition of merchanting. In reality, the merchanting service is a return for marketing, research and development, financing, process management, etc. provided by an enterprise that does not physically handle the goods. Although, the Manual on Statistics of International Trade in Services, when discussing merchanting (see paragraph 3.123 Box 6) which speaks of commodity arbitrage and wholesale trading but not transactions arising from global manufacturing. Merchanting activities also include aspects of global
manufacturing (see Annex 5.1 for an example) where goods are sourced from one non-resident affiliate (the manufacturer) and then sold on to another non-resident affiliate. This activity results in international transactions between resident and foreign affiliates which fall under the heading of merchanting for the resident affiliate. See Diagram 5.2 for an illustration of global manufacturing:

Diagram 5.2
Merchanting - global manufacturing

Merchant in country A is part of MNE, engages affiliate in country B to produce a product and deliver it to customer in country D. Affiliate in country B sends raw materials for further processing to affiliate in country C and pays C the processing fee also. When the processed good is available it is shipped from country C to country D.

B. Global Wholesale/Retail

5.10 The treatment of merchanting also covers international wholesale/retail activities where the merchant is earning a margin by purchasing wholesale from one non-resident supplier and selling to another non-resident retailer/distributor.

C. Commodity Trading

5.11 These activities aim to earn profits from the difference between purchased price and resale price of the relevant goods. Historically, merchanting involved transactions in goods associated with commodity trading. However, transactions in the underlying
commodities have in many cases been replaced by transactions in derivatives (options, futures, swaps etc.), to achieve the same trading objectives.

III. Statistical treatment recommended in international standards

5.12 The reporting of merchanting type activities has been discussed in all versions of the BPM since the first edition in the late 1940s. Over time, as both the nature of globalised business activities has broadened and as the detailed methodology for the BoP Current Account has expanded, more and more activities have been reported under the heading of merchanting.

5.13 In the five previous editions of the BPM, we see merchanting activities initially classified under "transactions in merchandise abroad" (IMF Balance of Payments Manual, Second edition, January 1950 p19 Table II(c)) and subsequently under "intermediary trade" (IMF Balance of Payments Manual, Third edition, July 1961 paragraph 472, 137,157) and by the 5th edition there is a separate heading within Services for Business Services including merchanting. The recommended treatment in the various editions of the IMF Balance of Payments manual are summarised in table 5.1.

Table 5.1
Treatment of merchanting activities in the IMF Balance of Payments manuals

<table>
<thead>
<tr>
<th>Edition of the Manual</th>
<th>Required recording</th>
<th>Classified in the BPM Methodology</th>
</tr>
</thead>
<tbody>
<tr>
<td>BPM 1st Edition - 1948</td>
<td>Record net under Merchandise</td>
<td>Other Transactions in Merchandise</td>
</tr>
<tr>
<td>BPM 2nd Edition - 1950</td>
<td>Record gross under Merchandise</td>
<td>Other Transactions in Merchandise</td>
</tr>
<tr>
<td>BPM 3rd Edition - 1961</td>
<td>Record net under Merchandise</td>
<td>Merchandise transactions abroad</td>
</tr>
<tr>
<td>BPM 5th Edition - 1993</td>
<td>Record net under Services Business Services</td>
<td></td>
</tr>
<tr>
<td>BPM 6th Edition - 2009</td>
<td>Record gross under Goods (imports recorded as negative exports) Goods under Merchanting</td>
<td></td>
</tr>
</tbody>
</table>

5.14 For national accounts, the treatment of merchanting follows the same approach as that of the BPM and is outlined in 1993 SNA paragraph 14.60 as follows:...‘the third exception (to the change of ownership principle) is one in which a change of ownership may occur but is ignored in the accounts. The exception relates to merchants or commodity dealers who buy commodities or other goods from non-residents and then sell them again to non-residents within the same accounting period without the commodities actually entering the economy in which the merchants are resident. The difference between the receipts and the sales of such dealers is treated as measuring the value of the services they provide and recorded under exports or imports of services...’
5.15 While not mentioned explicitly in previous SNA manuals, the treatment to be followed for merchanting activities is a generalised one for all cross border transactions in goods and services. For example the 1968 SNA paragraph 6.138 says "the scheme of classification (of 1968 SNA) is also aligned as much as is possible with the classification of goods and services in the third edition of Balance of Payments manual of the International Monetary Fund".

5.16 It can be seen that the thinking behind the instructions in the BPM for the recording of merchanting from BPM1 to BPM5 have changed from net to gross recording and back again to net. Moreover, it is surprising to see that the motivation in BPM6 and 2008 SNA for the required recording of merchanting in the goods account rather than the services account of the BOP is in line with the treatment in BPM3 where merchanting was to be recorded under the goods heading so that the net balance on merchanting "must be added to exports to make world exports equal world imports" (IMF Balance of Payments Manual, Third Edition 1961 p. 43 par.(4)). Subsequent editions seem to be more preoccupied with the recognition of the services aspects of merchanting activities at the expense of global additivity within the goods account. This is reflected in the instructions to record merchanting under services in BPM5.

A. International discussions on the 1993 SNA and BPM5 treatment of merchanting

5.17 Merchanting has been extensively discussed in various fora as part of the drafting of 2008 SNA and BPM6. These include the Advisory Expert Group on National Accounts (AEG), the Intersecretariat Working Group on National Accounts (ISWGNA), the Balance of Payments Technical Expert Group (BOPTEG), the IMF Balance of Payments Committee (BOPCOM) and the Interagency Task Force on Statistics of International Trade in Services (ITFSITS).

5.18 The discussions have tended to focus exclusively on the merchanting of goods and in this context they have highlighted a number of difficulties caused by the current treatment of merchanting. These difficulties can be summarised as follows:

(a) The recording of merchanting transactions is asymmetrical, i.e., the merchanting margin is recorded under services for the economy in which the merchant is resident, whereas the non-resident counterparty compilers record the related gross transactions in the goods account for both the exports and imports. This method of recording merchanting activities results in a global imbalance in the goods account and creates an asymmetry. See Annex 5.2 (Taken from: Hidetoshi Takeda Merchanting, Update of the 1993 SNA - Issue No.41 Issues paper for the July 2005 AEG meeting) for a full discussion of this issue.

(b) The treatment is inconsistent with inventories data and balance sheets both for the merchant and for the supplier. Currently an actual change of legal and economic ownership occurs but is imputed as not occurring, the treatment results in data on assets that are inconsistent with the enterprise accounts and with balance sheets that show the actual positions of the merchant. As these stocks may not be recorded in the value of inventories in the national accounts as owned by the resident merchant, in such a scenario the inventories may be without an owner. Although there is a clear treatment to avoid such a situation arising in both 1993 SNA (UN System of National Accounts 1993 par. 14.60 ...‘.If however, the goods are not resold within the same accounting period, the purchases have to be recorded as imports of goods which are temporarily held as inventory..’.) and BPM5 (Balance of Payments Manual, Fifth edition 1993 par 262 & par 213 ‘....if the commodities are not resold by the merchant in the same accounting period, an import of goods is
recorded in the first period and a negative import entry is recorded in the later period’), the actual implementation of these particular guidelines is extremely problematic for the compiler resulting in the possibility as already stated of inventories not being attributed to any owner.

(c) The treatment is also inconsistent with financial account transactions. The trader pays a gross amount for the goods to one country, and receives gross payment from another, and both of these gross transactions are recorded in the financial account.

(d) The valuation principles are not consistent with supply and use tables. Ignoring taxes, the supply and use tables are valued at either basic prices (i.e., goods transactions and margins are shown separately) or purchasers’ prices (i.e., goods transactions valued at basic prices plus corresponding margins). The existing treatment of merchanting is not consistent with either pricing approaches as the merchants’ margin is recorded under wholesale trade with no corresponding goods transaction. Consequently the treatment also undermines the relationship between distribution industries and the corresponding goods transactions as the latter are omitted.

(e) All other goods transactions in the balance of payments are recorded gross including any retail and wholesale margins arising up to the national frontier and not simply reduced to showing these margins alone.

(f) No clear definitions, based on the economic nature, are provided for “merchanting” and “merchant” in the BPM5 and 1993 SNA and other current international standards.

B. Merchanting in BPM6 and 2008 SNA

5.19 The revised treatment for merchanting in the 2008 SNA and BPM6 can be summarised as follows:

(a) The acquisition of goods by merchants is to be shown under goods as a negative export of the economy of the merchant.

(b) The sale of goods is shown under goods sold under merchanting as a positive export from the economy of the merchant.

(c) The difference between sales over purchases of merchanted goods is shown as the item "net exports of goods under merchanting." This item includes merchants’ margins, holding gains and losses and changes in inventories of goods under merchanting. As a result of losses or increases in inventories, net exports of goods under merchanting may be negative in some cases.

(d) Merchanting entries are valued at transaction prices as agreed by the parties, not "free on board" (FOB) prices.

(e) In the supply and use tables the difference between the sales and purchases of merchanted goods appears as the production of a service in the merchant’s economy, consistent with margins applied to domestically produced goods.

5.20 The new treatment can be summarised as requiring merchanting transactions in goods to be recorded in the goods account rather than the services account in the BOP and the national accounts. The recording requirement is gross, however all recording both of purchase and sale is on the credit (export) side with purchases (imports) being recorded as negative exports. In the supply and use tables the net surplus earned by the merchant is shown as a service.
C. Impact of BPM6 and 2008 SNA

5.21 The extent to which the new guidelines resolve the difficulties associated with the recording regime in BPM5 and 1993 SNA for merchanting of goods is now discussed, item by item:

(a) The recording of merchanting transactions is asymmetrical. If we assume that all merchanting transactions are in the goods account, the changed reporting requirements would help the overall balance of the goods account. This is illustrated in Annex 5.2 where we review the treatment based on the 1993 SNA approach compared to the 2008 SNA.

(b) The treatment is inconsistent with inventories data and balance sheets both for the merchant and for supplier. If we consider the bullet point 5.19 (c) above we see that... The difference between sales over purchases of merchanting is shown as the item "net exports of goods under merchanting." This item includes merchants' margins, holding gains and losses and changes in inventories of goods under merchanting. The new standards should resolve the difficulties with inventories and holding gains (see Annexes 5.3 and 5.4). However, it should be noted that by convention holding gains and losses are excluded from trade margins in national accounts. In practice, particularly in the case of merchanting where data is scarce, the manual foresees that data sources may not allow the separation out of all holding gains and losses.

(c) The treatment is also inconsistent with financial account transactions. The trader pays a gross amount for the goods to one country, then receives gross payment from another, and these gross transactions are recorded in the financial account. This difficulty is resolved by the gross treatment within the goods (exported) account.

(d) The valuation principles are not consistent with supply and use tables. The inclusion of the wholesale/retail margin and the holding gains/losses accruing while in inventory, in the gross value of exports by the merchant is consistent with the measurement of supply and use of these margins in the SNA and the BPM.

(e) All other goods transactions in the balance of payments are shown including any retail and wholesale margins arising up to the international boundary, not with these margins separated. At the individual country level this drawback remains and it is difficult to see how this issue could be resolved while at the same time attributing the surplus to the country of the merchant.

(f) No clear definitions, based on the economic nature, are provided for "merchanting" and "merchant" in the BPM5 and 1993 SNA and other current international standards. The BPM6 contains a discussion on the economic nature of merchanting.

IV. Proposals for operational treatment in the accounts - identification and recording of merchanting activities

5.22 According to the IMF there is a strong possibility that the level of merchanting activity is under reported globally. It is easy to understand that such a situation could arise given the nature of merchanting, where the goods being merchanted do not cross the border of the merchant. The objective for compilers is therefore firstly to identify merchanting activities and then to establish a system of regular reporting through business surveys. So how can these activities be captured in the balance of payments statistics and by extension included in the national accounts?

5.23 Merchanting activities can be identified in a number of ways:
(a) First, when an entity or enterprise is solely involved in merchanting it normally has a relatively small number of persons employed while at the same time having substantial turnover and therefore turnover per person tends to be very large. In such cases a national statistical institute (NSI) could use its Central Business Register (CBR) to identify these cases using ratio analysis.

(b) Multinational enterprises (MNE) with affiliates are sometimes engaged in merchanting activities in conjunction with the production of other goods or services. These merchanting activities can be captured through a specific question on the Balance of Payments Surveys of International Trade in Services and Royalties on sales and purchases of merchanted goods.

(c) The analysis of administrative data such as corporation tax records from the tax authorities or dividend tax payments can also be used to identify merchanting activities. Again, in these cases firms having large taxable profits with no substantial physical presence in the economy i.e. typical characteristics for merchants, that need to be identified.

(d) An awareness of MNE practices and recording conventions is also helpful in identifying these activities. For example merchanting is also called "Drop Shipping" or "Virtual Sales" by these companies. In addition we have found that an enterprise name ending in "EMEA" which is a short form for "Europe, Middle East and Africa" can sometimes be involved in merchanting.

(e) Another key way of indentifying Merchanting activities arises when company visits are organised by the NSI. As part of the preparation and the recording of these meetings with MNEs, statistical staff need to retain an awareness of the possibility that merchanting may be carried out by the MNE they are visiting and that questions on this activity are addressed to the enterprise.

5.24 In general the detection of merchanting activities requires that the staff of the business services survey areas and national accounts and BOP compilers is aware of the phenomenon and also the likely scenarios where Merchanting might occur. It should be clear in this context that the term "merchanting" is generally not used by MNEs or any enterprise which adds another dimension to the detection of these activities.

5.25 As regards the recording of merchanting in national accounts, as mentioned earlier, the recording of trade margins, such as the merchanting margin, require that holding gains and losses are excluded from the calculation of this margin. In practice, this exclusion is extremely difficult to do, merchanting activities are recorded in BoP statistics and sometimes by a separate institution i.e. national central bank and it is an almost impossible task to exclude these gains/losses if they are not already excluded. This is particularly true as the merchanting activities recorded will be on an aggregate basis covering a myriad of transactions both at the company and an aggregate level.

5.26 The recording of merchanting activities is detailed in the Annexes 5.1 to 5.4, however the recording for national accounts purposes needs to be discussed from a practical perspective:

(a) On the expenditure side of the national accounts in most cases the merchanting margin should have the same impact as in the BoP i.e. the net export of goods should be identical in both sets of accounts. However, when we come to transactions that straddle periods, what is required is that the initial transaction i.e. the negative export is also recorded as an increase in inventories, otherwise GDP is reduced by the purchase of the goods. In period two the sale of the goods is recorded under exports and this is largely offset by a reduction in inventories leaving the net addition to GDP of the margin earned on the transaction.
(b) Should there be a fall (or rise) in the price of the goods that are being merchant in these periods the recording requirements are complicated because of these effects. In this case the recording of the merchanting margin, changes in inventories and net exports of goods may result in some inconsistency between the expenditure and output accounts of GDP. This would be due to the absence of the detailed holding gains/losses associated with the merchanting transactions.

V. Recommended future work on the issue - extension of the treatment to cover merchanting of services

5.27 The new standards, which relate to the recording of merchanting (of goods) activities in the goods account of the BoP and national accounts should resolve most of the existing problems associated with statistical recording of this type of merchanting activity.

5.28 However, to the extent that merchanting activities relate to the merchanting of services, the new guidelines may create some new difficulties. Under the BPM6 guidelines, there will no longer be a services category labelled "merchanting." If services are sourced and delivered in a merchanting type arrangement these services transactions must be recorded gross in the relevant services category. In this context it should be noted that merchanting of services is not a new idea and as far back as BPM3 we see a reference to merchanting type activities involving services as can be seen in the following quote: ‘...the compiling country's residents may carry out international transactions in goods and services that are entered only on a net basis. Such transactions involve the purchase of goods or services in one foreign country and the sale or granting of them to another foreign country...' (IMF Balance of Payments Manual, Third edition, July 1961 Par. 472)

5.29 Moreover, merchanting of services and services type activities in general are an area where considerable growth in activity has already been observed. In a recent paper on "Transportation Costs and International Trade in the Second Era of Globalisation," the author David Hummels develops this point in the following quote (Hummels, David 2007 Transportation Costs and International Trade in the Second Era of Globalisation in Journal of Economic Perspectives Vol 23 Number 3 Summer 2007, pp131 - 154): ‘...There is perhaps a third era in cross border trade unfolding even now, again driven by rapid improvements in a technology for connecting people across great distances. Clearly the telecommunication and internet revolution has already affected international integration, leading to a growing rate of transformation and technology outsourcing and in migration of highly skilled professionals. The impact of these changes and the extent to which they displace older forms of integration bear close watching in the years to come.’

5.30 As part of this so called third era of globalisation, there has been an explosion in the merchanting of services through outsourcing enabled by innovations in telecommunications and web enabled (internet) services. Although BPM6 does include reference to the merchanting of services. Paragraph 10.160 says:

‘Business and other services such as transport, construction computing may be subcontracted. This arrangement may be called "outsourcing." For example a specialist service arranger may be paid to provide back-office functions for a customer, which the service arranger subcontracts to another contractor. Thus, subcontracting is similar in some ways to merchanting of goods as the services are purchased and resold... "Service merchanting" of this kind is an important activity in some economies...’

5.31 Accordingly, the requirement is for a gross recording approach for these services, although it does allow the possibility of net data being provided on a supplementary basis.
So the BPM6 recognises the issue of merchanting of services but there is no
distinct treatment for such transactions in the new manual. The scale of the gross flows
involved in this type of merchanting activity, at least for the countries identified earlier in
this chapter do seem to warrant a net treatment under a separate classification in business
services.

VI. Conclusion

BPM6 and 2008 SNA guidelines for the recording of merchanting activities
address the shortcomings in the treatment of these activities in BPM5 and by extension in
1993 SNA. These shortcomings relate to the global additivity of the goods account and the
treatment of inventories and holding gains and losses. BPM6 also recognises the issue of
merchanting of services and its recording in the balance of payments. However, the
recommended approach for the "merchanting of services" is a gross treatment under the
relevant services category, the manual goes on to allow for a net presentation of these
services related activities on a supplementary basis. This recommendation goes some way
towards recognising the impact of globalisation and the consequent increase in the
importance of telecommunications and web enabled (internet)services and the impact that
these developments will have on trade in services in general but also on the merchanting of
services.

VII. References

Central Statistics Office Ireland (CSO), Balance of Payments Statistics, various
CSO, National Income and Expenditure, various
European System of National Accounts (ESA) 1993
Fitzpatrick John, The Irish approach towards treatment of merchanting and related
transactions, Prepared for the joint EFTA/UNECE/SSCU Seminar "Economic
Gilpin Robert, 2001 Global Political Economy, Understanding the International Economic
Order Princeton University Press
Hummels, David 2007 Transportation Costs and International Trade in the Second Era of
Globalisation in Journal of Economic Perspectives Vol 23 Number 3 Summer 2007, pp131
– 154
(Draft Sixth Edition of the) IMF Balance of Payments and International Investment
IMF Balance of Payments Textbook 1996
Issue 41 – Merchanting (Final draft) UN Statistics website for revision of SNA 93 -
January 2008
Takeda Hidetoshi, Merchanting, Update of the 1993 SNA - Issue No.41 Issues paper for
the July 2005 AEG meeting
Organisation for Economic Co-operation and Development (OECD) 2002, Manual on
Statistics of International Trade in Services
United Nations, System of National Accounts 1993
Annex 5.1

Merchanting - global manufacturing

5.1.1 BPM5, par. 199 and revised proposals in BPM6, par 10.63 are similar and differ on where the merchanting item is recorded i.e. goods or services

5.1.2 A group company resident in country A is contracted to deliver a finished product to a customer in country D. An affiliate of the company resident in country B supplies the raw materials to another affiliate in country C (goods for processing) who completes the production of this product required by the customer in country D. Ownership of the raw materials remains with B and B retains ownership of the finished product until it is exported to D. The merchanting element of these transactions comes into play once the good is exported the ownership passes to the company in country A and then passes to the customer following the sale of the product.

Diagram 5.1.1
Merchanting activities within global manufacturing

* BPM5 par.199 for current treatment and for proposed treatment see BPM6 draft presented at ECB Frankfurt on January 2008 par 10.60 -10.63
### Table 5.1.1
**Current recording and proposed recording BPM6 and 2008 SNA**

<table>
<thead>
<tr>
<th>Country</th>
<th>Transaction Type</th>
<th>1993 SNA / BPM5 treatment</th>
<th>2008 SNA / BPM6 treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Services</td>
<td>20</td>
<td>A</td>
</tr>
<tr>
<td></td>
<td>Merchanting</td>
<td></td>
<td>Goods (under merchanting)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>-80</td>
</tr>
<tr>
<td></td>
<td>Cash &amp; Deposits</td>
<td>80 100</td>
<td>Cash &amp; deposits 80 100</td>
</tr>
<tr>
<td>B</td>
<td>Goods</td>
<td>80</td>
<td>B</td>
</tr>
<tr>
<td></td>
<td>Exports</td>
<td></td>
<td>Goods exports</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>Services</td>
<td></td>
<td>Manufacturing services</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>on physical inputs</td>
</tr>
<tr>
<td></td>
<td>Goods under</td>
<td></td>
<td>owned by others</td>
</tr>
<tr>
<td></td>
<td>merchanting and</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>other trade related</td>
<td></td>
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</tr>
<tr>
<td></td>
<td>Cash &amp; Deposits</td>
<td>30 80</td>
<td>Cash &amp; deposits 30 80</td>
</tr>
<tr>
<td>C</td>
<td>Services</td>
<td>30</td>
<td>C</td>
</tr>
<tr>
<td></td>
<td>Goods under</td>
<td></td>
<td>Manufacturing Services</td>
</tr>
<tr>
<td></td>
<td>merchanting and</td>
<td></td>
<td>on physical inputs</td>
</tr>
<tr>
<td></td>
<td>other trade related</td>
<td></td>
<td>owned by others</td>
</tr>
<tr>
<td></td>
<td>Cash &amp; Deposits</td>
<td>30</td>
<td>Cash &amp; deposits 30</td>
</tr>
<tr>
<td>D</td>
<td>Goods</td>
<td>100</td>
<td>D</td>
</tr>
<tr>
<td></td>
<td>Cash &amp; Deposits</td>
<td>100</td>
<td>Goods Cash &amp; Deposits</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>100</td>
</tr>
<tr>
<td>Global balance</td>
<td>Services</td>
<td>50 30</td>
<td>Global balance Goods</td>
</tr>
<tr>
<td></td>
<td>merchanting</td>
<td></td>
<td>Of which Goods under</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>merchanting Services</td>
</tr>
<tr>
<td></td>
<td>Goods</td>
<td>80 100</td>
<td>Services 30 30</td>
</tr>
<tr>
<td></td>
<td>Cash &amp; Deposits</td>
<td>210 210</td>
<td>Cash &amp; Deposits 210 210</td>
</tr>
</tbody>
</table>
Annex 5.2

Merchanting of goods – 1993 SNA and BPM5 practice versus new proposals of BPM6 and 2008 SNA

5.2.1 The following example illustrates the basic principles of the present and proposed treatments. All transactions occur within a recording period, with the goods physically moving from country B to country C directly, and not entering into country A. It is assumed that all transactions are settled by currency and deposits.

- Value of goods purchased by a resident of country A’ from a resident of B’ = 80
- Value of goods A’ resells to a resident of C’ = 100

Diagram 5.2.1
Merchanting

---

27 Taken from: Hidetoshi Takeda Merchanting, Update of the 1993 SNA - Issue No.41 Issues paper for the July 2005 AEG meeting.
Table 5.2.1
Present treatment and proposed recording BPM6 and 2008 SNA

<table>
<thead>
<tr>
<th></th>
<th>1993 SNA / BPM5 treatment</th>
<th>2008 SNA / BPM6 treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Credit</td>
<td>Debit</td>
</tr>
<tr>
<td><strong>Country A</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Services:</td>
<td>20</td>
<td>20</td>
</tr>
<tr>
<td>Merchanting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Currency &amp; deposits</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Country B</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goods</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>Currency &amp; deposits</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Country C</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goods</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Currency &amp; deposits</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

*Global balance*

<table>
<thead>
<tr>
<th></th>
<th>1993 SNA / BPM5 treatment</th>
<th>2008 SNA / BPM6 treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Credit</td>
<td>Debit</td>
</tr>
<tr>
<td>Goods</td>
<td>80</td>
<td>100</td>
</tr>
<tr>
<td>Services:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Merchanting</td>
<td>20</td>
<td>100</td>
</tr>
<tr>
<td>Currency &amp; deposits</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>
Annex 5.3

Holding gains or losses (including changes in inventories)\textsuperscript{28}

5.3.1 This case treats holding losses; the recording principles are the same for a holding gain.

5.3.2 The following example illustrates the principles of the present and proposed treatments if holding gains and losses occur. Before A’ resells the goods to B’, the price decreases by up to 30. All transactions occur within a recording period, with the goods physically moving from country B to country C directly, and not entering into country A. It is assumed that all transactions are settled by currency and deposits. An analogous situation emerges when the purchase of goods occurs in period t and the sale of these goods takes place in period t+1 i.e. in period t we have negative exports and also in the national accounts an increase in stocks is recorded. In period t+1 positive exports are recorded in the goods account and a reduction in stocks in the national accounts.

- Value of goods purchased by a resident of country A’ from a resident of B’ = 80
- Value of goods A’ resells to a resident of C’ = 50

Diagram 5.3.1

Merchanting (holding gains and losses)

\textsuperscript{28} Taken from: Hidetoshi Takeda Merchanting, Update of the 1993 SNA - Issue No. Issues paper for the July 2005 AEG meeting
Table 5.3.1
Present treatment and proposed recording BPM6 and 2008 SNA

<table>
<thead>
<tr>
<th>Country A</th>
<th>1993 SNA/BPM5 treatment</th>
<th>2008 SNA/BPM6 treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Credit</td>
<td>Debit</td>
</tr>
<tr>
<td>Services:</td>
<td>-30</td>
<td></td>
</tr>
<tr>
<td>Merchanting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Currency &amp; deposits</td>
<td>30</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country B</th>
<th>1993 SNA/BPM5 treatment</th>
<th>2008 SNA/BPM6 treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Credit</td>
<td>Debit</td>
</tr>
<tr>
<td>Goods</td>
<td>80</td>
<td>80</td>
</tr>
<tr>
<td>Currency &amp; deposits</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Country C</th>
<th>1993 SNA/BPM5 treatment</th>
<th>2008 SNA/BPM6 treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Credit</td>
<td>Debit</td>
</tr>
<tr>
<td>Goods</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td>Currency &amp; deposits</td>
<td>50</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Global balance</th>
<th>1993 SNA/BPM5 treatment</th>
<th>2008 SNA/BPM6 treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goods</td>
<td>80 50</td>
<td></td>
</tr>
<tr>
<td>Services:</td>
<td>-30</td>
<td></td>
</tr>
<tr>
<td>Merchanting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Currency &amp; deposits</td>
<td>80 80</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Annex 5.4

Changes in inventories - transactions that straddle recording periods

5.4.1 The following example illustrates the principles of the present and proposed treatments if transactions straddle the recording period. The value of the transactions is the same as in the basic case. However, resident of A purchases from the resident of B in time \( t \) and resells the goods to a resident of C in time \( (t+1) \). Goods physically move from country B to country C directly, and not entering into country A. It is assumed that all transactions are settled by currency and deposits.

Diagram 5.4.1
Merchanting (when transactions straddle the recording period)

<table>
<thead>
<tr>
<th>Table 5.4.1</th>
<th>Present treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td>( a) ) period ( t )</td>
<td>Credit</td>
</tr>
<tr>
<td><strong>Country A</strong></td>
<td>Goods 80</td>
</tr>
<tr>
<td></td>
<td>Currency &amp; deposits 80</td>
</tr>
<tr>
<td><strong>Country B</strong></td>
<td>Goods 80</td>
</tr>
<tr>
<td></td>
<td>Currency &amp; deposits 80</td>
</tr>
<tr>
<td><strong>Country C</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Global balance</strong></td>
<td>Goods 80</td>
</tr>
<tr>
<td></td>
<td>Currency &amp; deposits 80</td>
</tr>
<tr>
<td>( b) ) period ( (t+1) )</td>
<td>Credit</td>
</tr>
<tr>
<td><strong>Country A</strong></td>
<td>Goods -80</td>
</tr>
<tr>
<td></td>
<td>Services: Merchanting 20</td>
</tr>
<tr>
<td></td>
<td>Currency &amp; deposits 100</td>
</tr>
<tr>
<td><strong>Country B</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Country C</strong></td>
<td>100</td>
</tr>
<tr>
<td><strong>Global balance</strong></td>
<td>Goods 20</td>
</tr>
<tr>
<td></td>
<td>Services: Merchanting 20</td>
</tr>
<tr>
<td></td>
<td>Currency &amp; deposits 100</td>
</tr>
</tbody>
</table>
Table 5.4.2

Proposed recording BPM6 and 2008 SNA

<table>
<thead>
<tr>
<th></th>
<th>a) period t</th>
<th></th>
<th></th>
<th>b) period (t+1)</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Credit</td>
<td>Debit</td>
<td></td>
<td>Credit</td>
<td>Debit</td>
<td></td>
</tr>
<tr>
<td><strong>Country A</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>Country A</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goods under</td>
<td>-80</td>
<td></td>
<td></td>
<td>Goods under</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>merchanting</td>
<td></td>
<td></td>
<td></td>
<td>merchanting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Currency &amp; deposits</td>
<td>80</td>
<td></td>
<td></td>
<td>Currency &amp;</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>deposits</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Country B</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>Country B</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goods</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Currency &amp; deposits</td>
<td>80</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Country C</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>Country C</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goods, debit</td>
<td></td>
<td></td>
<td></td>
<td>Goods</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td>Currency &amp; deposits</td>
<td></td>
<td></td>
<td></td>
<td>debit</td>
<td>100</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Global balance</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>Global balance</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Goods</td>
<td>0</td>
<td></td>
<td></td>
<td>Goods</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>Goods under</td>
<td>-80</td>
<td></td>
<td></td>
<td>Goods under</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td>merchanting</td>
<td></td>
<td></td>
<td></td>
<td>merchanting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Currency &amp; deposits</td>
<td>80</td>
<td>80</td>
<td></td>
<td>Currency &amp;</td>
<td>100</td>
<td>100</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>deposits</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Annex 5.5

Country practice\textsuperscript{29} - the Irish approach

5.5.1 As outlined in the introduction to this chapter on merchanting (Par 5.3), Ireland is one of the five most important countries for merchanting activities on account of its highly globalised economy. However, when recording merchanting for Ireland, activities involving either the merchanting of goods together with associated services or just merchanting of services are included. This broader scope for merchanting activities is country specific treatments developed on account of the scale of these activities and also reflect the experience of the CSO in a highly globalised economy.

5.5.2 The CSO approach in compiling these statistics on merchanting activities is fundamentally based on the recommendations of the BPM5 in relation to merchanted goods. However, certain significant modifications are made where considered necessary in the interest of the clarity and understandability of the results. These modifications were initially related to the treatment of services outsourced and delivered abroad in association with the supply of goods. However, they have recently been extended to the treatment of services out-sourced and delivered abroad where goods are not involved.

5.5.3 The main reason for CSO’s adoption of this approach is to reduce the potential for statistical distortion arising from these very large transactions in both goods and services sourced and delivered abroad. Some statistical users, particularly trade associations or representatives, may be seriously misled by service export statistics which are significantly inflated where a gross recording of merchanted services is applied. It does not seem appropriate or meaningful to inflate the services exports and imports data by including such transactions, particularly when such large aggregate flows in the statistics presented are referenced against employment levels in a particular industrial activity in Ireland. In saying this, it is acknowledged that net recording by one compiler can lead to distortions or asymmetries where counterpart compilers may have no option but to record the transactions on a gross basis in their BoP statistics.

5.5.4 The treatments for outsourced services adopted by CSO and described below might be considered to be a departure from the recommendations of the international statistical standards. Moreover, while a gross treatment of outsourced services delivered to a non-resident customer may be implicit in BPM5, there appears to be no explicit discussion of such delivery of services in the Manual documentation or any explicit reference as to how the relevant transactions should be treated.

5.5.5 There are two examples set out below, the first relates to merchanting of goods and associated services and the second relates to merchanting of services only. The details are as follows:

1. Merchanting of goods and related services

5.5.6 Consider the following fictitious situation (which is a simplified version of more complicated activities and practices). A foreign direct investment enterprise located in Ireland (B) is owned by a US investor (A). B in Ireland arranges for the supply, installation

\textsuperscript{29}References to CSO treatment of merchanting is based on: The Irish approach towards treatment of merchanting and related transactions by John Fitzpatrick, Prepared for the joint EFTA/UNECE/SSCU Seminar “Economic Globalisation: A Challenge for Official Statistics” 3-6 July 2007, Kiev, Ukraine
and maintenance of goods/equipment to a number of unrelated customers (C) in the Europe, Middle East and Africa (EMEA) market, as well as the provision of staff training programmes, etc. concerning the operation of the goods/equipment. The goods and services supplied are not sourced in Ireland by B. The goods/equipment are purchased for €2 billion by B from its affiliate (E) located in Germany while the various services are purchased for €3.5 billion from another affiliate D in France. The two affiliates deliver the goods and services to the customers (C). These customers pay B a total of €6 billion for the goods (€2.2 billion) and services (€3.8 billion) they receive. The Irish trader, B, records in its accounts all payments and receipts arising from the order. Diagram 5.5.1 describes the situation.

Diagram 5.5.1
Merchanting and related transactions
5.5.7 Under the BPM5 and other international recommendations, the above transactions would (normally) be recorded in the BoP statement under service imports and exports, with, in the case of the goods element, only the net margin (€0.2 billion) being recorded as a merchanting service credit. The related service transactions would appear under services: a credit of €3.8 billion and a debit of €3.5 billion (see Table 5.5.1).

Table 5.5.1

<table>
<thead>
<tr>
<th>BOP Item</th>
<th>Credit</th>
<th>Debit</th>
<th>Net</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merchanting service</td>
<td>200</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Other services</td>
<td>3,800</td>
<td>3,500</td>
<td>300</td>
</tr>
<tr>
<td>Total</td>
<td>4,000</td>
<td>3,500</td>
<td>500</td>
</tr>
</tbody>
</table>

5.5.8 As both the goods and services delivered to the EMEA customers (C) have been sourced from and delivered by a non-resident of Ireland (i.e. a French D and a German E foreign affiliate of the Irish entity B), the CSO treats the combined transactions for goods and services described above on a net basis. It records the overall net margin of €0.5 billion as a credit (service export) under merchanting services in the ‘Services’ part of the BoP current account (see Table 5.5.2).

Table 5.5.2

<table>
<thead>
<tr>
<th>BOP Item</th>
<th>Credit</th>
<th>Debit</th>
<th>Net</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merchanting services</td>
<td>500</td>
<td>500</td>
<td></td>
</tr>
<tr>
<td>Other services</td>
<td>-</td>
<td>-</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>500</td>
<td>500</td>
<td></td>
</tr>
</tbody>
</table>

5.5.9 The new proposals for treatment of merchanting do not allow for the merchanting of services and hence Table 5.5.3 reflects what the recording of these transactions in goods and services would be for BPM6 and 2008 SNA.

Table 5.5.3

Recommended recording treatment -BPM6/ 2008 SNA

<table>
<thead>
<tr>
<th>BOP Item</th>
<th>Credit</th>
<th>Debit</th>
<th>Net</th>
</tr>
</thead>
<tbody>
<tr>
<td>Goods - merchanting</td>
<td>2200</td>
<td>-2000</td>
<td>200</td>
</tr>
<tr>
<td>Other services</td>
<td>3,800</td>
<td>3,500</td>
<td>300</td>
</tr>
<tr>
<td>Total</td>
<td>4,000</td>
<td>3,500</td>
<td>500</td>
</tr>
</tbody>
</table>

2. Merchanting of services

5.5.10 For example, an Irish resident Foreign Direct Investment Enterprise, A has EMEA customers located abroad in countries B, C and D. A purchases the software services from its parent in the US and supplies these services valued at €1,500m (€500M each) to such customers. Invoices are issued from the parent on behalf of A i.e. A essentially invoices all of the customers B, C and D for €350m each totaling €1,050m. A records all turnover and expenditure as well as the profits generated. Diagram 5.5.2 describes the situation.
Diagram 5.5.2
Treatment of receipts and expenditure of Irish FDIE for services partly provided by foreign affiliates

5.5.11 The CSO records the above transactions in its BoP statement as shown in Table 5.5.4.

Table 5.5.4
CSO, Ireland recording treatment for merchanting services

<table>
<thead>
<tr>
<th>BOP Item</th>
<th>Credit</th>
<th>Debit</th>
<th>Net</th>
</tr>
</thead>
<tbody>
<tr>
<td>Merchanting services</td>
<td>450</td>
<td>-</td>
<td>450</td>
</tr>
<tr>
<td>Profits</td>
<td>450</td>
<td>-450</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>450</td>
<td>450</td>
<td>0</td>
</tr>
</tbody>
</table>

5.5.12 The €450m recorded under merchanting services results from the netting of A's services imports of €350m paid to the U.S. parent with the services exports totalling €1500m. We assume that the operation in IE is little more than a "brass plate" and local costs approximate zero. The merchanting surplus goes entirely to profits earned and are attributed to the US parent. If we applied the proposed treatment for merchanting to this example the result would be as follows:
Table 5.5.5
BPM6/2008 SNA recording treatment for this example

<table>
<thead>
<tr>
<th>BOP Item</th>
<th>Credit (€ million)</th>
<th>Debit (€ million)</th>
<th>Net (€ million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other services</td>
<td>1500</td>
<td>1050</td>
<td>450</td>
</tr>
<tr>
<td>Profits</td>
<td>450</td>
<td>-450</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>1500</td>
<td>1500</td>
<td>0</td>
</tr>
</tbody>
</table>

5.5.13 The example shows (as has been argued in this paper), that a net treatment for the recording of transactions in merchanting of services is appropriate. This is particularly important if the resident entity is the 'principal' enterprise within a multi-national group through which the receipts and expenditure of the various affiliates are routed, because a change in this arrangement can have a significant impact on the data before and after the change. If, for example, the ultimate parent company decides to no longer have the resident entity as the 'principal' but to transfer this role to an affiliate in another country then significant discontinuities can result in the service data and the profit/loss when the change occurred. A net treatment limits the extent of the discontinuity.
CHAPTER 6

Quasi transit trade: when value added does not belong to the reporting economy

I. Introduction

6.1 European regulations and guidelines require the transmission of Balance of Payments (BoP) and merchandise trade data to Eurostat and to the European Central Bank (ECB) compiled according to the "community principle", reflecting the need for external accounts for the European Union (EU) as an economic union and the euro area as a monetary union. This implies that part of what from a national perspective would be identified as "transit trade", and hence not be included in the national statistics on trade, has to be included in the data reported by national reporting agents to Eurostat and the ECB for the sake of the compilation of EU and euro area BoP aggregates. This part is called "quasi transit trade" and it has a disturbing feature. The declared value of the goods entering the EU and the declared value of the goods leaving for another EU member state is substantially different, even though no change of ownership or material change occurs in the nature of the goods as observed in the reporting country. This is problematic when compiling data for an economic or monetary union, as the difference in value needs to be accounted for, and poses problems also for national compilers, who have to address difficult issues of residency and change of ownership. The differences in valuation observed in quasi transit trade can be traced back to the two separate international merchandise trade statistics (IMTS) data collection systems in the EU, Intrastat, which measures trade between EU member states, and Extrastat, which measures trade of the EU with third countries.

6.2 While at the beginning of this analysis quasi transit trade was considered to be a problem mainly for the compilation of EU and euro area aggregates, subsequent discussions of the issue clarified that similar gaps in valuation can also emerge within a country. For example, a merchant imports goods in country A, which is not his country of residence; these imports are valued at the merchant’s purchasers price. After some period of time the merchant sells these goods to a resident of country A. This transaction is valued at the selling price of the merchant. The gap between the value of imports and the value of the transaction in which the actual change in ownership takes place, is caused by the trade margins of the merchant. These margins are not recorded as import of services in country A, so there is an imbalance between demand and supply for the concerned commodity. Depending on the decisions in the balancing process, there is an effect on GDP. A very comprehensive description of how this phenomenon can affect national data is elaborated by the Hungarian Central Statistical Office and included in Annex 6.3.

II. Background

A. Description of the phenomenon

6.3 "Quasi transit trade" is a term introduced to distinguish a specific kind of transaction different from "simple transit" and "re-exports".

6.4 The EU has two separate statistical systems, Extrastat which is based on the customs declarations of goods entering and leaving the EU, and Intrastat, which is a statistical data collection on trade flows between countries within the EU. In the context of
Intrastat, exports are called dispatches and imports are named arrivals. The quasi transit trade “problem” stems from the observation of large differences between the recording of the value of the import from third countries in Extrastat and the subsequent recording of the value of the corresponding dispatch to another member state.

6.5 When different valuations occur in Extrastat and Intrastat for the same consignment of goods, it seems to imply two, not one, exchange of ownership. However the real change of ownership occurs only between the original seller and the buyer in the country of final destination. It is not straightforward how to determine the ownership of the goods, since Customs procedures (Extrastat) and survey results (Intrastat) are often handled by fiscal or shipping agents.

6.6 In detailed analyses performed by several member states, it emerged that the valuation problem could be partly attributed to global manufacturing; i.e. goods produced in for instance Asia, imported into the EU and distributed by multinational enterprises (MNE). These MNEs have no or only small resident units in the country where the goods physically arrive and customs declarations are made. They value imports at the pure cost price of the goods and export later at their selling price, which also covers expenditures on research and development (R&D), overhead, etc. For specific enterprises it has proven possible to trace the value gap to business statistics in their country of residence.

B. Examples of quasi transit trade

6.7 Some examples might help to understand the issue. In these examples we will show the flows of goods and the corresponding flows of payments (which of course could follow even more complicated paths than those shown in our examples):

- Country Y is the non-European country producing the goods and from which the goods enter the European Union;
- Country X is the country where the importer of the goods X is located; country X may be located inside or outside the European Union;
- Country A is the member state where the goods enter the European Union;
- Country B is the member state where the goods are finally delivered and consumed.
- The importer of the goods X can be a pure trader or a MNE involved in global manufacturing.

6.8 In country A, the unit A which takes care of all the custom procedures and that pays import duties does not become the owner of the said goods. Unit A may be a local fiscal representative which is only in charge of the customs formalities; as such unit A is considered only as a provider of services to non-residents in the national accounts of country A.

6.9 Units in countries X and A may be independent (as it is generally the case in Netherlands) or related (as it is often the case in Belgium); unit X can be located in country B (and in such a case country B=country X).

6.10 Diagram 6.1 show three possible examples of transactions among Y, X, A and B.

6.11 In examples 1 and 2, the goods acquired by country X from country Y enter the euro area/EU through member state A. Goods are then dispatched to member state B, which provides a payment to country X that in turn pays Y.

6.12 In example 1 the importer X is a non resident in the economic union/monetary union and in example 2 the importer X is resident in economic union/monetary union.
6.13 A price gap is observed between the import value recorded in Extrastat when entering the EU, thus reported by A according to the ‘origin principle’ with counterpart Y, and the value recorded in Intrastat when goods are dispatched to country B; B according to the ‘consignment principle’ will report “imports” from A (and not from Y). This community concept avoids a double counting of imports from Y at aggregated level.

6.14 Example 3 can be seen as a special case of example 2, where X and B are merged. In the example 3 the cash flows take place directly between country Y and country B, the country of final destination in the EU.

6.15 An important consideration is the relationship between the units in X, Y and B. Evidence available shows that these units may be independent parties and, in such cases, the price gap could be attributed to merchanting activity. However in the more significant cases and displaying the largest price gaps, the units are interrelated and belong to the same MNE.

Diagram 6.1
Examples of quasi transit trade schemes characterized by major price gaps
C. A related problem: VAT residents in Hungary

6.16 A problem similar in nature to the recording of quasi transit trade is described in a document presented by the Hungarian Central Statistical Office (HCSO) to the Conference of European Statisticians in June 2008\(^{30}\) (see Annex 6.3). HCSO discovered this valuation problem comparing the information related to trade in goods as available from the settlement system with the information available from merchandise trade data.

6.17 The problem described by HCSO is due to a group of special distributors called VAT residents of foreign enterprises. The export share of this distributors group, insignificant in 2004 the time of accession to the EU, had reached 10 per cent in 2007.

6.18 The problem noted by HSCO is explained in terms of exports and imports; however the similarities with the quasi transit trade problem are strongest in the case of an import, which is discussed below. The flows described below quite nicely correspond to examples 1 and 2 in diagram 6.1. We therefore add references to the country codes from those examples.

6.19 For imports the scheme of transactions involves two scenarios.

(a) A non-resident company (X) sells goods to a VAT-resident (A) in Hungary controlled by the parent company (Y); the foreign parent company (Y) effects the payment for the goods.

(b) Depending on the destination of the goods:

(i) The VAT resident (A) sells the goods to a resident buyer; who effects the payment to the foreign parent company (Y);

(ii) The VAT resident sells the goods to a non-resident (B), who effects the payment to the foreign parent company (Y). Only this very last case corresponds to the quasi transit trade definition.

6.20 Hungary observes for case 2a differences in valuation between the settlement and the import as recorded in merchandise trade statistics. In case 2b Hungary observes a valuation difference between imports and re-exports in merchandise trade that is similar to our description of quasi transit trade. In all cases the money transactions pass Hungary by (they are recorded in the country of residence of the foreign parent).

6.21 Crucially, Hungary considers VAT-residents as resident units, recognises 2b. as trade and includes it in the national accounts and balance of payment estimations for the trade margin realised by foreigners. The import of trade margins seems to the authors the correct solution for filling the valuation gap while preserving the link between national accounts (change of ownership) and foreign trade statistics (crossing border).

6.22 The Hungarian example makes very clear that a problem similar to quasi transit trade may also exist within a country. In this case the problem is however hidden, unless different data sources are cross-checked for consistency.

D. The size of "quasi transit trade" in the European countries

6.23 Currently transit trade is very significant in Belgium, Luxembourg and the Netherlands. Following several rounds of EU enlargements the transit trade phenomenon

\(^{30}\) Sandor Csizmazia, "About a valuation problem of transactions with the rest of the world, Conference of European Statisticians, 10-12 June 2008, ECE/CES/2008/37."
was discovered by other member states, particularly those with large borders and with a growing trade with Asian or sub-Mediterranean countries.

6.24 Chart 6.1 compares quasi transit trade Extra-EU imports with quasi transit Intra-EU exports and shows the gap between these two values. A gap that reached 40 billion euro in 2007 and decreased to 36 billion euro in 2008, due to a decrease in the gap recorded in Belgium and Netherlands. Probably this decrease is linked to the efforts made by these two countries to better deal with quasi transit trade transactions. The value is the sum of the gaps emerging from all the member states that declared problems of quasi transit trade in the reconciliation tables:31 Austria (only 2004 and 2005), Belgium, Luxembourg, Netherlands, Hungary and Slovenia (only 2004-2007). Slovakia reported data related to quasi transit trade for 2007 and 2008, but no evidence of price gaps. The data related to quasi transit in some of these countries are shown in Annex 6.1.

Chart 6.1

Quasi transit Extra EU imports and intra EU exports, in millions of euro

6.25 Chart 6.2 compares, for each year, the total value of imports (debits/resources) and exports (credits/uses) of goods and the balance as resulting from BoP (partner World) and from RoW. The data used for this chart are those reported to Eurostat by BoP and sector accounts compilers as used in the BoP/RoW survey run by Eurostat in February 2009.

6.26 As it is evident from chart 6.2, a sizeable gap exists between the gross and also between the net value of imports and exports of goods recorded in BoP and in RoW accounts.

6.27 The BoP/RoW survey showed that the difference between the value of goods in BoP and RoW is mainly due to the quasi transit trade problem affecting the data of few countries: Austria, Belgium, Luxembourg and Netherlands. The comparison between the

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31 The reconciliation tables show the transition from the value of goods published in merchandise trade and the corresponding value published in BoP. Reconciliation tables are compiled each year by EU Member States as part of Eurostat's BoP quality report. The data used for Figure 2 are those collected by Eurostat in December 2009 as part of BoP quality report.
BoP and RoW data of Austria, Belgium, Luxembourg and Netherlands is available in Annex 6.2.

Chart 6.2
Total trade in goods (with partner World) in BoP and RoW accounts, in millions of euro

6.28 Intra-EU asymmetries in services that were almost nil until 2003 have significantly increased from 2004 onwards, almost reaching the size of the asymmetries in goods. This trend is shown in chart 6.3. It would be interesting to investigate whether at least part of these asymmetries in services could be due to quasi transit trade being recorded (as merchanting) in the country of the parent company, but not in the member state where the goods are imported and dispatched in quasi transit.

Chart 6.3
Total BoP/RoW discrepancies in goods and asymmetries
III. Statistical treatment recommended in international standards

A. The definition of "quasi transit trade"

6.29 A clear definition of “quasi transit trade” as such is not immediately available from the various manuals. We will therefore propose our definitions and provide references to the definitions of the very same concepts available from the different manuals.

6.30 For the purpose of this chapter, we distinguish between the following distinct but related concepts:

- "Simple transit trade" describes transactions in goods which simply cross a country on their way to their final destination and that are generally excluded from foreign trade statistics (FTS), BoP and system of national accounts (SNA).

- "Re-exports" describes transactions in goods which are imported in a country by a resident and then re-exported. Re-exports imply a change in ownership and are generally included in FTS, BoP and SNA.

- “Merchanting” describes purchases of goods by a resident (of the reporting economy) from a non-resident combined with the subsequent resale of the same goods to another non-resident without the goods being present in the compiling economy. It is not included in FTS and is considered as an export of a service in IMF’s Balance of Payments and International Investment Position Manual (BPM) 5th edition, 1993 SNA and European system of accounts (ESA) 95, but will be part of exports of goods in BPM6, 2008 SNA and 2010 ESA (draft).

- "Quasi transit trade” describes transactions in goods which are imported in a country by an entity considered non-resident by the reporting country and then re-exported to a third country within the same economic union or customs area.

6.31 The boundary between re-exports and quasi transit trade is not always transparent. In the context of global manufacturing, MNEs transfer merchandise from one country to another, but it might be difficult to assess whether there has been a change in ownership or not. Ownership of the goods can be shifted from one country to another quite independently from the physical movements of the goods.

6.32 Simple transit, quasi transit and re-exports have a common element: in all three cases the domestic supply of goods in the compiling economy is not increased, even if the goods are physically present in the compiling economy.

6.33 Merchanting has a fundamental difference with Simple transit, quasi transit and re-exports: merchantized goods are not physically present in the compiling economy. Merchanting is however of interest in this discussion, as it potentially constitutes the logical counterpart of the observed quasi transit trade phenomenon.

6.34 In subsections B–E we will analyse further the definitions and concepts related to these issues provided by the international manuals.

B. Simple transit – direct transit trade – transport transit trade – goods in simple circulation

6.35 Simple transit trade describes transactions in goods which simply cross a country on their way to their final destination and that are generally excluded from FTS, BoP and
SNA (1993 SNA and ESA 95). These kinds of transactions are also mentioned under different terms in the international manuals.

6.36 Intrastat Regulation n°638/2004 Article 2 (g) defines "goods that are in simple circulation" between Member States as "Community goods dispatched from one Member State to another, which, on the way to the Member State of destination, travel directly through another Member State or stop for reasons related only to the transport of the goods". These goods are excluded from EU FTS\(^2\).

6.37 The International Merchandise Trade Statistics compilers manual (IMTS §102.) defines the criteria for identification of "goods being simply transported through a country". These are goods entering the compiling country for transportation purposes only. Transportation may involve simple handling operations and temporary storage. … If the goods destination, at the time of crossing the compiling country's border, is another country, these goods are to be treated as being simply transported through the country and have to be excluded from trade statistics".

6.38 BPM5 (§209.) defines "direct transit trade" as "goods in transit through an economy" and specifies that these must be excluded from imports and exports.

6.39 BPM6 (§10.22.a) defines "transit trade" as "goods admitted under special customs procedures that allow the goods to pass through the territory" and specifies that these must be excluded from general merchandise because there is no international transaction.

6.40 ESA 95 (3.136) specifies that imports and exports of goods exclude “Goods in transit through a country”. 2008 SNA (26.50) excludes goods that change location from one economy to another but do not change economic ownership from trade in goods.

C. Re-exports and re-imports

6.41 Re-exports describe transactions in goods which are imported in a country by a resident trader and then re-exported. In this case a change of ownership from the non-resident to the resident enterprise occurs. Re-exports are considered as normal transactions in trade in goods and are included in both the national and the European concept.

6.42 The IMTS (§136.) defines re-exports as "foreign goods exported (or re-imported) … in the same state as previously imported (or exported)." These goods must be included in total merchandise exports/imports.

6.43 BPM6 defines Re-exports (§10.37) and Re-imports (§10.40). "Re-exports are foreign goods (goods produced in other economies and previously imported) that are exported with no substantial transformation from the state in which they were previously imported. The price of the re-exported good may differ from its price at the time it was originally imported, due to factors such as transport costs, dealer’s margins, and holding gains/losses. For goods to be included in re-exports for balance of payments statistics, a resident must acquire, then resell the goods with the goods passing through the territory" (BPM6, §10.37).

D. Merchanting of goods

6.44 “Merchanting” is considered a service in BPM5 and defined as “the purchase of goods by a resident (of the compiling economy) from a non resident and the subsequent

\(^{2}\) Regulation n°638/2004, Article 3(2a) and (3b).
resale of the good to another non-resident” where the goods do not enter or leave the territory of the compiling economy (BPM5 §262). The difference between the value of goods when acquired and the value when sold is recorded as the value of the merchanting service (BPM5 §262).

6.45 In 1993 SNA (14.60) merchanting is defined in conformity with BPM5 as the activity of merchants or commodity dealers who buy commodities or other goods from non-residents and then sell them again to non-residents within the same accounting period without the commodities actually entering the economy in which the merchants are resident. 1993 SNA treats the difference between the sales and purchases for resale of such dealers as the value of the services they provide. This is to be recorded under exports of services. If, however, the goods are not resold within the same accounting period, the purchases have to be recorded as imports of goods which are temporarily held in inventory. When they are sold abroad in a later period they should be treated as negative imports.

6.46 ESA 95 does not explicitly mention the BPM5 treatment of merchanting as trade in services.

6.47 In BPM6 and 2008 SNA “Merchanting” is included under “Other Goods – Merchanting of Goods” (BPM6 10.41 to 10.49). Although merchanting arrangements are used in wholesaling and retailing, BPM6 notes that such arrangements may also be used in commodity dealing and for the management and financing of global manufacturing processes. In the latter case BPM6 notes (BPM6 10.42) that “an enterprise may contract the assembly of a good among one or more contractors, such that the goods are acquired by this enterprise and resold without passing through the territory of the owner.” BPM6 then continues to state that: “In other cases where the form of the goods does not change, the goods are included under merchanting, with the selling price reflecting minor processing costs as well as wholesale margins. In cases where the merchant is the organizer of a global manufacturing process, the selling price may also cover elements such as providing planning, management, patents and other knowhow, marketing, and financing. Particularly for high-technology goods, these nonphysical contributions may be large in relation to the value of materials and assembly.”

6.48 According to BPM6: “The treatment of merchanting is the following:

(a) The acquisition of goods by merchants is shown under “Goods acquired under merchanting” as a negative export of the economy of the merchant.

(b) The sale of goods is shown under “Goods sold under merchanting” as a positive export of the economy of the merchant” (BPM6 §10.44).

(c) In the counterpart exporting and importing economies, export sales to merchants and import purchases from merchants are included under “general merchandise” (BPM6 §10.45).”

6.49 It follows that whereas merchanting as a service (or as a good) is by definition recorded asymmetrically, “gross” recording as trade in goods, encompassing both general merchandise and goods under merchanting, is symmetrical.

6.50 Goods under merchanting are out of the scope of merchandise trade statistics and must be collected with business surveys.\footnote{United Nations Statistics Division (UNSD), “International Trade Statistics, concepts and definitions, 2010”, draft of 29 July 2009, specifies that goods under merchanting are excluded from international merchandise trade statistics, (2010 IMTS, §1.48).}
E. Quasi transit trade - disguised transit trade - indirect trade - quasi trade

6.51 According to merchandise trade terminology, "quasi transit trade" describes transactions where goods enter an economic union through a member state, are cleared for free circulation within that economic union (with custom duties paid) and are finally dispatched to another member state. The same kind of trade is also known as "disguised transit trade", to be distinguished from goods in "simple transit", where no administrative clearance takes place.

6.52 Quasi transit trade concerns mainly imports, but also exports may be affected, to a smaller extent.34

6.53 National Accounts manuals (ESA 95, 1993 SNA and 2008 SNA) do not make any reference to quasi transit trade.

6.54 ESA 95 (3.132) states that "Imports and exports of goods occur when there are changes of ownership of goods between residents and non-residents". 1993 SNA (14.88) defines exports of goods as "sales, barter, gifts, or grants" from residents to non residents.

6.55 1993 SNA (14.59) and ESA 95 (3.132 and 3.133) allow for an exception to the change in ownership rule in case of delivery of goods between affiliated enterprises (branch or subsidiary, or foreign affiliate): "a change of ownership is to be imputed whenever goods are delivered between affiliated enterprises".

6.56 This exception has been removed from 2008 SNA, which together with BPM6 now strictly follows the change of ownership principle (2008 SNA, paragraphs 26.20-26.21).

6.57 According to this national accounts' terminology, quasi transit trade can be defined as goods that are imported in a country and then re-exported by an entity which does not acquire the ownership of the concerned goods.

6.58 Alternatively, quasi transit trade can be described as re-exports of goods where the owner of the goods is not a resident in the reporting economy.

6.59 In the country where the goods enter the EU and are cleared for free circulation, the entity which is handling the import of the goods may be a logistics service provider, a fiscal agent or a tax representative. It is also possible that there is only a VAT-number with no staff employed, required to comply with the necessary customs declarations of importing the goods into the EU as well as with the necessary Intrastat declarations. In this case all declarations are done by the non resident merchant or manufacturer, possibly using the services of a fiscal agent.

IV. Measurement problems

6.60 The following subsections A and B provide a detailed explanation of the way merchandise trade data are collected in the EU and explain from what peculiarity of the collection system the quasi transit trade problem occurs.

6.61 A more general issue is however worth mentioning. The measurement problem behind quasi transit trade and behind the similar phenomena affecting national data is

34 E.g. some Baltic EU member states, according to their Extrastat data, export goods which clearly cannot have origin in these member states, like French wine. But the Intrastat arrival declaration from another EU member state is missing.
caused by the differences in the way international merchandise trade data are recorded and collected (crossing border) and the definition in the SNA (change of ownership).

6.62 International merchandise trade records the value of the goods at the moment of crossing the border, which is generally considered a good proxy for the change of ownership. However goods increasingly move across borders quite independently from the way the ownership moves.

6.63 The moment of crossing the border does not necessary reflect the moment of change of ownership, and the value declared when crossing the borders does not necessarily correspond to a transaction between a resident and a non resident.

A. Collection of data on merchandise trade in the European Union

6.64 The European Union (EU) is an economic union with a common customs territory. The customs union entered into force on 1 July 1968 and since then the EU member states apply a common tariff to extra-EU imports. There are no customs duties on intra-EU trade.

6.65 Customs duties are due when the goods are released for free circulation within the EU\(^\text{35}\). Other duties (such as alcohol or tobacco excises or VAT, which are not harmonised across the EU countries) are due when the goods are released for consumption. Release for consumption (i.e. payment of VAT and excise duties) is virtually always done in the country of destination.

6.66 The internal market was largely completed as of 1 January 1993, when all border controls within the EU were abandoned. Since then two different procedures are in place for collecting data on trade in goods among EU member states and with other countries: the Intrastat and the Extrastat system.

6.67 The Intrastat system has been created for collecting data on trade in goods between EU member states, is linked to the value added tax system, based on enterprise surveys and collects data according to the country of consignment (in case of arrivals) and destination (in case of dispatches)\(^\text{36}\).

6.68 The Extrastat system is based on customs data and collects data according to the country of origin/final destination.

B. Goods entering the EU in a member state and then moving to other member states: the Rotterdam effect

6.69 When the goods enter the customs territory of the Community, they are subject to customs supervision in the country where the goods are located until their custom status is changed (art 91 EC 450/2008). If customs clearance takes place in a member state which is not the country of final destination (but a member state located at the external frontier of

\(^{35}\) Since 1975 (for coal and steel since 1988) the revenue from these customs duties (incl. agricultural levies) has been an EU own resource. Member states keep a collection fee of 10 per cent (25 per cent since 2001). The fiscal representatives may pay the import duties. The GNP Committee has examined the problem of import duties paid by non-residents in relation to the eventual need to adjust (=reduce) the national figures of import duties, "Import duties paid by non-residents, the Rotterdam effect and the accession effect", 42nd meeting of GNP Committee, 3-4 July, Eurostat/B1/CPNB/342.

the European Union such as the Netherlands or Belgium) movement of goods between a non-Member country and a member state will be divided into two trade flows: one reported within Extrastat, the other reported for Intrastat.

6.70 According to Extrastat, an import or export has to be declared in the member state where the goods are cleared by customs for free circulation (i.e. submitted to custom duties and released for import, export or processing in all the territory of the EU) even if the final destination of these goods is another EU member state. When these goods are dispatched to the member state of final destination, an Intrastat dispatch declaration has also to be filled.

6.71 Community statistics require the application of this double reporting to assure that export and import data from non-EU countries at aggregate level are as accurate as possible and not affected by double counting or omissions. When the goods enter the territory of the European Union the statistics closely reflect customs’ records. Extrastat statistics are in fact based on a copy of customs’ records, the customs’ single administrative document (SAD) declaration. The statistical recording of successive movements of these goods across Europe produced via the Intrastat survey system is inherently not so accurate. Moreover, in Intrastat the information related to the country of origin is not obligatory, the reporting agent in the country of final destination may therefore not be aware of the non-EU country of origin of the goods and have only the information related to the country of consignment.

6.72 The phenomenon of "quasi transit trade" is generally attributed in Europe to the interface between the Intrastat and Extrastat trade data collection systems and has traditionally been described by the experts in merchandise trade as ‘Rotterdam effect’, from the name of one of the main ports where goods enter the EU.

6.73 However, experts believe that the Rotterdam effect is not confined to trade between EU member states, but can affect trade between any pair of countries where goods are transported via the territory of one or more other countries before reaching the country of final destination. In all these cases problems of asymmetries may exist between the data on exports reported by the country of origin and the data on imports reported by the country of final destination that may not know where the goods are originating from.

6.74 As the Hungarian case in Annex 6.3 shows, phenomena similar to quasi transit trade can arise whenever a merchant (or a MNE involved in global manufacturing) imports goods in a country which is not his country of residence.

6.75 It is worth mentioning that the possibility to clear the goods for free circulation in an EU country which is not the country of final destination may crucially depend on the means of transport. ‘As a general rule, for non-community goods that enter the EU via road the transit procedures (the TIR or the common transit procedure) are used, i.e. the goods are not treated by customs at the EU frontier, but in the country of destination. Similar considerations apply to rail. For air transport there will be no effect to the extent that airfreight will tend to arrive in an airport of the country of destination (an effect could however be imagined for airports with significant cargo volumes that are close to another member state’s border (Luxembourg is an example of this case). For goods arriving via the

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38 The SAD is the form that the EU companies involved in trade with third countries have to fill and to present to the Customs. See http://ec.europa.eu/taxation_customs/customs/procedural_aspects/general/sad/index_en.htm
sea (maritime transport), the likelihood that the goods are treated by customs in the country (harbour) of first entry is much higher than for the other means of transport. Therefore, it can be assumed that island states with their own access to the sea are unlikely to face a significant ... (quasi transit trade) effect. Countries with large harbours – such as Rotterdam or Antwerp - serving as an entry point for hinterland countries without access to the sea will tend to show a significant positive ... (quasi transit trade) effect. The hinterland countries will show a negative effect“

6.76 While merchandise trade data (and BoP data) transmitted to Eurostat have to include quasi transit trade, member states are free to produce and publish national merchandise trade data compiled according to other criteria.

6.77 Only a few EU member states are able to identify and exclude correctly this type of trade from their national statistics. The statisticians of most EU member states have no means to establish if what is imported by a non-resident does remain in their country or not, so they assume that whatever is cleared for free circulation in their country is also imported (and consumed) in the country or re-exported.

6.78 Extrastat legal provisions have been recently revised to adapt statistics on trade with non-member states to the Modernised Custom Code introduced with the Regulation n° 450/2008 (OJ n° L145, 4/06/2008). Article 106 of the Modernised Customs Code introduces the possibility of "Centralised Clearance". The 'Centralised Customs Clearance' procedure allows companies to lodge the customs declaration in any member state and not necessarily in the member state where the goods enter the European Union and are submitted to customs controls. Under this new procedure, the lodging of the customs declaration may therefore be dissociated both from the place of entry or exit of the goods in the EU and from the place of final destination.

6.79 It is not clear, yet, what consequences the new system shall have on "quasi transit trade" in the short term. In the long term, when data exchange systems between member states will be established, it is possible that the "quasi transit trade" problem could disappear, because the compilers in the country of final destination would be able to allocate correctly these kinds of imports to the country of origin.

6.80 We however doubt that the traders and the MNEs that are currently availing themselves of the possibility of reflecting higher prices for goods after the goods are cleared for free circulation in the European Union (and the import duties are paid) and before the goods are finally delivered to the member state where the goods will be

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40 “Import duties paid by non-residents, the Rotterdam effect and the accession effect”, 42nd meeting of GNP Committee, 3-4 July 2003, Eurostat/B1/CPNB/342, page 4.

41 For Extrastat, quasi-transit can be considered to coincide with transactions where the declarant use customs procedures that exempt him from payment of the VAT in the EU member state of entry of the goods (identified by procedure codes 42 and 63). Linking the Extrastat import with the subsequent Intrastat movement is more difficult. Netherlands is able to distinguish between quasi transit and normal trade because in its Intrastat forms it requires an additional field for the Special Procedure code. The method used by NL to identify quasi-transit trade is described in: "EU study on the Rotterdam effect", Edicom contract n°741100020, page 7-10. See also: HM Revenue and Customs, ‘Analysis of asymmetries in intra-community trade statistics with particular regard to the impact of the Rotterdam and Antwerp effects’. Edicom report 200453202017, December 2005, page 8.

42 The Centralised Customs Clearance and the Single European Authorisation will enable economic operators to centralise the accounting and payment of custom duties for all transactions in the authorising member state (which should be the one where the economic operator has the main accounts, documentations and records) although the movement of goods may take place in another Member State.
consumed, might have an interest in applying the ‘Centralised Customs Clearance’ procedure.

6.81 It should also be considered that in many cases at the time of import the merchant (or the MNE) does not necessarily know the final destination of the imported goods. The lodging of the custom declaration will be done by his fiscal agent that will still be in Rotterdam or Antwerp; the fiscal agent, not knowing the final destination of the goods, will still report Netherlands (or Belgium) as country of destination. As long as there is a time lag between the physical imports of the good and actual selling (change in ownership) the transit trade problem will probably exist.

V. Proposals for operational treatment in the accounts

A. The analysis and conclusions of Task Force on the Rest of the World Account

6.82 In June 2007 Eurostat and the ECB started publishing quarterly sector accounts for the EU (and the euro area) seen as a single entity. These accounts also show interactions between the EU (or the euro-area) and the rest of the world. To produce EU and euro-area sector aggregates, intra EU (and intra euro-area) transactions had to be removed from the Rest of the World account. Since quarterly RoW data produced by the member states have no geographical breakdown, BoP was identified as the source of the information related to the breakdown between intra and extra EU transactions.

6.83 Eurostat/ECB Task Force on the Rest of the World Account (the TF RoW) was set-up to investigate the problems that should be addressed to make BoP more responsive to the needs of sector accounts compilers. In a first round of work, TF RoW recommended the regular reporting of the detailed BoP transactions related to income and transfers that allow for a better match with the corresponding transactions compiled in sector accounts. In a second round of work TF RoW analysed the reasons of the discrepancies between BoP and RoW and produced recommendations for increasing consistency between the two data sets.

6.84 In relation to the item “Goods”, the largest contributor to differences between BoP and RoW identified by the TF was “Quasi transit trade”.

“Quasi transit trade” data are included in the national contributions from BoP and merchandise trade statistics reported to Eurostat, but not in the RoW data of some member states.

6.85 This causes large differences in the gross values of exports and imports resulting from BoP and RoW, but also large gaps between the balances of the goods account measured in the two frameworks. The values of quasi transit exports are in fact substantially higher than the value of the quasi transit imports, and the gap is much larger than what can be expected to result from storage, tax, transport and insurance fees.

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43 For details on the European sector accounts see http://epp.eurostat.ec.europa.eu/portal/page?_pageid=2553,64938511&_dad=portal&_schema=PORTAL.


46 “TF RoW: Consolidated reports”, BP/07/31, 4 October 2007. TF RoW reports were presented to the CMFB in January and June 2007; the consolidated version of the various reports has been circulated as document BP/07/31.
6.86 To ensure that the balance of trade in goods shown by EU BoP and EU RoW are comparable, TF RoW recommended that an adjustment under services should be introduced to explain the gap in the value of quasi transit trade imports and exports.

6.87 TF RoW also considered the possibility that problems of transfer pricing could be an underlying reason behind the "quasi transit trade" phenomenon.

6.88 Intra-group transactions in goods and services can be valued by MNEs at artificially high/low prices when they enter the EU, with the purpose of realising profits in one country rather than another for fiscal reasons or for minimising custom duties.

6.89 The TF concluded that it would not be appropriate to revise (upwards) the value of intra-group transactions related to goods imported from non-EU countries, because of the effect this would have on value indexes. Furthermore the companies involved in this quasi transit trade, if questioned about the reasons for this increase of the prices, would reply that the observed price gap constitutes a trade margin that covers outlays made for research, planning, marketing and advertising services provided by the parent company.

6.90 It should also be considered that transfer pricing is generally attributed to a resident unit which generates value added and profits and pays taxes. In case of quasi transit trade no resident unit is involved, therefore transfer pricing seems out of scope.

6.91 In relation to quasi transit trade, the following definitions and guidelines are included in the "Balance of Payments Vademecum", the reference document for the transmission of member states' data to Eurostat.

\[
\text{BoP Vademecum, Eurostat, November 2009}
\]

BoP item 201, Current account, Services, Branding, Quasi-transit adjustment shall be used by the member states affected by the phenomenon of "Quasi-transit trade" to report the gap between the value declared when the goods are initially imported from a non-EU country and their value when dispatched to another EU member state.

"Quasi transit trade" is a term used to define goods which enter the European Union in member state A, are cleared for free circulation (and submitted to import duties) in member state A, are then dispatched to the EU member state B.

In member state A, a company with little or no staff employed (but with a VAT number) might be managing the customs procedures related to these goods. In case member state A treats this company as non-resident for national account purposes, the transactions concerned would not be included in the goods compiled according to the national concept. However, they are included in the community concept followed in merchandise trade and BoP. Theoretically, "quasi transit trade" should have no impact in net terms. In practice the value of the goods re-exported can be much higher than the value of the goods which entered member state A. This creates significant differences between the net value of trade in goods recorded in BoP and in RoW.

The gap between imports and dispatches (excluding changes in price due to storage, tax and insurance) should be recognised in BoP as "Service", at least when reporting data to Eurostat and the ECB.

For practical reasons, (i.e. regardless of whether this is an intra-group transaction or transaction between independent parties), Eurostat and the ECB prefer the imputation to be made under "Branding", BoP item 201. The geographical breakdown should be compiled on the basis of the country of residence of the parent enterprise controlling the company that manages the customs procedure related to these goods in the reporting economy. Consultations with the counterpart countries (which should record a corresponding export of services) are encouraged in order to reduce intra EU asymmetries.
B. Implications of the TF ROW recommendations.

6.92 In terms of national accounts, the treatment agreed implies that the value added generated by the trade margin (corresponding to the price difference between quasi transit trade imports and subsequent dispatches), is attributed to the country of residence of the importer, ‘X’.

6.93 Table 6.1 shows the way the quasi transit trade transactions and the connected services imputation could be recorded in the national accounts of the countries involved: Y, the exporting country, A (the point of entry in the economic union, and hence the country compiling the FTS import data in Extrastat and recording the Intrastat dispatch), B (the country of final destination(s) in the economic union), and X (the country of residence of the importer). The consolidated external account for the economic union is also shown. Table 1 shows the recording when country X does not belong to the economic union, table 6.2 when country X does belong to the economic union.

Table 6.1
Treatment of quasi transit trade according TF ROW recommendations
Country X outside the economic union

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<td>150</td>
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<td>Trade balance</td>
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<td>-150</td>
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<tr>
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<td>50</td>
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Table 6.2
Treatment of quasi transit trade according TF ROW recommendations
Country X part of economic union

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<td>Exports/Imports of goods</td>
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<td>Exports/Imports of services</td>
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<td>50</td>
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<td>0</td>
<td>100</td>
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</tbody>
</table>

6.94 It is noted that, whereas this solves the discrepancies occurring in the recording of the quasi transit trade in the country of consignment (country ‘A’), it puts additional burdens on the statistical reporters of country ‘A’ that have to identify the geographical breakdown of the margins recorded.

6.95 As regards country ‘X’, there are doubts if it is equipped to record the value added that it obtains from purchasing or manufacturing goods in country Y and re-selling these goods at a significant margin in country B. The BoP and hence the RoW of that country may not record the merchanting or branding margins, as it might simply be unaware of these. Business statistics will probably provide the accurate information, but business statistics might not be able to attribute the trade margin to the RoW, because business
statistics generally do not provide a geographical breakdown for purchase of goods and services and for the value added.

6.96 If the real owner of the goods, located in country X is a merchant, the transactions might be recorded and captured via the survey on merchanting. But if a MNE is involved in global manufacturing, it is very unlikely that the company will be part of a survey on merchanting, the value added will therefore escape external trade statistics. The transactions of MNEs will be captured by business statistics, but business statistics might be challenged to attribute the trade margin to the RoW and will not provide any geographical breakdown.

6.97 Obviously, if the accounts of the importer (located in ‘X’) reflect the value of the goods imported as 50 and the cost of goods sold as 150, there is no reason for the accounts of this enterprise not to reflect the 100 trade margin. Hence the value added, as measured by the production approach or income approach will be measured correctly. However the national accounts compilers will need to identify the correct expenditure components to reconcile the expenditure approach. Here the compilers in country ‘X’ are faced with difficulties in identifying either the export of merchanting or branding services as the correct expenditure category, and might incorrectly assign these to domestic uses.

C. The impact of the new manuals (BPM6 and 2008 SNA) on the proposed treatment

6.98 As noted in section III, the BPM6 and the 2008 SNA take a firm view on the application of the change in ownership as being the only criterion in determining imports and exports. In the 2008 SNA paragraph 26.21 it is explicitly stated that there are no exceptions on this point.

6.99 How will the treatment proposed by TF RoW be affected by the introduction of the new manuals?

6.100 It is possible that, under the provisions of the new manuals, by adhering to the change of economic ownership criterion and following the new treatment of merchanting, the treatment of ‘quasi transit trade’ might be conceptually simplified as regards the national point of view.

6.101 The recording based on the new manuals is described below. In table 6.3 country X does not belong to the economic union? In table 6.4 country X is part of the economic union.

6.102 Country ‘A’ would not to report any trade. Even as goods cross into the national boundaries, no change of ownership occurs, and the ‘simple transit trade’ treatment would follow. Country B as before would record the import of the goods at the full value of 150. Country X would record under merchanting a negative export of 50, as a counterpart entry to the export value of country X, assumed to be outside the economic union, and would record a positive export of 150, as the counterpart entry to the imports of country B. In the case that country X does not belong to the economic union, the accounts of the economic union would show the value of external trade as 150, i.e. the value of the goods as they arrive in country B. In the case that country X would form a part of the economic union, the accounts of the economic union would reflect imports from country Y to the value of 50. Note that country ‘B’ should record the goods as imported from country ‘X’. This would require that merchandise trade data fully follow the change of ownership and not the movement of goods.
6.103 According to the provisions of the manuals and under the assumption that the data sources will adapt to the new definitions of change of ownership, the quasi transit trade problem should cease to exist.

6.104 However, if merchandise trade data continue to follow the movement of goods, as is to be expected, country 'B' would continue to record the goods as imported from country 'A', and "adjustments" will still be necessary in the data of country 'A', to assure a correct value and geographical specification for the data of the economic union.

6.105 Inasmuch as the new manuals require country 'X' to record these transactions under goods (as merchanting of goods), the current proposed treatment of recording the counterpart under services (branding) might need to be re-evaluated, to avoid introducing asymmetries.

VI. Recommended future work on the issue

6.106 Quasi transit trade was analysed in a very comprehensive way in this paper. The following issues would however need further investigation.

(a) To further investigate the relationship between merchanting and quasi transit trade

(i) Investigate the available geographical detail of the observed quasi transit trade. Individual countries will have severe problems to identify country 'X', the country of residence of the merchant. Inasmuch as the merchant is resident within the EU, mirror statistics from BoP surveys on merchanting may be of assistance.
(ii) Investigate the recording of the transactions in country ‘X’ (the residence of the merchant or global manufacturer). Country ‘X’ is where the value added corresponding to the price gap should be recorded and where in principle a “merchanting” transaction corresponding to the value of the price gap should be recorded.

(b) Analyse the effect on quasi transit trade of the ‘Centralised Custom Clearance’ procedures.

6.107 This paper also highlighted problems similar to those created by quasi transit trade that affect national data, and this issue would also deserve further research.

(c) Analyse this type of problems within a country, in a similar way as the Hungarian Central Statistical Office has done (see Annex 6.3)

VII. References


Sandor Csizmazia, "About a valuation problem of transactions with the rest of the world in Hungary", Conference of European Statisticians, 10-12 June 2008, ECE/CES/2008/37.

Annex 6.1

Quasi transit values in some European countries, in millions euro

Belgium: quasi transit trade

Netherlands: quasi transit trade

Luxembourg: quasi transit trade
QUASI TRANSIT TRADE: WHEN VALUE ADDED DOES NOT BELONG TO THE REPORTING ECONOMY

Austria: quasi transit trade

<table>
<thead>
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<th>Year</th>
<th>Extra EU imports</th>
<th>Intra EU exports</th>
<th>Value gap</th>
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<tr>
<td>2005</td>
<td>3500</td>
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</table>

Slovenia: quasi transit trade

<table>
<thead>
<tr>
<th>Year</th>
<th>Extra EU imports</th>
<th>Intra EU exports</th>
<th>Value gap</th>
</tr>
</thead>
<tbody>
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<td>500</td>
<td>-500</td>
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<tr>
<td>2005</td>
<td>500</td>
<td>1000</td>
<td>-500</td>
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<tr>
<td>2006</td>
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<td>1500</td>
<td>-500</td>
</tr>
<tr>
<td>2007</td>
<td>2000</td>
<td>2500</td>
<td>-500</td>
</tr>
</tbody>
</table>
Annex 6.2

Total trade in goods (with partner world) in BoP and RoW accounts

**Belgium:** total imports and exports of goods and balance in BoP and RoW

**Luxembourg:** total imports and exports of goods and balance in BoP and RoW

**Netherlands:** total imports and exports of goods and balance in BoP and RoW
Annex 6.3

Valuation problem of transactions with the rest of the world: case study by the Hungarian Central Statistical Office

A. Summary

6.3.1 The balance of external merchandise trade of Hungary has been improving since accession to the European Union. The former negative balance has significantly decreased by 2007. A key role in the improvement of the balance is played by both a group of special distributors and – as revealed by our analysis – the related valuation problem.

6.3.2 To analyse the role of the special distributors’ group, cash data of the line “goods” in the balance of international payments for the period 2003–2006 were used in addition to statistics on external merchandise trade. The analysis of comparable data covered detailed enterprise level data too.

B. Discussion

6.3.3 The valuation problem refers to a group of special distributors, the VAT residents of foreign enterprises in Hungary. In accordance with the legal rules in effect, a foreign firm in Hungary – similarly to other countries, for the purpose of performing commercial activity –, is allowed to claim to come within the provisions of Act on value added tax, and to apply for a tax number without being required to set up a business, have a local unit or employ a person. The distributor is obliged to submit a value added tax return but is not obliged to make a corporate tax return.

6.3.4 To compile external merchandise trade statistics, export and import data are collected directly from the distributor group or obtained from customs records. Although export share of the distributor group was insignificant at the time of accession to the European Union, it is more than 10 per cent today, and they have an even more important role in influencing the balance of external trade.

6.3.5 Based on the analysis, the different valuations and differing measurements applied by external merchandise trade statistics and settlement statistics can be illustrated by the following basic transactions:

I. Exports

(a) Transactions: a Hungarian resident sells products to a VAT resident in Hungary, and then the VAT resident sells the products abroad. The transaction can be illustrated in the following manner (diagram 6.3.1):

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Diagram 6.3.1

Exports

(b) Product flow and account flow: between the resident and the VAT resident in Hungary (1), and from Hungary abroad (2).

(c) Money flow: transfer from the account of the parent company of the VAT resident to the resident company (1), and from the foreign company buying the product to the account of the parent company (2). By involving the VAT resident, the transaction (and thus the value) measured in external merchandise trade statistics and balance of payments statistics is different.

6.3.6 Comments: the transaction between the resident and the VAT resident is a domestic transaction from the point of view of the VAT system, the resident makes out the invoice to the name of the VAT resident, and it is included in the value added tax return of both of them, but the product becomes the property and is recorded in the books of the parent company of the VAT resident. From the angle of settlement statistics the export transaction takes place already between the resident and the VAT resident. In external merchandise trade statistics the value of the transaction between the VAT resident (essentially its parent company) and the foreign buyer is measured.

2. Imports

(a) Transactions: the VAT resident imports the product, after which in case A sells it to the resident, or in case B sells it abroad.
Diagram 6.3.2

**Imports**

**Product flow and account flow**

- **Foreign seller** → **VAT resident** → **Resident buyer** → **Foreign buyer**

**Money flow**

1. **Foreign parent company of VAT resident**
2. **Resident company**
3. **Foreign buyer**

**Case A:**

(a) Product flow and account flow in case A: in stage one from abroad to Hungary (1), i.e. between the foreign company selling the product and the VAT resident, while in stage two in Hungary, between the VAT resident and the resident company (2A).

(b) Money flow: from the Hungarian resident to the foreign parent company of the VAT resident (2A), and between the parent company and the foreign seller (1).

6.3.7 Comments: from the point of view of external trade statistics imports take place in stage one, whereas in settlement statistics the second transaction is measured, the value of which is different from that of the first transaction.

**Case B:**

(a) Product flow and account flow in case B: compared to case A in stage two, the product is exported (2B) after import (re-export transaction).

(b) Money flow: between foreign companies (2B), residents are not involved.

Comments: Both transactions are measured in external trade statistics, but none of them in balance of payments statistics.

6.3.8 In the first case the value of exports measured by external trade statistics is higher than exports measured in settlement statistics, while in part A of the second example the value of imports is lower than imports registered in settlement statistics. Purchasers’ price and sales price measured in external merchandise trade statistics may be different in case 2B as well, while the total turnover and the possible balance are excluded from settlement statistics. The difference between the two types of statistics is realized in both cases in the books of non-resident enterprises.

6.3.9 In practice, in addition to the above basic cases several variations of external trade transactions may take place with the help of VAT residents, if, for example, the transaction is realized with the involvement of a VAT warehouse, or combined with re-export following processing under contract.

6.3.10 In macro statistics (national accounts and balance of payments statistics) the above-mentioned distributors can be regarded as “notional units”, or – as in the Hungarian
case – non-residents. External merchandise trade data are used in the two statistics in their own data systems, therefore, to ensure consistency, it is necessary to valuate transactions identically at national level, and make estimations of the trade margin realized by foreigners.

6.3.11 Three methods were analysed to estimate the differing measurements of external merchandise trade statistics and settlement statistics, i.e. revenues realized abroad:

(a) **Balance difference method**

6.3.12 HCSO managed to delimit a group of resident enterprises to which VAT residents with significant turnover can be assigned as transactors. Turnovers, i.e. invoice value, “corresponding” to balance of payments transactions, were estimated for residents and VAT residents thus defined. The export and import balance of residents is overestimated in external trade statistics by the difference between the estimated merchandise trade balance and the cash balance.

(b) **Estimation using VAT data of VAT residents**

6.3.13 VAT residents distribute products, their value added tax returns contain relatively simple transactions. Using VAT data a simplified balance of revenues (the sum of export and domestic sales) and expenditure (the sum of import and domestic purchases) and, based on this, the sales surplus and its proportion to total sales can be compiled. Assuming that prices are identical in each export direction, and multiplying exports of the above-mentioned distributor group by the proportion of the sales surplus equals the sales surplus realized by foreign enterprises.

(c) **Imputed trade margin method**

6.3.14 The surplus realized on imports and exports is calculated by imputing the percentage trade margin specific for international business practice, assuming that total imports are sold in Hungary and total exports derive from the Hungarian market.

6.3.15 In the first two cases the difference can be divided between exports and imports according to their proportion to each other, while in case of the third method the division is given. The order of magnitude of the results received by the three methods was identical.

C. **Conclusion**

6.3.16 The balance of goods measured in external merchandise trade statistics contains a component that is related to foreign enterprises, is recorded in their books and cannot be deduced from residents’ transactions. Accounting for the correction concerning foreign enterprises may be the following in macro statistics:

(a) Adjusting external trade prices to domestic prices, i.e. valuating imports at domestic sales prices and exports at domestic purchasers’ prices. Price adjustment requires the division of the difference between exports and imports.

(b) Accounting for the revenue surplus of foreign enterprises as services imports or income.
CHAPTER 7

International transactions in intellectual property

I. Introduction

7.1 As more production processes span national boundaries, international trade has grown in intellectual property products (IPPs) such as software and research and development. The need to capture these flows has grown as a result of decisions taken in the 1993 System of National Accounts (SNA) to classify software and databases as fixed assets, and the 2008 SNA to similarly classify the results of research and development.

7.2 The difficulty however is that little is known about the size and extent of the international flows of intellectual property and related income streams. Multinational enterprises are able to exchange and use intellectual property products across national borders, but the corresponding payments are rarely recorded. Payments for use are more likely to be observed as property income flows back to the parent company.

7.3 The problem of recording of transactions in software between affiliates has existed since the changes in the 1993 SNA were introduced. The recognition in the 2008 SNA that research and development (R&D) should also be treated as an asset has increased the size of this problem.

7.4 The recording of these transactions as property income rather than payments for, or for the use of, an asset has an impact on a number of important economic aggregates, including:

- Gross domestic product (GDP), gross national income (GNI), imports and exports of trade in services;

And the non-recognition of the IPPs as assets affects estimates of:

- GDP, gross fixed capital formation (GFCF) and capital stock.

7.5 The issue is not confined to transactions between affiliates. Correctly recording transactions in IPPs between non-affiliated units has also been difficult since the 1993 SNA was introduced. This reflected the international trade classification systems in use at the time, which did not contain a sufficiently detailed product breakdown of IPPs. This meant that many transactions were grouped under the ‘other royalty and license fees’ BPM5 category:

‘...the authorised use of intangible, non-produced, non-financial assets and proprietary rights (such as patents, copyrights, and industrial processes and designs) and with the use, through licensing agreements, of produced originals or prototypes (such as manuscripts, computer programs, and cinematographic works and sound recording)...’.

7.6 The lack of a breakdown by type of royalty (in particular the inability to differentiate between transactions in produced and non-produced non-financial assets) affected estimates of GDP and GFCF. And in the latter case, estimates were affected even if GDP was correctly recorded (reflecting the fact that in many countries supply-methods are used to estimate GFCF).

7.7 Improvements are however being made in this area. Revisions to the Manual on Statistics of International Trade in Services (MSITS) and the associated Extended Balance of Payments Services Classification (EBOPS) include a more detailed breakdown of intellectual property products, and this is described in more detail below.

7.8 Given their differences, this chapter separately examines the issues related to trade between affiliates and trade between non-affiliates.
How big is the problem?

[Absolute figures from international trade in IPPs will be inserted.]

7.9 It is not possible to provide a definitive answer to this question given the difficulty within the current statistical collection systems to identify these flows. But the circumstantial evidence supports the premise that the size is significant.

7.10 For example, trade in “other royalties and license fees” reflects a significant proportion of activity in countries such as Ireland and the Slovak Republic. This is shown in Chart 7.1. Although the shares are lower in other countries, for example 0.5 per cent for exports in the United States, they are not insignificant in absolute terms.

Chart 7.1
Imports and Exports in ’other royalties and license fees, in percentage

Source:

7.11 It is likely however that many transactions in payments for the use of IPP are missing, as for many countries no transactions are recorded within this category of other royalties and license fees. Moreover, the category itself may not contain all transactions related to the use of IPPs; particularly the use of research and development originals between affiliates. The figures for Ireland and the Slovak Republic, where a large number of hi-tech MNEs have set up base, do suggest however that transactions between affiliates are in part recorded.

7.12 Comparing the figures for these two countries, it appears that differences caused by a lack of detailed classification systems arise. For example, Ireland has relatively low exports of ’other royalty etc’ services compared to its import figures, and compared to the Slovak Republic. On the other hand,
Ireland’s trade deficit in this area is entirely offset by its surplus in ‘computer and information services’ – whereas the Slovak Republic has a net deficit in this product.

7.13 Another way of looking at the problem, or rather the potential scale of the problem, albeit in an exaggerated way, is to consider the size of primary income flows receivable from and payable to the rest of the world (see Chart 7.2). Clearly such an analysis overstates the potential size of the problem since these flows cover considerably more transactions than just those related to transactions in IPPs between affiliates alone – imputed or otherwise. But for some countries, such as Ireland, where one might expect significant flows between affiliates to occur, the scale is significant enough to note that even if only a relatively small percentage of these flows related to transactions in IPPs between affiliates, the impact on GDP could be considerable, depending on how these flows were eventually recorded (it is possible for example, as shown later, to continue to record the flows in their current form without seriously compromising the accounts).

Chart 7.2
Primary incomes receivable from and payable to the rest of the world – per cent of GDP, 2007

Source:

7.14 The following sections elaborate on the issues raised so far.
II. Statistical treatment recommended in international standards

A. International trade classification systems and IPPs

7.15 The 2008 SNA recognises five categories of intellectual property assets:
   i. Research and development;
   ii. Mineral exploration and evaluation;
   iii. Computer software and databases;
   iv. Entertainment, literary and artistic originals; and
   v. Other IPPs.

7.16 With the exception of mineral exploration and evaluation, IPPs are subject to substantial international trade. Commonly, the trade relates to copies of IPPs, such as packaged software, and musical and film recordings, or the services provided by them but trade in originals, such as R&D, can be important. Given their importance, and the widespread use of the supply-side approach to estimating GFCF, the accurate measurement of exports and imports of IPPs is necessary to produce high quality estimates of GFCF and GDP in the national accounts.

7.17 Transactions in originals and copies of IPPs, and IPP services, are recorded in the goods and services account of the balance of payments (BoP). Chapter 10 of the Sixth Edition of the Balance of Payments and International Investment Position Manual (BPM6) describes the categories in which they are recorded. The level of detail at which international transactions in IPPs are currently collected is not sufficient for measuring GFCF in these assets using supply-side methods.

7.18 This situation is further complicated by the fact that IPPs can have a dual categorisation – both as goods or services, depending on the mode with which they are transported. This means that the data required compiling total imports, and therefore GFCF, of a particular IPP category such as software, comes from two different collection sources.

7.19 One of the most important sources for estimating international trade in services are surveys conducted in accordance with the Manual on Statistics of International Trade in Services (MSITS). The 2002 edition of this manual, which is consistent with both the 1993 SNA and BPM5, includes the Extended Balance of Payments Services Classification (EBOPS). The text below, which looks at the three main types of IPP that are internationally traded, describes why the breakdown into product groups currently defined in this classification system is often not sufficient for national accounts purposes. However, revisions to both EBOPS and the MSITS have recently been agreed, which should improve the situation. These changes, including a full description of the relevant classification structure within EBOPS for IPPs, are described below.

1. Computer software and databases

7.20 The supply-side approach to estimating GFCF requires that a breakdown of products is possible between those destined for intermediate consumption and those for GFCF. Such a breakdown has been developed conceptually as shown in summary detail below (with the entry in brackets reflecting the conceptual destination category). More detailed information can be found in the OECD Handbook on Deriving Capital Measures of Intellectual Property Products. Computer software and databases can therefore be broken down into the following categories:

   • Customized software and non-customized originals (GFCF),
   • Non-customized software – outright sales of copies and long-term (more than one year) licences to use (GFCF),
   • Non-customized software – short-term (one year or less) licences to use (IC),
   • Non-customized software - licences to reproduce (resembling an operating lease) (IC),
• Non-customized software - licences to reproduce (not resembling an operating lease) (GFCF),

• Hardware and software consultancy, implementation and installation services; analysis, design and programming of systems ready to use (GFCF),

• Repairs and maintenance of computers and peripherals; data recovery services, provision of advice on matters related to management of computer resources; systems maintenance and other support services, such as training; data processing; web page hosting services; provision of applications, hosting clients’ applications, and computer facilities management (IC).

7.21 However, the product breakdown currently provided in the MSITS (2002) is at a more aggregate level. The current (2002) version of the EBOPS classification contains a specific classification for “Computer Services” but with no further breakdown. It does not capture trade in “Licences” to use non-customised products provided on disks, etc. and which convey perpetual use, which are instead recorded as trade in goods rather than trade in services. Neither does it capture licenses to reproduce software separately, as they are included in the more general heading of “Other Royalties and License fees”.

7.22 The new MSITS (2010), and corresponding EBOPS, have been developed to better accommodate the needs of the national accounts in this regard. At its March 2009 meeting, the Interagency Task Force on Statistics of International Trade (TFSITS) approved a number of changes to the EBOPS classification. Those affecting the measurement of software are introduced as follows:

• A separate category, “Licenses” to reproduce and/or distribute software, within “Charges for the use of intellectual property” (previously referred to as “Royalties and License fees”).

• A breakdown of “Computer Services” into “Computer software and Other computer services”, with a further of-which item for the former, reflecting software originals.

• The inclusion of a supplementary item “Computer Software Transactions” (which includes licenses to reproduce/distribute software, computer software and importantly, transactions in computer software goods).

• The inclusion of a further supplementary item licenses to use computer software (which includes all licenses to use computer software, irrespective of whether they are classified as goods or services).

7.23 Such a breakdown should enable data collection to improve the quality of supply-based methods of GFCF.

2. Entertainment, literary and artistic originals (audiovisual products)

7.24 As for computer software, MSITS (2002) contains general product categories for audiovisual products such as “Audiovisual and related services” and “Royalties and License fees”.

7.25 A product breakdown is needed that facilitates supply-based estimates of GFCF. Fortunately, as with software, planned and agreed revisions to the EBOPS will improve the situation here. Those affecting the measurement of audiovisual products are as follows:

• A separate category, “Licenses to reproduce and/or distribute audiovisual and related services”, within “Charges for the use of intellectual property”.

• A breakdown of “Audiovisual services” into “Audiovisual products and Other audiovisual services”, with a further of-which item for the former, reflecting Audiovisual originals.

• The inclusion of a supplementary item “Audiovisual transactions”.

• The inclusion of a further supplementary item “Licenses to use audiovisual products”.

7.26 This new product classification will enable data to be collected that can significantly improve the quality of supply-based estimates of GFCF. The supplementary item “Licenses to use audiovisual products” will, for example, include transactions in audiovisual ‘goods’ (CDs, DVDs etc),
and “Other audiovisual services” will separately record those transactions in audiovisual products, such as fees to actors, payments to encrypted television channels etc that should not be recorded as GFCF.

3. Research and Development

7.27 In the 2002 MSITS, R&D transactions fall into three categories: “Other royalties and licence fees”, “Research and development services” and “Acquisition or disposal of non-produced, non-financial assets”. The first two of these categories are in the current account and the third is in the capital account. In BPM6 R&D transactions fall into two categories: “Charges for the use of intellectual property” and “R&D services”. As far as R&D is concerned, the major change in categorization is that payments for the acquisition of patents have been moved from “Acquisition or disposal of non-produced, non-financial assets” in the capital account to “R&D services” in the current account. This reflects the change in the 2008 SNA that R&D expenditures can be recognised as GFCF, and, so, as produced assets. In the 1993 SNA payments for these assets were often recorded as transactions in patents.

7.28 The definition of R&D services in BPM6 is wider than that in the 2008 SNA and the Frascati Manual because it includes testing and other product development activities that may give rise to patents (see BPM6 paragraph 10.148). The planned revision to EBOPS, however, has been designed to separately identify this component of R&D services, as shown in Table 7.1.

Table 7.1
2010 Extended Balance of Payments Services Classification (EBOPS 2010)

8 Charges for the use of intellectual property, n.i.e.
8.1 Franchises and trademarks licensing fees
8.2 Licenses for the use of outcomes of research and development
8.3 Licenses to reproduce and/or distribute computer software
8.4 Licenses to reproduce and/or distribute audiovisual and related products
8.4.1 Licenses to reproduce and or distribute audiovisual products
8.4.2 Licenses to reproduce and/or distribute other products

9 Telecommunications, computer, and information services
9.1 Telecommunications services
9.2 Computer services
  9.2.1 Computer software
    of  9.2.1.a Software originals which:
    9.2.2 Other computer services
9.3 Information services
  9.3.1 News agency services
  9.3.2 Other information services

10 Other business services
10.1 Research and development services
  10.1.1 Work undertaken on a systematic basis to increase the stock of knowledge
    10.1.1.1 Provision of customised and non customised R&D services
    10.1.1.2 Sale of proprietary rights arising from R&D
      10.1.1.2.1 Patents
      10.1.1.2.2 Copyrights arising from R&D
      10.1.1.2.3 Industrial processes and designs
      10.1.1.2.4 Other

10.1.2 Other
B. Movement of IPPs between affiliated enterprises

7.29 Transactions related to IPPs between affiliated enterprises, are thought not to be well covered in international trade statistics. There are two separate issues. The first concerns ownership and associated transactions in IPPs. The second is whether there has been an increase in the value of the original, and how it should be dealt with.

7.30 The key difficulty is that IPP-related transactions between affiliates are rarely recorded by either party. When an IPP is provided by one affiliated enterprise to another, either in its entirety or via a license to use or reproduce, a number of possibilities for recording the transaction arise:

a. There is either a sale or licence agreement between the provider and the recipient: the provider provides access to the IPP in exchange for a fee that is observable and should be recorded in the BoP and SNA goods and services accounts.

b. There is a capital transfer from the provider to the recipient, i.e. the IPP is a gift. This should be recorded in the BoP and SNA capital accounts, but it is very likely to be unrecorded.

c. The IPP is provided by the parent to a foreign subsidiary without a fee but with the expectation of receiving increased property income from the affiliate in the future. In effect, the parent is providing the IPP for a fee and then using the fee to increase its foreign direct investment in the subsidiary. This is likely to go unrecorded. This can include access to reproduction rights without explicit observable fees charged.

d. The IPP is provided to the parent by the foreign subsidiary without a fee but in response to previous foreign direct investment. In effect, the parent is receiving the IPP in lieu of property income. This, also, is likely to go unrecorded unless steps are taken to monitor what is happening to the output of foreign-owned units created to undertake the production of IPPs.

7.31 Transactions between affiliates also have an impact on the valuation of the original IPP. There are two possibilities:

a. The aggregate value of the asset has increased within the MNE: in other words, the expected present value of future benefits has increased, as could occur, for example, if the MNE acquired a new affiliate and so obtained economic rights within a country that were not expected at the time of the original valuation. This would be recorded in the other changes in the volume of assets account of the provider. Such recordings have been rare in practice. A consequential difficulty is related to the split, if any, of the asset across the different countries where economic rights exist.

b. The aggregate value of the asset has not changed: the provider expected to share the asset in some way at the time it was acquired. In other words, the original valuation reflected the scope for its use across different countries.

7.32 It is not because of changes in the 2008 SNA that these problems have arisen; they have always existed but the increasing use of IPPs and the recognition that R&D should be considered an asset have increased the size of the problem.
III. Measurement problems

7.33 Because of improvements that have already been identified in international trade classification systems, the key focus of the remainder of the chapter is on trade between affiliates.

7.34 The section above highlighted four areas that describe transactions in IPPs between affiliates. The following discusses these and the implication on the accounts more generally – in particular the implication on capital stock estimates; a key input used in the calculation and derivation of productivity estimates.

A. Observable sale or licence agreement between affiliates

7.35 The 2008 SNA provides clear guidance on the treatment of observable and measured transactions in IPPs. The following accounting entries arise when affiliates engage in transactions in IPPs:

- **When the entire IPP original (produced in a prior accounting period) is sold by one affiliate for sole use by another:** The accounts should record an export and negative GFCF in the exporting country and a corresponding import and positive GFCF in the importing country.

- **When the entire IPP original (produced in the same accounting period) is sold by one affiliate for sole use by another:** The accounts should record an export in the exporting country and a corresponding import and positive GFCF in the importing country.

- **When a licence to reproduce is sold by one affiliate to another:** Assuming that the creation and acquisition of the license to reproduce does not change the value of the underlying original, the accounts should record an export and negative GFCF in the exporting country and a corresponding import and positive GFCF in the importing country. This is a change from the treatment in the 1993 SNA which recommended that payments for licenses to reproduce should be recorded as payments for services provided by the ‘original’ IPP. The 2008 SNA treatment also holds in the case when part of the ‘original’ is sold. When a license to reproduce or part of an original is sold for use in a territory that had not prior been factored into the valuation of the original, the accounts should also record a positive increase in other changes in the volume of assets account (cancelling out the negative GFCF incurred through the sale of the license/part of the original).

- **When a copy or licence to use is sold by one affiliate to another:** As long as the copy or license-to-use satisfies the requirements that it can be treated as an asset, the accounts should record an export (equivalent to the value of the copy/license) and a corresponding import and positive GFCF in the importing country.

- **When the underlying asset is used to provide services only:** This is equivalent to the provision of a license-to-use or license to reproduce that do not satisfy asset requirements. In these circumstances the accounts should record an export (equivalent to the value of the services) and a corresponding import in the importing country.

7.36 For convenience paragraphs 10.99 and 10.100 of the 2008 SNA, which relate to all cases above, are shown below:

‘10.99 Some IPPs are used solely by the unit responsible for their development or by a single unit to whom the product is transferred. Mineral exploration and evaluation is an example. Other products, such as computer software and artistic originals, are used in two forms. The first is the original or “master copy”. This is frequently controlled by a single unit but exceptions exist as explained below. The original is used to make copies that are in turn supplied to other units. The copies may be sold outright or made available under a licence.'
10.100 A copy sold outright may be treated as a fixed asset if it satisfies the necessary conditions, that is, it will be used in production for a period in excess of one year. A copy made available under a licence to use may also be treated as a fixed asset if it meets the necessary conditions, that is, it is expected to be used in production for more than one year and the licensee assumes all the risks and rewards of ownership. A good, but not necessary, indication is if the licence to use is purchased with a single payment for use over a multi-year period. If the acquisition of a copy with a licence to use is purchased with regular payments over a multi-year contract and the licensee is judged to have acquired economic ownership of the copy, then it should be regarded as the acquisition of an asset. If regular payments are made for a licence to use without a long-term contract, then the payments are treated as payments for a service. If there is a large initial payment followed by a series of smaller payments in succeeding years, the initial payment is recorded as gross fixed capital formation and the succeeding payments as payments for a service. If the licence allows the licensee to reproduce the original and subsequently assume responsibility for the distribution, support and maintenance of these copies, then this is described as a licence to reproduce and should be regarded as the sale of part or whole of the original to the unit holding the licence to reproduce.

B. (Unidentifiable) IPP transactions between affiliates

7.37 At the heart of cases (b), (c) and (d) in paragraph 30 is the fact that one affiliate makes an IPP available to another without an explicit transaction related to the IPP being observed.

7.38 When an IPP is made available by one affiliate to another, a transfer of an IPP asset or services related to the use of the asset takes place. In accounting terms, the exchange of an asset can be accounted for by a capital transfer, a loan, or a payment for the asset. For services provided by the original, an imputation reflecting payment for the services is needed.

7.39 In practice it is difficult to identify the precise nature of the exchange between affiliates (transfer of a copy, original, license to reproduce, services etc) as the rationale by a business will often be driven by a desire to minimise taxes, and so the accounting treatment will reflect this aim. Ideally, new surveys targeted at multinationals should be launched to directly address the measurement of these transactions. However, any such survey will need to fully address the needs of the national accounts and to some extent these needs remain to be fully articulated. The key question in this respect relates to whether the transfers satisfy the criteria to be treated as such in the national accounts sense. Further research will be needed in this area and some proposals that could form part of a research agenda are included in Section IV below.

IV. Recommended Future work on the issue

7.40 The previous section highlighted some of the difficulties that transactions in IPPs within MNEs present for the accounts, and in particular the dearth of information and indeed practical rules that currently exist to assist internationally comparable measurement.

7.41 It is clear that further work on both fronts is needed. Better surveys are essential but so is further research and guidance on whether transfers between MNEs (often designed to minimise taxes) should be treated as such in the national accounts.

7.42 This section provides proposals on both these fronts.

7.43 Concerning the guidance on the treatment of transfers, the discussion that follows makes a proposal that could minimise international incompaqrability in major aggregates, such as GDP and GNI. The impact can be minimised, if one takes the conceptual position that the flows relate to pre-existing assets: a proposal that will need to be further considered in the form of a Task Force or via another forum such as the ISWGNA.
A proposed solution for measuring transfers in IPPs between affiliates

7.44 When transfers in IPPs are made between affiliates, from a national accounts perspective, it can be argued that the underlying asset, or a copy of the asset (that also satisfies the conditions that it can be recorded as an asset), has been made available to the receiving affiliate, rather than services provided by the original. It seems unlikely that the affiliate will only receive the ‘services’ (or the rights to use the asset) for one year. More realistically the affiliate will receive the ‘services’ for at least one year (typically it is likely to receive them for the duration of the lifetime of the underlying original). Therefore the flow of ‘services’ received is closer to a license-to-use (a copy) or a license-to-reproduce.

7.45 This argument conveniently allows any discussion on the flows that need to be imputed in relation to transactions in IPPs between affiliates to reflect a transfer of IPP assets.

7.46 When IPP assets are transferred between affiliates the first step is to impute the flow that reflects the exchange of the asset between the two parties. This can be achieved either via: a capital transfer; a loan (and acquisition transaction) and subsequent repayment(s) of interest; or via a payment for the asset, whether the payment is at the point of acquisition or over the lifetime of the asset’s production.

7.47 For simplicity it is useful to consider the following two cases: (a) a transfer of an asset from the parent company to an affiliate and (b) a transfer from an affiliate to the parent (with possible reallocation to other affiliates).

A. Transfer from the parent to an affiliate

7.48 There is an increasing tendency for multinational companies to legally transfer intellectual property products, developed or acquired in one territory, to another, with the sole purpose being to minimise taxes. Unfortunately such transactions (the original transfer and subsequent income earned by the transferred asset) are rarely recorded. And in the case of the income subsequently generated by the asset the transactions, if recorded, are more probably recorded as property income rather than as transactions in goods or services.

7.49 It is instructive to consider how these flows should be recorded in the national accounts. In practice (when flows are recorded as property income and not as identifiable transactions in IPPs) the parent company transfers the rights to an IPP to an overseas affiliate. This transfer will often not be recorded – meaning that exports and imports of IPPs are underestimated, with GFCF in the territory of the parent company overestimated and underestimatet in the territory of the affiliate. Subsequent to the transfer of the (whole) asset the affiliate will generally charge the parent company for using the IPP in production. These transactions are likely to be recorded as property income payments by the parent company (with subsequent retransfers of (profits) property income from the affiliate to the parent and, possibly, reinvested earnings from the parent to the affiliate).

7.50 However, it is important that the accounts attempt to reflect the true economic flows and not those that have been engineered by the multinational for tax purposes. Even if the parent company explicitly makes property income payments related to the use of the IPP on an annual basis, it is clear that, in practice, the parent company fully intends to make use of the IPP throughout its working life, and that, despite its transfer, to the affiliate for tax purposes, it retains, at the very least, rights to reproduce, that satisfy asset requirements. Following this reasoning, transfers related to the IPP should be recorded as transactions in existing assets. This helpfully means that the transactions have no direct impact on GDP in either the parent or the affiliate’s territory.

1. Transfers from a parent to an affiliate not engaged in SNA production

7.51 In the simple case where the MNE transfers the asset to an affiliate that does not engage in any SNA production (in a true sense) but merely permits the parent to make use of the transferred original, the flows that should be recorded in the accounts are relatively easy to deal with. The
accounts would need to record a transfer from the parent to the affiliate but then a retransfer of a license to reproduce equivalent to the value of the original; meaning that the net position on GFCF in both countries is unaffected. Equally, as the affiliate is not engaged in any other activities, it also means that, any transactions related to the use of the IPP have no impact on GDP; reflecting the fact that the affiliate is merely an accounting construct to minimise taxes.

7.52 In the unlikely event that transactions between the affiliate and the parent are recorded in trade statistics (as annual payments for services) these should instead be recorded as finance lease payments (reflecting the acquisition of a license-to-reproduce by the parent) and, so, as property income.

7.53 Following this logic through therefore, the inability to fully record transactions related to the transfer of an asset from a parent to an affiliate does not have a significant impact on the accounts. The impact is largely restricted to lower import and export figures. In any case, because the transfer is, to some extent an accounting construct, not recording such flows (a transfer of an original and a retransfer of a license to reproduce equivalent in value to the original) may be a more meaningful option, at least as far as the national accounts is concerned.

7.54 In terms of other economic variables the impact on KLEMS type productivity measures will be largely unaffected in practice. The balance sheets of the affiliate should not reflect the value of the IPP (which has been retransferred to the parent via a license-to-reproduce), which is consistent with the fact that the affiliate produces no value-added related to the IPP. Equally, for the parent, the balance sheets will already reflect the value of the original IPP asset (which will be equal to the value of the retransferred license to reproduce).

2. Transfers from a parent to an affiliate engaged in SNA production

7.55 A more difficult case to resolve concerns the case where the affiliate is also engaged in some production related to the use of the IPP. In this case it is clear that the transferred IPP asset is being used in production but the value of the underlying asset is, as is the case above, reduced by the value of the implicit licenses-to-reproduce that have been ‘sold’ back to the parent company.

7.56 Ideally the resale of (part of) the asset from the affiliate to the parent as a license-to-reproduce should be treated as if it was never transferred from the parent. The less attractive alternative is to consider imputing an acquisition payment from the parent to the affiliate. However because there is unlikely to be such a payment in practice (rather, there will be a series of payments over time reflecting the charges made by the affiliate for using the original), it will also be necessary to impute a loan and series of finance lease payments which will impact on net-lending.

7.57 As above, the simpler treatment restricts the problems to trade, GFCF, and balance sheets (capital stock and so KLEMS measures). But importantly because the trade concerns pre-existing assets, GDP is not affected.

7.58 Concerning the impact on balance sheets and KLEMS it is important to put this into context. The valuation of IPPs is generally done on a very conservative basis (typically reflecting the sum of costs).

7.59 In that sense it might be simpler to consider the issue of balance sheets separately from the transfers of IPPs by allowing the values of transfers to be reflected in the revaluation of assets rather than through imputed transfers.

7.60 In other words, however assets are transferred from a parent to an affiliate the following could be assumed in practice, and form the basis of a research agenda:

- No imputation is needed in trade in goods and services, and correspondingly,
- No imputation is needed to reflect the transfer of the asset as flows in pre-existing assets.
- Any charges for the use of the asset by the affiliate to the parent that are currently recorded as payments for the use of the asset in trade in goods and services should be reclassified to
property income payments. If these charges are also included as positive contributions to GVA in the affiliate and negative contributions to GVA in the parent, it will also be necessary to treat these as income flows.

- Every attempt, using survey sources (see below) should be made to accurately reflect the value of the IPPs on the balance sheets of the affiliate and the parent. For the affiliate this will mean that a revaluation change occurs despite the fact that an underlying IPP asset was never recorded as being transferred or produced, which, although conceptually incongruous, is a practical compromise.

**B. Transfer from an affiliate to the parent**

7.61 Of the possible flows described above to reflect the initial transfer of the asset (or part of) from the affiliate to the parent, the most appropriate accounting treatment (given the typical relationship between parents and affiliates) is to record an acquisition payment or series of payments by the parent company.

7.62 At present the accounts are likely to record any flows related to the transfer as property income/foreign direct investments (FDI).

7.63 This means that trade in goods and services will be underestimated. Equally GFCF in the parent company will be underestimated and GFCF in the affiliate overestimated (if the asset developed by the affiliate is not intended for use by the affiliate).

7.64 If the asset is intended for use by the affiliate, an appropriate imputation is to assume that a copy of the original or license to reproduce has been transferred to the parent. In practice a license to reproduce is the more appropriate of the two options as it is unlikely that the parent would not acquire these rights. This distinction is important since if a copy was transferred to the parent this would reflect output by the affiliate that would not currently be recorded and so GDP in the affiliate’s country would also be underestimated; although GFCF would not be overestimated. If it were assumed that a license to reproduce was transferred however, GDP would not currently be affected (although GFCF would be) – since the license to reproduce is considered, within the accounting framework as being analogous to part of the original. This assumes that the license to reproduce is only realised after the original has been created and valued in the accounts of the affiliate.

7.65 Because it is literally impossible to ascertain that the asset will not be used by the affiliate in production it is simplest to consider that it will be (even if the original (or part of) only resides with the affiliate for tax purposes) and that any transfer from the affiliate to the parent is in relation to part of the original. Equally, as above, it is simplest, for sake of argument, to also assume that the initial valuation of the original takes into account the transfer of some rights (license to reproduce) to the parent, and that subsequent changes in the value of the asset merely reflect revaluations. As before, this means that the license to reproduce is only realised after the original is created.

7.66 Put simply this means that when a transfer related to an IPP between an affiliate and a parent occurs, a transfer of a license to reproduce should in theory be imputed. Unfortunately, given the current data situation, identifying the point in time and value at which a transfer occurs is literally impossible. The only meaningful information that exists relates to flows of property income and FDI between the affiliate and the parent.

7.67 However, from a practical perspective, the decision to treat such transfers as licenses to reproduce perhaps minimises the impact on the accounts of not being able to measure the flows. In this case the only real impact need concern trade and GFCF figures. Trade figures are lower because they do not capture the export/import of a license to reproduce and GFCF figures in the parent company are lower and in the affiliate higher. Importantly however, not recording these flows will not affect GDP (although net domestic product will be affected). Total factor productivity estimates will also be affected but, in reality, such estimates are rarely produced using exhaustive estimates of
capital stock. Moreover, typically, estimates of originals produced on own-account tend generally to be very prudent – so, in practice, GFCF estimates in the affiliate are not likely to be overestimated despite not recording a reduction in value related to a ‘sale’ of a license to reproduce.

7.68 All of the above assumes that the IPP produced by the affiliate is capitalised before any subsequent transfer to the parent occurs. This neatly means that GDP estimates are unaffected and that only trade in existing assets and capital stock estimates are affected. If however the parent company pays for the development of the asset during its production with the specific intent to have it transferred on completion, the underlying trade is no longer restricted to existing assets but GDP estimates are again not affected. In any case identifying these payments from the parent company is literally impossible with current data sources and so it is simpler to assume that the transfer (and implicit related payments) only occurs after the IPP has been capitalised on the accounts of the affiliate.

7.69 There will be an impact on the recording of net lending estimates however. At present the acquisition of an asset by a parent from an affiliate is likely to be recorded (incorrectly) in the income account, with flows between the affiliate and the parent netting out so that the overall effects in the separate income accounts of the affiliate and the parent are zero with net-lending also unaffected. But the acquisition of the asset by the parent should in theory be recorded in the capital account. This means that net lending figures in the parent would be lower and in the affiliate, higher, if the acquisition was correctly recorded. This presupposes that the asset is transferred to the parent on completion. However the financing of the asset acquired by the parent may have occurred in earlier periods (via increased FDI for example) and so identifying the periods when net lending is affected is in the absence of data, impossible.

7.70 In summary, given the difficulties involved, the following could be assumed in practice, and form the basis of a research agenda:

- No imputation is needed in trade in goods and services, and, correspondingly,
- No imputation is needed to reflect the transfer of the asset as flows in pre-existing assets.
- Any charges for the use of the asset by the affiliate to the parent that are currently recorded as payments for the use of the asset in trade in goods and services should be reclassified to property income payments. If these charges are also included as positive contributions to GVA in the affiliate and negative contributions to GVA in the parent, it will also be necessary to treat these as income flows.
- Every attempt, using survey sources (see below) should be made to accurately reflect the value of the IPPs on the balance sheets of the affiliate and the parent. For the parent this will mean that a revaluation change occurs despite the fact that an underlying IPP asset was never recorded as being transferred or produced, which, although conceptually incongruous, is a practical compromise.

C. Summary proposal for transfers in IPPs between affiliates

7.71 For practical purposes therefore, concerning intra-company trade in IPPs, the following guidelines should be considered for further research:

- Transactions within MNEs relate to pre-existing assets. That is, assets that have already been created and reflected in the balance sheets of one affiliate prior to their transfer (in part or otherwise) to another.
- Transfers relate to transfers part of the original or licenses-to-reproduce and not the entire original or a copy of the original.
- The original value of the asset, when produced or purchased, should be assumed to reflect the rights to use the asset in all subsequent territories in which it is eventually used. This means
that any changes in the value of the original reflect revaluation changes, appearing on balance sheets, and not other changes in volume.

- If transactions between one affiliate and another for an IPP are recorded as payments for services provided by the original, these should instead be reclassified as finance lease payments related to the prior acquisition of a license-to-reproduce. For practical purposes they can be recorded simply as property income.

- Transactions in IPPs should be recorded within trade in goods and services of IPPs, as purchases and sales of pre-existing assets but it is accepted that the current scope for recording such transactions as such is limited. In the absence of dedicated surveys that capture these transactions they can be ignored with the associated flows instead recorded under property income.

- Estimates of IPPs on balance sheets should follow the principal that they are only partly transferred after they have been capitalised on the accounts of the affiliate that transfers them. Attempts should be made via dedicated surveys to correctly capture the value of these assets within affiliates in order to create balance sheets, estimates of GFCF, and in particular estimates of capital stock and KLEMS type productivity estimates.

7.72 The operational guidelines for treating flows between MNEs shown above are a pragmatic proposal to a very difficult measurement problem that currently exists. They provide a conceptual basis that minimises the impact of mis-measurement on the accounts by treating transactions between affiliates as transactions in pre-existing assets and by recommending that trade flows in these assets are ignored (or, for sake of argument, assumed to be of negligible value with revaluations subsequently occurring after transfers have occurred).

D. Proposing new surveys

7.73 Guidance on practical accounting rules is one part of an overall solution. But these need to be complemented with an arguably longer-term solution to design and collect information via new surveys on MNEs. The OECD Task Force on IPPs investigated this issue and developed a proto-type questionnaire, shown below, that could form an important input into research and testing of new surveys that directly tackle the question of IPP trade between affiliates. It was designed with the measurement of R&D in mind but it could just as easily apply to any IPP asset, and would need to be supplemented with additional questions on balance sheets of MNEs. Another possible future source for statistics on transfers of (completed or in-progress) R&D is Frascati Manual based surveys, assuming the definition of transfers in the Frascati Manual and SNA are reconciled in the future. R&D surveys could ask for the cost of producing R&D that is subsequently transferred outside the performing unit.
Annex 7.1

Extract from Draft Handbook on Deriving Capital Measures of IPPs

III. International trade in R&D services and R&D output produced in the past (such as patents) between (i) affiliated enterprises and (ii) non-affiliated enterprises (recurrent)

Questions for R&D survey respondents

1. International R&D transactions within your company
   A. Would your company be able to report payments for R&D performed for you by others within your company but located outside this country?
      i. transactions involving your foreign parent company
      ii. transactions involving other foreign members of your company
   B. Would your company be able to report revenues for R&D performed by you for others within your company but located outside this country?
      i. transactions involving your foreign parent company
      ii. transactions involving other foreign members of your company

2. International R&D transactions with others outside your company
   A. Would your company be able to report payments for R&D performed for you by others outside your company and also located outside this country?
   B. Would your company be able to report revenues for R&D performed by you for others outside your company and also located outside this country?
   C. Can you separate out R&D grants from contracts for R&D services?

3. International transfers of R&D or patents (inflow)
   A. Have you received free transfers of R&D or patents from the following sources?
      i. Your foreign parent company? (if applicable)
      ii. Other foreign members of your company (if applicable)
      iii. A foreign university or research institute?
      iv. A foreign government unit or international organization?
   B. Would you be able to estimate the production cost or value of these transfers?

4. International transfers of R&D or patents (outflow)
   A. Have you donated R&D or patents to the following recipients?
      i. Your foreign parent company? (if applicable)
      ii. Other foreign members of your company (if applicable)
      iii. A foreign university or research institute?
iv. A foreign government unit or international organization?

B. Would you be able to estimate the production cost or value of these transfers?

Questions for international services trade respondents

1. R&D services vs. other business and technical services - (one-off)
   A. Have you reported R&D services exports/imports to include transactions in the following services? (this question assumes R&D services is a survey category in your survey, otherwise skip)
   B.
   i. commercial testing services
   ii. software development services
   iii. engineering services
   iv. design services
   v. customer services (post-sales)
   vi. royalties and license fees
   C. Would you be able to separate out R&D services exports/imports from transactions involving the following services?
      i. commercial testing services
      ii. software development services
      iii. engineering services
      iv. design services
      v. customer services (post-sales)
      vi. royalties and license fees

2. International R&D transactions within your company
   A. Would your company be able to report payments for R&D performed for you by others within your company but located outside this country?
      i. transactions involving your foreign parent company
      ii. transactions involving other foreign members of your company
   B. Would your company be able to report revenues for R&D performed by you for others within your company but located outside this country?
      i. transactions involving your foreign parent company
      ii. transactions involving other foreign members of your company

3. International R&D transactions with others outside your company
   A. Would your company be able to report payments for R&D performed for you by others outside your company and also located outside this country?
   B. Would your company be able to report revenues for R&D performed by you for others outside your company and also located outside this country?
4. **International royalties, license fees for the use or sale of intangible property**

   Note: For the purposes of this question intangible property includes patents, trademarks, copyrights, and trade secrets.

   A. Total royalties, license fees, and other fees for the use of intangible property (IP), EXCLUDING cross-licensing:

      Payments
      Receipts
      of which:
      Industrial processes and products (except software licensing)
         Payments
         Receipts
      Software licensing
         Payments
         Receipts

   B. Total royalties, license fees, and other fees for the use of intangible property (IP), in a CROSS-LICENSING arrangement:

      Payments
      Receipts
      of which:
      Industrial processes and products (except software licensing)
         Payments
         Receipts
      Software licensing
         Payments
         Receipts

   Are these cross-licensing measures net or gross transactions with respect to cross-licensing? If net, could you estimate the gross value of these transactions?

   C. Total fees paid or received for the sale or purchase of intangible property (IP):

      Payments
      Receipts
      of which: industrial processes and products (except software)
         Payments
         Receipts
Questions for FDI survey respondents: new investments

These questions should be directed to either –

a) a local business enterprise when a foreign parent company establishes or acquires directly, or indirectly through an existing affiliate, a 10 per cent or more voting interest in that enterprise, or

b) existing affiliates of foreign parents when they acquire, or merge with, a local business enterprise, or a business segment or operating unit in the compiling country.

Have you or your foreign parent company engaged in the following investments in this country?

- Created a new legal entity, either incorporated or unincorporated, including a branch, which is organised and operating as a new business enterprise.
- Bought or secured a voting equity interest in a previously existing, separate legal entity that was already organised and operating as a business enterprise and it continued to operate as a separate legal entity, either incorporated or unincorporated, including a branch.
- Bought or secured a voting equity interest in a business segment or operating unit of an existing business enterprise, which is organised as a new separate legal entity, either incorporated or unincorporated, including a branch.
- Bought and merged another local business enterprise, or business segment or operating unit of a business enterprise, into your own operations rather than continuing or organizing it as a separate legal entity.

For M&As of existing businesses, would you be able to report the magnitude of the following items (where applicable) at the time of the M/A?

- employment
- R&D expenditures
- stock of patents issued
- stock of patent applications

For newly established businesses, would you be able to report: (one-off)

- if the new business is intended for R&D performance?
- if you plan to sell or license R&D to the new business?
- if you plan to sell or license patents to the new business?
- if you plan to transfer (for free) R&D or patents to the new business?
CHAPTER 8

Labour mobility

(to be inserted after the April 2010 Meeting)
CHAPTER 9

Remittances

I. Introduction

9.1 Cross-border remittances – household income from foreign economies arising mainly from the temporary or permanent movement of people to those economies – have grown rapidly in recent years. International Monetary Fund (IMF) estimates show their global value (measured as global receipts of “workers’ remittances” and “compensation of employees”) in United States dollars as rising from $143 billion in 2002 to $388 billion in 2008 or at an average annual rate of 18 per cent (table 9.1). Some of the increase may reflect valuation effects due to price and exchange rate movements and some may be an artifact of better measurement but much of it is real largely the result of increased international migration and declining transfer costs. Although remittances are not necessarily connected to migration in practice most remittances are accounted for by funds sent by migrants to relatives in their countries of origin. Because of this the largest migration corridors—Mexico to the United States and other Commonwealth of Independent States (CIS) countries to Russia for example—also tend to be the most important corridors for remittance transfers although nations with large and widely disbursed migrant populations such as India and China are also major remittance recipients (charts 9.1 and 9.2).

9.2 As they have increased in size remittances also have increased in importance at both individual and national levels. For individual recipients remittances are often a significant source of household income providing support for consumption education healthcare and potentially a path out of poverty. For individual senders remittances represent an important link with family in the home country. At the national level in addition to supporting household consumption remittances may be an important source of foreign exchange for net receiving nations. For net sending nations the majority of which are more developed remittances represent resource transfers to developing nations. Remittances can thus be seen as a type of development and humanitarian assistance which can be considered in conjunction with government aid private investment and other resource flows in evaluating needs for aid.

9.3 Remittances vary widely in their importance to national economies which may lead to differences in the emphasis given by national statisticians to measuring and monitoring them. For net sending nations the amounts transferred may be large in absolute terms but their importance relative to total economic activity generally is small. For the United States for example outflows of workers’ remittances and compensation of employees were $48 billion in 2008 but that amount was only a fraction of 1 per cent as large as United States Gross domestic product (GDP) in that year. For net receiving nations the situation often is reversed. Moldova for example reported only $2 billion for 2008 as inflows of workers’ remittances and compensation of employees but that amount was one-third as large as its total GDP in that year.

48 This definition is from Appendix 5 of the International Monetary Fund (IMF) Balance of Payments (BoP) and International Investment Position Manual, sixth edition. As will be discussed later, although most remittance flows arise from the movement of persons, some do not. However, all remittances and remittance-type flows are intended to benefit households, either directly or indirectly.
### Table 9.1

**Compensation of employees and workers' remittances 2002-2008**  
(Millions of U.S. dollars)

<table>
<thead>
<tr>
<th>Year</th>
<th>Compensation of employees Credit</th>
<th>Compensation of employees Debit</th>
<th>Workers' remittances Credit</th>
<th>Workers' remittances Debit</th>
<th>Global discrepancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>49 475</td>
<td>57 312</td>
<td>93 288</td>
<td>77 821</td>
<td>-15 467</td>
</tr>
<tr>
<td>2003</td>
<td>60 084</td>
<td>67 926</td>
<td>113 961</td>
<td>81 389</td>
<td>-32 572</td>
</tr>
<tr>
<td>2004</td>
<td>71 664</td>
<td>77 679</td>
<td>127 521</td>
<td>91 725</td>
<td>-35 796</td>
</tr>
<tr>
<td>2005</td>
<td>78 592</td>
<td>86 646</td>
<td>166</td>
<td>99 458</td>
<td>-66</td>
</tr>
<tr>
<td>2006</td>
<td>86 354</td>
<td>118 026</td>
<td>199 124</td>
<td>118 026</td>
<td>-81 098</td>
</tr>
<tr>
<td>2007</td>
<td>105</td>
<td>138</td>
<td>240</td>
<td>138</td>
<td>-101</td>
</tr>
<tr>
<td>2008</td>
<td>120</td>
<td>164</td>
<td>267</td>
<td>154</td>
<td>-112</td>
</tr>
</tbody>
</table>

**Global discrepancy**

<table>
<thead>
<tr>
<th>Year</th>
<th>Sum of compensation of employees and workers' remittances Credit</th>
<th>Sum of compensation of employees and workers' remittances Debit</th>
<th>Global discrepancy</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>142 763</td>
<td>135 133</td>
<td>-7 630</td>
</tr>
<tr>
<td>2003</td>
<td>174 045</td>
<td>149 315</td>
<td>-24 730</td>
</tr>
<tr>
<td>2004</td>
<td>199 185</td>
<td>169 404</td>
<td>-29 781</td>
</tr>
<tr>
<td>2005</td>
<td>244</td>
<td>186</td>
<td>-58</td>
</tr>
<tr>
<td>2006</td>
<td>285 478</td>
<td>214 208</td>
<td>-71 270</td>
</tr>
<tr>
<td>2007</td>
<td>345</td>
<td>252</td>
<td>-93</td>
</tr>
<tr>
<td>2008</td>
<td>388</td>
<td>291</td>
<td>-96</td>
</tr>
</tbody>
</table>

**Source:** IMF International Transactions in Remittances: Guide for Compilers and Users 2009 updated with data from the IMF’s BoP Database.

**Note:** This table uses BoP Manual (fifth edition) definitions. In particular “workers' remittances” is defined as current transfers from employment income by migrants who are employed in new economies and considered residents there. In the list of standard components for the BoP accounts “workers' remittances” has been replaced in the sixth edition by “personal transfers” a somewhat broader concept.

9.4 Although remittances are increasingly important to many economies accurate measurement of remittances remains difficult. The difficulties in measurement can be illustrated by the large discrepancy between global receipts (credits) and payments (debits) of remittances. Although in reality and by any definition the amounts sent and received are the same estimates of remittances based on reported payments tend to be considerably smaller than estimates based on reported receipts. In 2008 for example reported payments at $291 billion were only about three-fourths as large as reported receipts. Such differences suggest that at least some statistics on remittances lack the minimal level of reliability required for them to serve their intended purposes. They also may result in differences in perceptions about the adequacy of remittances as a source of assistance and of the need for other types of resource flows.
9.5 Two main factors have complicated the measurement of remittances—differing definitions and difficulties in capturing the transactions. The problem of differing definitions has recently been addressed through the publication of standard statistical definitions in two IMF guidebooks the sixth edition of the Balance of Payments and International Investment Position Manual and International Transactions in Remittances: Guide for Compilers and Users. Over time these should result in greater consistency in definition. Historically however research and reports on remittances have often included as “remittances” one or more items not covered by the new definitions such as money brought home by returning migrants funds sent by migrants back to their countries of origin to purchase real estate invest in local businesses or otherwise for the migrant’s own account and the estimated value of volunteer time spent on international programs. In some cases
the definition employed has depended on the use of the statistics or on data availability. Economic accountants require a definition that is compatible with the rest of the national accounting framework and thus are concerned with details such as the residency status of the sender and the absence of a quid pro quo. Government aid officials and development professionals are often more concerned with total resource flows between countries regardless of the residency of the sender or the presence or absence of a quid pro quo to show the economic impact of these flows on sending and receiving nations.

9.6 With regard to data capture because of the small size of individual transactions and the sometimes uncertain status of those who make them remittances data are difficult to collect using traditional methods. Individual remittance transactions often fall below reporting thresholds for banks and other financial institutions and thus cannot be identified within the reported data. Money transfer operators the preferred vehicle of transfer for many migrants may only settle net payments though the banking system making it difficult to identify the underlying gross receipts and payments. In addition remittance transactions are often effected outside the formal financial system such as through hand-carry by returning migrants and workers or through unlicensed transfer businesses both of which usually bypass formal reporting systems. Capturing data via household surveys may also be difficult especially in nations where large portions of the migrant population lack legal status. Faced with these numerous and varied difficulties in data collection some countries have chosen to estimate remittances using statistical modeling techniques that do not attempt to capture and sum individual transactions but rather combine sample information on or assumptions about remittance behavior by various demographic groups with information on the populations belonging to each group.

9.7 This chapter will describe recent efforts to address conceptual definitional and measurement challenges with regard to remittances and will discuss challenges that remain. It will proceed as follows. The next section will provide background on the commonly used definitions of remittances and will review the new definitions provided in the sixth edition of the International Monetary Fund’s Balance of Payments and International Investment Position Manual (BPM6) and in the companion guidebook International Transactions in Remittances: Guide for Compilers and Users (Guide). Section 3 discusses conceptual issues that may arise in defining and measuring remittances and the problems that mismeasurement may cause for national accounts. Section 4 outlines the practical measurement problems facing compilers. Section 5 offers suggestions for ways to overcome compilation difficulties and section 6 concludes with a discussion of ongoing activities and recommendations for future work.

II. Background – development of guidelines

9.8 Because they represent international transactions remittances have long been addressed in the balance of payments framework. The fourth edition of the Balance of Payments Manual (BPM) published in 1977 included the item “worker’s remittances” defined as “unrequited transfers by those migrants (persons who have come to an economy and who stay or are expected to stay for a year or more) employed in their new economy.” This item with the definition slightly altered to state explicitly that the item pertains only to current transfers remained the single component specifically associated with remittances in the fifth edition of the Manual published in 1993.

9.9 In the 1990’s as global migration increased transfers from migrants became increasingly important to many national economies prompting government policymakers development officials and national compilers to focus increased attention on the size and nature of remittance transfers. The balance of payments item “worker’s remittances” provided some information but it did not completely cover the wide variety of remittance-
type transactions occurring between nations. Worker’s remittances is limited to current transfers by employed permanent migrants and thus excludes current transfers by non-migrants and by unemployed migrants as well as any household-to-household capital transfers. It also excludes the resource flows to countries of origin that result from employment of their residents in other countries as well as transfers made not directly to households but to nonprofit institutions that serve households.

9.10 To construct a broader measure of remittances analysts have often combined workers’ remittances with two other items from the balance of payments—gross compensation of nonresident employees and migrants’ transfers. As discussed later, under BPM6, migrants’ transfers are no longer regarded as balance-of-payments transactions.

9.11 Rather than use balance of payments statistics public and private agencies and organizations have sometimes compiled their own estimates of remittances occasionally by surveying migrant or recipient populations. These surveys have employed a variety of definitions of remittances and may sometimes have captured transactions that would not universally be regarded as within the scope of the remittances concept such as real estate purchases, business investments and savings which involve funds sent abroad but which are not transfers. One such broader estimate of cross-border giving has reflected the value of time spent by volunteers on international programs which represents assistance by residents of one country to residents of another but lies outside the scope of standard economic accounts.

9.12 The use of multiple compilation methods each of them reflecting a different collection of transactions has produced vastly different estimates of remittances. The wide variety of estimates has created confusion and uncertainty over their importance relative to other flows and their impact on sending and receiving nations.

BPM6 - a standardised definition

9.13 The development of a standard balance of payments definition of remittances began at the Sea Island Summit in 2004 where Group of Eight (G8) participants acknowledged the rapid growth and developmental impact of remittances in the action plan Applying the Power of Entrepreneurship to the Eradication of Poverty. The plan highlighted the need for better statistics on remittances and called for the G8 countries to “work with the World Bank IMF and other bodies to improve data on remittance flows and to develop standards for data collection in both sending and receiving countries.” This statement led to the creation of the United Nations Technical Sub-group on the Movement of Natural Persons (TSG) which worked in consultation with the IMF Committee on BoP Statistics and the Advisory Expert Group on National Accounts to clarify the definition of remittances. The TSG’s recommended definitions have been incorporated in BPM6. Following the adoption of these definitions a working group which came to be known as the Luxembourg Group was formed under the auspices of the IMF to develop a compilation guide based on the BPM6 definitions. The resulting Guide provides further detail on the

49 As discussed later, under BPM6, migrants’ transfers are no longer regarded as balance-of-payments transactions.

50 See Hudson Institute, The Index of Global Philanthropy, 2008. This report gives $2.2 billion as a lower-bound estimate of the value of such time spent by United States volunteers in 2006.
nature of remittances and outlines several compilation methodologies. The Guide’s recommendations will be discussed further in Section 5.

9.14 BPM6 introduces four increasingly broad categories of remittances (see Table 9.2).51

9.15 Personal transfers are a standard component of the balance of payments framework. Personal remittances total remittances and total remittances plus transfers to non-profit institutions serving households (NPISHs) are supplemental items. This structure allows compilers to publish a variety of remittance measures without altering the central balance-of-payments framework although they may need to alter their data collection to align with the new guidelines.

Table 9.2
Remittance concepts in BPM6

<table>
<thead>
<tr>
<th>Total remittances and transfers to NPISHs: a+b+c+d+e+f</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total remittances: a+b+c+d</td>
</tr>
<tr>
<td>Personal remittances: a+b+c</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Personal transfers (part of current transfers)</th>
<th>Compensation of employees less taxes and social contributions</th>
<th>Capital transfers</th>
<th>Social benefits</th>
<th>Current transfers to NPISHs</th>
<th>Capital transfers to NPISHs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal transfers</td>
<td>Compensation of employees less taxes</td>
<td>Capital transfers</td>
<td>Social benefits</td>
<td>Current transfers to NPISHs</td>
<td>Capital transfers to NPISHs</td>
</tr>
<tr>
<td>(part of current transfers)</td>
<td>less taxes</td>
<td>between households</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>social contributions</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>transport and travel</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Abbreviations: Capital transfers to NPISHs

Note: “Travel” as used in column b is as defined in BPM6 to include food lodging and other goods and services acquired for personal use by seasonal border and other short-term workers who are not resident in the economy in which they are employed.

9.16 These concepts provide a broader and more fully articulated framework for the analysis of remittances than was available under BPM5. The narrowest remittance measure personal transfer retains a focus on individual transfers from residents similar to that of the BPM5 concept of workers’ remittances. However it places the focus on the household-to-household nature of the transactions rather than on the employment status of the sender. Personal transfers include additional types of household-to-household transfers—such as transfers from non-migrants and non-workers—that are excluded from workers’ remittances.

9.17 The next item personal remittances broaden the scope of the concept by adding household-to-household capital transfers and the net compensation of nonresident workers. Personal remittances approximate the commonly used calculation of remittances discussed above although it does not include migrants’ transfers which under BPM6 are no longer regarded as transactions in the balance of payments.52 See Annex 9.1, “Cross-Border...
Remittance Statistics in Russia” for a more detailed examination of the differences between the BPM5 and BPM6 remittance statistics using Russian data.

9.18 The final two items incorporate social benefits and transfers to NPISHs. These transfers are not commonly thought of as remittances but they are conceptually similar as they provide direct support to households abroad. These broadest definitions are of interest to those wanting to determine the total amount of support provided to the households of one nation by those who are residing or working in another.

9.19 While no country currently publishes the full array of new remittance measures many countries publish remittance-related components usually including a measure of personal transfers (with many countries still showing “workers’ remittances” as defined under BPM5) and gross compensation of employees. Available data suggest that for many countries personal transfers are the largest component of remittances reflecting the broad base of potential senders and recipients and the social and economic importance of these transfers. For example for India and the United States the largest receiving and sending nations personal transfers account for the majority of remittance flows (charts 1 and 2). However in some countries particularly those with a sizeable population of border workers a large guest worker program or membership in an economic area that provides for labor mobility within the area compensation of employees is the largest component. This is the case for example for inflows to France, Germany, and Belgium and outflows from the Russian Federation, Switzerland, Germany, and Luxembourg. The relative importance of personal transfers and compensation may differ between receipts and payments.

9.20 Social benefits are likely the smallest component of total remittances reflecting the relatively small population of long-term employees who return to their country of origin or retire abroad. Data from the United States Social Security Administration for example indicate that United States Social Security payments made to beneficiaries outside the United States totaled $3 billion in 2008 which accounted for only a small fraction of the value of United States remittances components that can be separately identified. The relative importance of transfers to NPISHs is determined mainly by the size of the non-profit sector which varies across countries.

9.21 In addition to those items included in the definition of remittances BPM6 also highlights the analytical importance of two additional remittance-related data series: investment by migrants and travel. These items do not provide support directly to households but they represent additional channels through which national economies interact with their migrant populations. Other potentially important data series are telecommunications and trade in home-goods (goods such as foods that migrants import or have shipped from relatives back home).

III. Statistical treatment recommended in international standards - conceptual issues

9.22 The release of BPM6 and the Guide represent major advances in defining remittances and in providing statistical guidelines both of which should result in higher quality, better understood, and more internationally comparable statistics. However the fact that multiple remittance concepts made up of components that are treated quite differently in economic accounts are presented calls for extra care in interpretation and in communications with data users. Table 9.3 shows the components required for compiling involve changes in ownership, be excluded from merchandise and other accounts, placing both those accounts and the account for transfers (secondary income) on a conceptually more correct basis.
the different remittance measures and the different accounts from which they are constructed.

9.23 Taken together the various remittances concepts draw upon four different balance of payments accounts: (1) goods and services (2) primary income (3) secondary income and (4) capital account. As noted in BPM6 (para. 2.13) “[t]he different accounts within the balance of payments are distinguished according to the nature of the economic resources provided and received.” These differences also are recognised in national accounts and as a result the nature of any distortions in national accounts that may be caused by inaccuracies in the measurement of remittances can differ depending on which remittance component or components are mismeasured.

9.24 Compensation of employees for example affects GDP primary income and disposable income in the home country (the country of permanent residence of the workers) but not in that of the host country (the country where they work). Thus if it is mismeasured (or unrecorded) these items also will be mismeasured as will be saving—computed as the residual of disposable income and final consumption expenditures. Personal transfers in contrast are not reflected in GDP or in primary incomes but they do affect disposable income. If they are mismeasured GDP will be unaffected but there will be errors in the measurement of disposable income and saving. Capital transfers are not reflected in GDP or in measures of income but they do result in changes in national balance sheets for both donor and recipient economies which would thus be distorted by their mismeasurement.

Table 9.3
Components required for compiling remittance items and their source: item and description

<table>
<thead>
<tr>
<th>Item</th>
<th>Source and description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Compensation of employees</td>
<td>Primary income account standard component</td>
</tr>
<tr>
<td>2. Personal transfers</td>
<td>Secondary income account standard component</td>
</tr>
<tr>
<td>3. Travel and transport related to employment of border seasonal and other short-term workers</td>
<td>Goods and services account supplementary item</td>
</tr>
<tr>
<td>4. Taxes and social contributions related to employment of border seasonal and other short-term workers</td>
<td>Secondary income account supplementary item</td>
</tr>
<tr>
<td>5. Compensation of employees less expenses related to border seasonal and other short-term workers</td>
<td>Primary income account (for compensation of employees) standard component</td>
</tr>
<tr>
<td></td>
<td>Goods and services account (for travel and transport expenses) and secondary income account (for taxes and social contributions) supplementary items</td>
</tr>
<tr>
<td>6. Capital transfers between households</td>
<td>Capital account supplementary item</td>
</tr>
<tr>
<td>7. Social benefits</td>
<td>Secondary income account supplementary item</td>
</tr>
<tr>
<td>8. Current transfers to NPISHs</td>
<td>Secondary income account</td>
</tr>
</tbody>
</table>
9. Capital transfers to NPISHs  

Source: Table A.5.1 in Appendix 5 of BPM6.

9.25 These differences in effects are a reflection of the fact that “remittances” is not a national or international accounts concept but rather represents a grouping together of a variety of items from these accounts in an effort to measure the sum total of country-to-country flows through which individuals or organizations residing or working in one country benefit households of another country. Because of the differences for some purposes it may be useful to view the remittance aggregates in conjunction with information on their components given the rather fundamental differences among the components in their economic nature. It may be particularly desirable to have information on net compensation of employees separately from that on the various items of transfers since compensation alone represents income generated by productive activities of the recipient countries’ own residents.

9.26 From time to time questions have arisen about several items that are excluded from total remittances but that are sometimes considered in a remittances context. It will be useful to review these not to call into question the internationally agreed concepts and definitions but rather to explore the boundary between remittance and non-remittance flows and because they are sometimes viewed in conjunction with the included items in studies and reports on international philanthropy and development assistance. In general their effect is to broaden the remittance concept.

9.27 Transfers to NPISHs are not included in the BPM6 measure of total remittances yet these transfers may differ from household-to-household transfers only in the sense that intermediary institutions are involved in mediating funds that are donated by households in one country with the intent of benefitting households in another country. Among the items that have been excluded from total remittances these transfers perhaps have the most in common with the included items and their significance and relevance has been recognised by the new standards even if they have not been included in the core remittance aggregates.

9.28 The value of volunteer time spent on international programs likewise represents benefits provided by residents of one country to residents of another. However this value lies outside the scope of conventional economic accounts and therefore has not been recognised in statistical guidelines even as a related concept.

9.29 Investment by migrants in their countries of origin is recognised by BPM6 as a “related concept” but it is excluded from all of the remittances measures suggested in it and in the Guide. The presence of a quid pro quo or the fact that such investment is included in the financial account could be argued as justifying the exclusion (although a quid pro quo (namely labour services) is present in the case of compensation of employees). However migrants’ investments may be in businesses that provide relatives or others in their countries of origin with employment opportunities and thus may benefit home-country households as well as the emigrant investors residing abroad. Thus while migrants’ investments in their countries of origin are excluded from the statistical measures of remittances it must be acknowledged that they can have much in common with components that are included.

53 BPM6 does acknowledge that investment may be a “vehicle” for remittances in cases where relatives live rent-free in migrant-owned real estate, or are paid above market wages by migrant-owned businesses. In cases where these trends are known to compilers, estimates may be made to account for the remittance portion of these transactions.
9.30 Financial and nonfinancial assets of returning migrants are likewise excluded from all of the remittances measures on the grounds that they lie outside the current balance of payments framework. However including the earnings of workers who stay abroad for less than a year and excluding the accumulated assets of workers who stay for a year or more before returning home may strike some as an arbitrary distinction especially when only small differences in length of stay are involved. Perhaps reflecting this view these values may sometimes be considered in a remittances context even though they lie outside the standard definitions.

9.31 Corporate giving raises equally difficult questions. A pharmaceutical firm’s donation of medicines to a foreign relief organisation could be included in current transfers to NPISHs (which are not limited to transfers made by households). However what should be the treatment if the firm sold the medicines in developing countries at discounted prices or even below-cost? Economic accounting guidelines recommend recording transactions at market prices so one might argue that the transaction should be adjusted up to market price and the discount shown as a type of transfer relevant to remittances. However the price received may be only a partial measure of the value of the sale to the firm which may be rewarded for its benevolence through the accumulation of goodwill or the avoidance of regulations or price controls. In some cases discounting may simply represent the profit-maximising actions of a price discriminating monopolist exploiting demand differences in distinct markets. Perhaps reflecting these considerations as well as practical difficulties in data collection the value of this form of giving has not been recognised as a remittance component in the new international guidelines.

9.32 Different sorts of questions about corporate giving arise when the giving is done not across the border but rather through affiliates located in recipient countries. Because foreign affiliates are treated in economic accounts as resident in their countries of location rather than in the countries of their owners, their donations in host countries are treated as between residents and thus outside the balance of payments framework. Yet to the extent that the giving raises the foreign affiliate’s costs and lowers its profits the income received by the home-country parent firm would fall making the cost to it of the donation much the same as if it had made the donation directly.

9.33 From these examples it is clear that the remittances concept is among the more difficult economic constructs to define and interpret. While the new guidelines have done much to clarify and expand remittance concepts the complexity of the concept and multiple potential uses of the data mean that conceptual difficulties remain.

IV. Measurement problems - difficult to capture

9.34 Layered atop these numerous conceptual issues is an equally varied array of measurement challenges most of them relating to the personal transfers component. Personal transfers are typically small household-based on both the sending and receiving ends and capable of being sent through a wide variety of channels making them difficult to capture using traditional methods of collection. Additional factors such as the legal status of the remitting population, the financial infrastructure of the nation, and residence of the sender also complicate the capture of personal transfers’ data.

9.35 In most countries individuals have many options both formal and informal for sending personal transfers.\(^{54}\) Widely used formal methods of sending monetary transfers include banks credit unions and licensed money transfer operators (MTOs). Funds sent

\(^{54}\) For a more comprehensive discussion of remittance channels, see the Guide.
through these channels enter the formal financial system and can be captured along with other types of financial flows. However entry into the financial system does not completely eliminate the collection difficulty. Remaining issues include identifying gross flows (many institutions net their international transactions) determining the primary source and destination of the transfers and distinguishing between personal transfers and other small financial transactions.

9.36 Informal methods of monetary transfer include hand-carry either by the senders themselves or through family members or friends transfers through unlicensed MTOs and hawala or similar area-specific informal systems. When sent through these channels the transferred funds do not enter the formal financial system and bypass most established data collection points: money carried across a border often does not have to be declared below a certain threshold unlicensed MTOs may operate outside of the banking system and hawala does not involve actual cross-border payments between households. Collecting data on transfers made through informal channels requires targeted methods such as surveys of the sending or receiving populations. Statistical modeling may also help to overcome these difficulties.

9.37 In-kind transfers may also flow through formal or informal channels although it is generally believed that most in-kind transfers travel through informal channels. Formal methods of transfer include declared shipment via post or with a registered exporter. Informal methods include hand-carry and undeclared shipment via cross-border passenger or transport vehicles. Compared to money transfers data collection for in-kind transfers faces an additional complication: determining the value of the remitted items. Formal shipments should have a declared value; however because of their small size they may fall below reporting thresholds. It may also be difficult to distinguish in-kind transfers from other small shipments. Informal shipments are not only difficult to track; they face the additional problem of valuation.

9.38 A number of factors including geography financial infrastructure cost and history may contribute to the choice of one transfer channel over others. Transfers between nations with a shared geographic border especially a relatively open border are more likely to be transmitted by hand or through established informal travel and trade routes. Financial infrastructure such as the prevalence of banks in both nations and the ease of opening an account affects the use of bank transfers. The cost of sending a transfer is also a consideration although so too is the convenience for both sender and recipient. International efforts made in recent years to decrease the cost of transferring through formal channels have led to an increase in the use of these channels. Finally the familiarity and trust that the sender and recipient have in a transfer company or method is also an important factor; remitters are often highly loyal to their chosen transfer method.

9.39 The combined effects of all of these factors are reflected in the choice of transfer channel. In some nations this may result in a single channel dominating the market potentially simplifying data collection as efforts can be focused on a single market segment. In nations where a variety of easily accessible transfer methods are available and no single channel dominates data must be collected from multiple market segments or through other methods such as surveys of senders or recipients.

9.40 Factors other than the transfer channel also complicate measurement. The legal status of the migrant population is one factor; illegal residents may be more likely to use informal channels and are often difficult to contact or survey. Nations that are international

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55 Hawala is a method of transfer, well established in Islamic communities, where instruction on payment, rather than the money itself, is sent across borders.
banking centers may have funds sent from third countries transit through their banking system creating noise in the financial-flows data. Finally no matter the channel it is difficult to determine length of residency of the sender a key factor in distinguishing between personal transfers and compensation of employees.

9.41 Measuring transactions in the broader remittance categories is also difficult. Although there may be official data associated with visa or tax records the question of residence complicates the collection of data on compensation of employees. Additional complications arise if there is a large non-legal migrant workforce or in nations with open guest worker programs. Social benefits and transfers to NPISHs are likely to flow exclusively through formal channels; however identifying these flows may be difficult. Data on social benefits largely issued by the government may be available through official records although identifying and obtaining data from all potential benefit sources may complicate data collection. The difficulty of collecting data on transfers to NPISHs depends on the source of the transfer. As with personal transfers small transfers from households will be difficult to identify whereas large transfers from well-known charities or foundations will be more easily captured.

V. Proposals for operational treatment in the accounts

9.42 The Guide outlines four principal methods for compiling data on remittances: extracting the data from international transactions reporting systems (ITRS) direct reporting by MTOs household surveys and model-based methods. Each of these approaches focuses on data capture from different segments of the remittance market and each has strengths and weaknesses in terms of coverage cost and feasibility. Data compilers can use these methods singly or in combination; as the collection issues outlined above illustrate remittances can take many forms and more than one method is often needed to construct comprehensive estimates.

9.43 An ITRS regularly collects data from banks and enterprises on transactions with non-residents. These systems often grew out of foreign exchange control systems and today are commonly used to collect data on international financial transactions. ITRS systems vary in their degree of coverage ranging from those that attempt to capture all transactions individually regardless of size to those that collect detailed data from only the major transactors and allow aggregated reporting for small transactions. They also vary in timeliness; data may be reported electronically at the time of transaction or manually at less frequent intervals. For collecting remittance data more detailed timely reporting is of course preferable. However collecting data on remittances is not the primary purpose of ITRS systems and the systems often cannot be altered to fit the needs of remittance data compilers.

9.44 Where they exist, ITRS can be an important source of data on remittances sent through formal channels including licensed MTOs whose international transactions are often conducted through the banking system. Because the ITRS system is already in place and legally enforced this method of data collection usually is highly cost-effective and accurate. IRTS data are also comprehensive in that they cover all categories of remittances sent through formal channels including social benefits and transfers to NPISHs.

The Latin American Center for Monetary Studies has also issued a guide, Best Practices for the Compilation of International Remittances, 2006. This guide is primarily intended for Latin American countries, but a number of its recommendations can be applied more broadly.
ITRS however often cannot provide the level of detail required by compilers. In systems with reporting thresholds a significant portion of the data on remittance flows may not be collected. Within the data that are captured it may be impossible to distinguish remittances from other small transactions or to distinguish among the different categories of remittances especially in systems that allow for the aggregation of transactions. Because ITRS only captures those transactions actually settled through the financial system the data will not reflect the gross flow of remittances if institutions net their transactions prior to settlement. In addition in nations that are international banking centers ITRS may over-report remittances to the extent that these transactions transit through the nation’s financial system. Finally by nature ITRS does not capture informal or in-kind transfers both of which are substantial in many nations.

Another method of data collection is a direct survey of MTOs. This method is similar to ITRS in that the data are reported by a financial intermediary rather than by the sender or recipient. Unlike ITRS the direct survey method gives compilers control over the level of detail collected allowing them to overcome some of the problems encountered when using ITRS. Specifically compilers can request that MTOs report gross rather than net transactions and can set thresholds low enough to capture the majority of remittance transactions. In nations where MTOs are required to collect information on the purpose of transactions compilers may be able to collect data on remittances separately from other small transactions. Compilers may also be able to collect information on the cost number and frequency of transfers which is useful in understanding the nature and impact of remittances. If MTOs are the dominant transfer vehicle a direct survey may allow compilers to collect the majority of transfer data in an accurate timely and cost-effective manner. The case study “Cross-Border Remittances Statistics in Russia” (Annex 9.1) presents data on personal transfers to and from Russia collected via a survey of MTOs.

Despite these advantages data collected from MTOs are unlikely to capture the full range of remittance-type transactions. MTOs are primarily a vehicle for personal transfers and cannot serve as a source of data on the other components of remittances. Short-term workers may remit some of their compensation through MTOs prior to their return home. However, these transfers are considered part of compensation of employees and it is unlikely that MTOs will be able to distinguish between transfers made by short- and long-term migrants. A survey of MTOs will not capture informal and in-kind transfers. Finally where information on the purpose of the transfer is not collected MTOs will be unable to distinguish personal transfers from other small financial transactions. To overcome these final complication compilers may conduct periodic sample surveys of MTO users to determine what percentage of transactions are transfers.

Moving from surveys of financial intermediaries to surveys of senders and recipients leads to the method that may have the potential to produce the most comprehensive and detailed remittance statistics—a household survey. Focused on the units whose support is at the heart of the remittances concept a well-designed household survey can collect data on all transfer channels and all remittance categories although some categories can only be collected from recipients. Household surveys can collect receipts and payments of personal transfers net compensation of employees (provided the worker or

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57 The Guide notes that this method can also be applied to other remittance intermediaries, such as banks and hawala operations.
58 National regulations, particularly those focused on anti-money-laundering and combating the financing of terrorism, often determine what information MTOs are required to collect from their customers.
59 Another option is to assume that all transactions below a certain dollar amount are personal transfers, although this usually can be expected to overstate remittances.
some member of his or her household is present in the economy when the survey is conducted) and transfers to NPISHs. However information on social benefits is only available from recipient households and surveys of households will not cover institutional payments to NPISHs. Household surveys can also collect supplemental data on the demographic profiles of senders and recipients and on the use and impact of remittances. The case study “Labour migration survey in Ukraine” (Annex 9.2) presents data on remittance flows and the demographic profile of remitters collected on a household survey conducted by Ukraine.

9.49 There are however significant difficulties in implementing household surveys. One of the most important is cost which increases with the sample size. In most countries migration is a relatively rare event necessitating a large sample size to ensure that the survey captures a representative group. One way of mitigating this cost is to build a focused sample frame by including a test question on an existing survey to identify households engaged in remitting. Another is to limit the scope of the survey to only those aspects of remittances that cannot be collected via other methods.

9.50 Household surveys are also particularly vulnerable to reporter error. Such errors may be unintentional resulting from a lapse in memory or misunderstanding of the survey questions. Carefully constructed survey questions that clearly explain the types of transactions and time period for which data are being collected can diminish these errors although additional questions will also increase costs. Reporter errors may also be intentional especially when the questions concern finances. Remittance senders may overstate the amount of transfers sent in an attempt to make themselves appear more generous while recipients may understate their receipts to prevent additional taxation or for security reasons.

9.51 Other disadvantages of household surveys include the lack of timeliness and difficulties in surveying unauthorized transitory or seasonal populations. The difficulty in surveying the migrant population may make household surveys a less useful tool in migrant-receiving countries than in migrant-sending countries.

9.52 The final method of compilation the model-based approach moves away from collecting data on actual transfers and instead uses information on other economic and demographic factors to estimate remittance flows. Models offer a cost-effective way to compile comprehensive statistics particularly in nations where remittances flow through many channels. Although they are most commonly used to compile statistics on personal transfers models can also be designed to cover other remittance categories.

9.53 There are two main modeling approaches econometric and demographic. Econometric models construct a mathematical relationship between remittance flows and various explanatory variables such as GDP per capita income the exchange rate interest rate and size of the migrant population. Demographic models take demographic data collected in censuses or other surveys and apply either an average amount remitted or a percentage of income remitted to the relevant population. For implementation both types of models require some information about the size and characteristics of remittance transfers; however this information can come from a one-time or infrequent survey partner country data or academic studies greatly reducing the burden of data collection. The case study “Estimates of Remittances in the Czech Republic” (Annex 9.3) outlines the demographic model used by the Czech Republic to estimate remittances and the case study “Bulgarian experience in

60 Transfers from domestic NPISHs to foreign NPISHs or foreign households may be collected on a survey of NPISHs.
61 A third method, the residual model, assumes that remittances account for the majority of imbalances in financial flows.
developing estimates for remittances” (Annex 9.4) details the model used by Bulgaria to estimate compensation of employees.

9.54 As with the other methods there are weaknesses in the model-based approach. Because models are built around the assumption of fixed relationships among variables they are especially vulnerable to changes in patterns of remitting behavior. Models are also highly reliant on good source data. This is a particular concern for demographic models in nations where there is a large unauthorized population for which it may be difficult to obtain accurate data. Finally because the resulting estimates are not based on actual flows model outputs are difficult to verify.

9.55 In addition to these four compilation methods remittance-related data especially for the broader components may also be available from other sources. Government agencies managing visa and social security programs often have administrative data on visa holder’s employers or social security payments abroad that compilers can use to construct compensation and social benefit estimates. Data on social benefit payments may also be available from public financial or tax filings of firms or pension companies. In some nations private firms or non-profit organizations conduct research into migrant populations private giving or other aspects of remittances the results of which may be available to compilers.

9.56 Nations may also be able to set up data exchanges with major remitting partners to collect data they are not able to collect themselves. The adoption of BPM6 guidelines should increase the opportunities in this area by providing a set structure for organising and publishing remittance estimates allowing nations to check their remittance figures against those of their major partners. A supply and use framework may be useful in making these comparisons and testing the assumptions made in estimating remittances and related national accounts.

9.57 To determine which method or combination of methods is most appropriate for a nation data compilers must be knowledgeable about their remittance market including the prominent transfer channels and the characteristics of the involved population. In nations where significant amounts of remittances travel through informal channels a survey of MTOs will not provide a complete measure of personal transfers. Nations with a substantial unauthorized population will have difficulty using household surveys. To a large extent knowing the market determines the collection method. Mexico for example combines direct reporting from MTOs and financial institutions with estimates of hand-carried transfers based on a monthly survey of international travelers. This method captures data on the two major transaction channels for transfers to Mexico.62

9.58 Different methods are also often needed to collect data on different remittance categories. Although some nations may be able to collect the majority of personal transfers data from MTOs other methods will need to be employed to collect data on compensation of employees. As an example the United States uses demographic models to calculate personal transfers and compensation of employees administrative data from the United States government for social benefit payments and a survey of non-profit organisations supplemented with data collected by the United States government and a private organisation to calculate payments by NPISHs.63 The use of different methods is further


63 In August 2008, the United States Census Bureau conducted a survey of remitting behavior as a one-time module attached the monthly Current Population Survey. The Bureau of Economic Analysis will explore the potential for the results of this survey to be used to refine the demographic model that it uses to estimate personal transfers.
illustrated in the country case studies (Annexes 9.1 and 9.4) where the method for estimating compensation of employees differs from the method for estimating personal transfers.

9.59 Regardless of the methods employed compilers need to stay abreast of new developments in the transfer market. Financial and technological innovations are continually expanding the transfer options available to remitters. Mobile banking—and with it mobile transfers—is increasingly popular in many countries as are linked bank accounts debit cards and internet-based transfers. Current compilation methods may fail to capture transfers sent through these new channels. Changes in the demographic profile of the remitting population such as age, origin, and legal status may also affect the ability of a collection method to produce accurate estimates as can changes in national financial regulations.

VI. Ongoing activities and recommendations for future work

9.60 Work on improving remittance data is on-going at the international level. At the June 2008 Summit at Hokkaido Tokyo the G8 announced the creation of a Global Remittances Working Group (GRWG) coordinated by the World Bank to further international work on remittances issues. The GRWG is divided into four thematic areas the first of which is “Data”.64 In June 2009 an International Technical Meeting on Measuring Remittances was held in Washington D.C. to further refine the work program for the “Data” area. Participants proposed creating a new technical working group focused on improving remittance data that would meet annually to oversee and promote global and regional efforts to improve data including the provision of technical assistance and the exchange of metadata and bilateral data. Participants also proposed creating a website that would serve as a global repository for detailed metadata, bilateral data and the results of ongoing research. The GRWG is also constructing a matrix of remittance activities conducted at the World Bank with plans to expand the matrix to other international institutions.

9.61 Despite their potential power until recently only limited work was done to develop household surveys as a tool for collecting remittance data. In an effort to address this knowledge gap in January 2008 the United Nations Economic Commission for Europe (UNECE), World Bank, and United States Census Bureau sponsored an Expert Group Meeting on the Contribution of Household Surveys to Measuring Remittances. Meeting participants have since formed the Suitland Working Group operating under the Conference of European Statisticians’ Work Plan on Improved International Migration Statistics to further examine these issues as well as the broader topic of using household surveys to measure migration. At a conference in March 2009 the Suitland Working Group further refined its work plan. 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.65

9.62 At the regional level the UNECE can support these ongoing efforts by providing technical assistance for improved data collection and the conversion to BPM6 definitions. Several regional institutions including the Center for Latin American Monetary Studies, the IMF Middle East Technical Assistance Center and the Statistical Office of the European

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64 The other areas are “Interconnections with migration, development, and policy,” “Payment and market infrastructure,” and “Remittance-linked financial products and access to finance.”
65 For additional information, see the conference website at http://www.unece.org/stats/documents/2009.03.migration.htm.
Union (EUROSTAT) have conducted programs to improve remittance data collection in member countries. UNECE member nations that have difficulty adjusting to the new BPM6 definitions or that do not currently have adequate data collection methodologies may benefit from UNECE-provided assistance to refine or develop collection methods.

9.63 Bilateral data sharing is another area where a regional UNECE initiative may be effective. Because migration is often a regional phenomenon the sharing of data within a regional group can highlight asymmetries between major partner countries which the nations can then examine within the context of the larger region. The development of a centralised remittance database either publicly available or restricted may facilitate data sharing and the development of a supply and use framework may facilitate the analysis of the data.

9.64 Finally as mentioned above continual research is needed into emerging transfer methods and changes in the demographic profile of the remitting population. Research should be conducted at the national and regional levels to capture both country-specific developments and regional changes.
Annex 9.1

Cross-border remittances statistics in Russia

A. Introduction

9.1.1 Russia tops the list of emerging market economies in terms of the number of migrants in its territory, while in terms of the value of remittances it is second only to the United States. Calculated on the basis of balance of payments data, the value of remittances from Russia in 2007 stood at $18 billion, or 7 per cent of the world’s total.

9.1.2 This annex illustrates some practical and methodological approaches adopted by the Bank of Russia in developing a cross-border remittances statistical framework.

B. Statistics on cross-border transactions of individuals

9.1.3 In 2004 the Bank of Russia initiated data collection on cross-border transactions of natural persons as part of its on-going effort to improve the quality of Russia’s external sector statistics. The reporting population covers banks, Money Transfer Operators (MTOs) and Russia’s Federal Postal Service. The created database includes information on all international transactions of individuals, including remittances.

9.1.4 In 2008, individual cross-border transactions (flows to Russia plus flows from Russia) were valued at $51.9 billion, or 3.1 per cent of Russia’s GDP. Outflows exceeded inflows by $30 billion (1.8 per cent of GDP).

9.1.5 Remittances are only part of this indicator because the latter includes data on (i) flows in Russia (from Russia) in favour of (from) resident individuals and non-resident individuals and (ii) payments related to merchandise trade, trade in services, financial transactions, etc.

9.1.6 The cross-border transactions statistics have attracted a wide range of users. The transactions show the interdependency of different economies. And it allows evaluation of the extent of households’ involvement in banking sector transactions. Next, the level of financial literacy can be judged from the relevant trends, and it helps banks and MTOs to determine their proper shares on the money transfer market.

9.1.7 Taking into consideration the great interest shown by banks and mass media, the Bank of Russia has begun to publish statistical data on cross-border transactions on a quarterly basis. At present, users are particularly interested in data on the value of private cross-border transactions conducted through MTOs and the postal service. These data are disseminated without any adjustments and come directly from reports of banks that have clearing centres for MTOs, of those MTOs that don’t have clearing banks in Russia and reports on postal remittances.

9.1.8 Remarkably, putting side by side the Bank of Russia data on cross-border transactions, conducted via MTOs, with other countries’ statistics (i.e. provided by Georgia

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66 The sum of the following balance of payments items: workers’ remittances, compensation of employees and migrants’ transfers.
and Tajikistan), it showed broadly similar results for 2007 with small discrepancies ranging within 2 to 5 per cent (Table 9.1.1).

Table 9.1.1
Comparison of cross-border remittances ($ mln)

<table>
<thead>
<tr>
<th>Remittances from Russia to Tajikistan</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bank of Russia data</td>
<td>957</td>
<td>1632</td>
</tr>
<tr>
<td>National Bank of Tajikistan data</td>
<td>934</td>
<td>1560</td>
</tr>
<tr>
<td>Discrepancy</td>
<td>3%</td>
<td>5%</td>
</tr>
<tr>
<td>Remittances from Russia to Georgia</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bank of Russia data</td>
<td>344</td>
<td>558</td>
</tr>
<tr>
<td>National Bank of Georgia data</td>
<td>369</td>
<td>545</td>
</tr>
<tr>
<td>Discrepancy</td>
<td>-7%</td>
<td>2%</td>
</tr>
</tbody>
</table>

C. Economic definition of remittances

9.1.9 The principal methodological problem the Bank of Russia faced was the disaggregating of remittances from other cross-border transactions of individuals due to the lack of a single economic definition of remittances. A major contribution to the process of defining this phenomenon and arranging the corresponding statistical accounting is made by the latest recommendations of international organisations and statistical forums. The Bank of Russia believes that the aggregates introduced at the international level, such as personal remittances and total remittances are a good statistical approximation to the definition of remittances.

9.1.10 In the view of the Bank of Russia, and in agreement with international standards, remittances are:

(a) Resource flows from abroad to resident households of financial and other economic values and related directly or indirectly with labour migration;

(b) Resource flows from resident households of financial and other economic values and related directly or indirectly with labour migration.

9.1.11 Consequently, there are two major factors that should be taken into account when defining remittances: the final beneficiary (the household) and the fact that the movement of economic values is related with labour migration.

9.1.12 In order to ensure the measurement of remittances, the Bank of Russia has disaggregated the indicators from the bank statements on individual cross-border transactions. The transactions have been split-up into non-resident and resident, the latter broken down by purpose as well.

9.1.13 The problems are that too many cross-border transfers remain unclassified: 18 per cent of payments and 33 per cent of receipts and too many people have dual citizenship.
9.1.14 The breakdown by country allows improving analysis of data for the purpose of determining remittances in the true sense. Transfers to Uzbekistan, Tajikistan and Ukraine (amount to $7.8 billion in 2008, or 0.5 per cent of Russia’s GDP) resemble part of compensation of employees paid to migrant workers from these countries. This is confirmed by frontier control service data on the number of people who entered Russia and data on average earnings.

9.1.15 At the same time, Russia’s negative balance with China (estimated at $2.4 billion) is not confirmed by data on the number of Chinese natives in Russia. Our study has shown that some part of remittances to China declared by individuals as transfers without quid pro quo are earnings from imports brought to Russia without being cleared by customs.

9.1.16 The large size transfers are also a problem. It is common practice in Russia for unincorporated entrepreneurs to pose as private individuals and remit through MTOs payments related to merchandise trade. Declared as personal transfers to the banks’ operators and reported by the banks accordingly they involve considerable funds and
therefore transfers averaging more than $5,000 have been excluded from household-to-household remittances.

Chart 9.1.1
Cross-border transactions of individuals in breakdown by countries: Data on top 10 countries by turnover in 2008, $ billion

Diagram 9.1.3
Breakdown of cross-border transactions

DATA SOURCE
Cross-border transactions of resident and non-resident individuals (payments/receipts)

RESIDENTS

NONRESIDENTS

Goods
Services
Deposits
Real estate
Remittances
Wages
Small Value Transactions
Large Value Transactions*

Merchandise Trade
Services
Direct and Other Investment
Personal Transfers + Capital Transfers
Transfers via Banks + MTO’s
Transfers in Cash
Travel
Taxes and Social contributions
Compensation of Employees

Personal Remittances

BALANCE OF PAYMENTS STATISTICS

9.1.17 The work resulted in the separation of remittances from other individual cross-border transactions.

*Merchandise Trade
D. Personal remittances

9.1.18 Personal remittances is a supplementary item introduced in the BPM6.

9.1.19 Personal remittances are the sum of:
(a) secondary income in the form of personal transfers;
(b) primary income in the form of compensation of employees; and
(c) capital transfers between households.

9.1.20 In Russia the item personal remittances has been calculated using balance of payments time series.

Table 9.1.2
Comparison of measures of personal remittances in BPM5 and BPM6, $ billion

<table>
<thead>
<tr>
<th></th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
<th>2008</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>A. BPM5 Framework</strong> (Standard components related to remittances)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income - Compensation of employees</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receivable (Credit)</td>
<td>1.2</td>
<td>1.8</td>
<td>1.9</td>
<td>2.6</td>
<td>3.8</td>
</tr>
<tr>
<td>Payable (Debit)</td>
<td>-1.5</td>
<td>-2.9</td>
<td>-6.1</td>
<td>-9.9</td>
<td>-18.0</td>
</tr>
<tr>
<td>Current transfers - Other sectors</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Workers' remittances</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receivable (Credit)</td>
<td>0.9</td>
<td>0.6</td>
<td>0.8</td>
<td>0.9</td>
<td>0.8</td>
</tr>
<tr>
<td>Payable (Debit)</td>
<td>-2.7</td>
<td>-3.1</td>
<td>-4.6</td>
<td>-6.9</td>
<td>-7.3</td>
</tr>
<tr>
<td>Capital account - Migrant transfers</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Receivable (Credit)</td>
<td>0.4</td>
<td>0.6</td>
<td>0.7</td>
<td>1.2</td>
<td>1.4</td>
</tr>
<tr>
<td>Payable (Debit)</td>
<td>-1.1</td>
<td>-1.0</td>
<td>-0.8</td>
<td>-0.9</td>
<td>-0.9</td>
</tr>
<tr>
<td>Remittances, Credit</td>
<td>2.5</td>
<td>3.0</td>
<td>3.3</td>
<td>4.7</td>
<td>6.0</td>
</tr>
<tr>
<td>Remittances, Debit</td>
<td>-5.2</td>
<td>-7.0</td>
<td>-11.5</td>
<td>-17.8</td>
<td>-26.1</td>
</tr>
</tbody>
</table>

| **B. BPM6 Framework** (Components related to remittances) |      |      |      |      |      |
| Personal remittances (supplementary item) | 1.8  | 3.0  | 3.4  | 4.3  | 5.3  |
| Net Compensation of employees, Receivable | 0.9  | 1.4  | 1.5  | 2.2  | 3.4  |
| Compensation of employees (standard component) less Taxes on income (paid to non-residents) | -0.1 | -0.2 | -0.1 | -0.2 | -0.2 |
| Travel (import) | -0.2 | -0.2 | -0.2 | -0.2 | -0.3 |
| Personal Transfers (standard component) | 0.9  | 1.6  | 1.9  | 2.1  | 1.9  |
| Workers' remittances | 0.9  | 0.6  | 0.8  | 0.9  | 0.8  |
| Other household-to-household transfers | 0.0  | 1.0  | 1.2  | 1.2  | 1.1  |
| Personal remittances (Debit) | -3.5 | -5.8 | -9.7 | -16.2| -23.8|
| Net Compensation of employees, Payable | -0.9 | -1.9 | -3.6 | -6.3 | -12.3|
| Compensation of employees (standard component) less Taxes on income (received from non-residents) | -1.5 | -2.9 | -6.1 | -9.9 | -18.0|
| Travel (export) | 0.5  | 0.9  | 2.2  | 3.0  | 4.5  |
| Personal Transfers (standard component) | -2.7 | -3.9 | -6.0 | -9.9 | -11.6|
| Workers' remittances | -2.7 | -3.1 | -4.6 | -6.9 | -7.3  |
| Other household-to-household transfers | 0.0  | -0.8 | -1.5 | -3.0 | -4.3  |

9.1.21 As a result of these calculations, personal remittances proved to be 10 per cent smaller on average than those calculated according to the BPM5 methodology. Finally, the
exclusion of the expenses incurred by foreign workers in a host country has the most significant effect on the decrease.

9.1.22 The compilation of the new item was not challenging from the standpoint of determining net compensation of employees, because estimates on taxes and social contributions paid by temporary workers and the export and import of travel were made regularly. Total compensation of employees has been estimated using statistical modelling techniques; the number of residents temporarily employed in a foreign economy and the number of nonresidents working in Russia (collected quarterly by migration service) multiplied by the average income broken down by activity for nonresident employees and by country and activity for resident employees. The gross figure is reduced by (i) estimated expenses on accommodation, meals and other goods and services as well as (ii) tax payments according to a flat personal income tax rate set in Russia and the weighted average tax rate for foreign countries. This approach allows determining net compensation of employees that is split between funds remitted formally via banks (actual data taken from the banking statistics) and informal cash transfers as a residual.

Table 9.1.3
Compensation of employees (COE)

<table>
<thead>
<tr>
<th>Compensations of employees=</th>
<th>Travel (living costs, food, other current expenses)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of employees</td>
<td>Taxes on income and social contributions</td>
</tr>
<tr>
<td>x</td>
<td>Remittances of nonresidents via banks and MTOs</td>
</tr>
<tr>
<td>average wages (salary)</td>
<td>Cash remittances of nonresidents</td>
</tr>
</tbody>
</table>

9.1.23 This model, given the size of Russia’s territory, does not take into account temporary workers’ transport expenses, as this is important only for border workers who regularly (daily or weekly) bear such expenses. In Russia resident workers stay abroad and nonresident workers stay in Russia for 3-6 months on average.

9.1.24 The item personal transfers (workers’ remittances and other current transfers between households) has been taken as equal to: (i) the household-to-household remittances without quid pro quo, reported by banks and MTOs, plus (ii) the estimated transfers of those nonresidents (in favour of those nonresidents) whose legal and statistical residency status differ.

9.1.25 Capital transfers are not determined separately, but are included as a part of other current transfers between households. The economic sense of capital transfers between households is too specific for the banking reporting.

E. Further developments

9.1.26 To expand the coverage of remittances statistics, the Bank of Russia plans:

(a) To estimate the value of transfers from Russia through hand-carry. Cash transfers by nonresidents (temporary workers) are accounted for as a part of the compensation of employees, whereas resident transfers in the form of cash (or in-kind) taken out of the country as ‘pocket’ money or passing through third persons are not registered in the secondary income account of Russia’s BoP;

(b) To publish personal remittances by country as supplementary statistical information to the BoP;

(c) To include the institutions which make electronic transfers via Internet in the reporting population. Transfers from one electronic purse to another are a new product on
the remittances market, which has a relatively small number of users so far. However, the advantages of this channel call for the organisation of data collection. In Russia these transactions are conducted by unlicensed institutions which are not obliged to provide detailed statistics. We also beware of the illegal transfers (money laundering etc.) through these systems;

(d) To compile mirror statistics with major recipient countries.

F. Conclusion

9.1.27 Remittances are a topical issue in the era of globalisation and the statistical monitoring of this process should be elaborated. We believe that it will be useful to study this phenomenon not only from the standpoint of remittances impact on the economies that supply migrant workers, but also from the standpoint of the effect that migrant workers have on the economic development of host countries. The knowledge of this effect would help to raise the social status of migrants and improve conditions of their work.
Annex 9.2

Labour migration survey in Ukraine

9.2.1 In the framework of the project “Labour migration survey in Ukraine” in June 2008 the State Statistics Committee of Ukraine (SSCU) and the Ukrainian Centre for Social Research conducted the first all-national population (households) labour migration sample survey (hereinafter – labour migration survey).

9.2.2 The methodology of the survey and its organisational principles are aligned with current international statistical recommendations. The survey was organised based on a sample of households that merges the samples used for two state-operated sample surveys: the labour force survey and the household living conditions survey. The size of the sample allows obtaining representative data for the country as a whole and for each of the five broad regions (North, Centre, South, East, West).

9.2.3 Assessment of real earnings of migrant workers is the most complex matter in sample surveys largely because of migrants and their relative unwillingness (fears) to respond openly to questions related to earnings. A considerable proportion of migrant workers was employed and had incomes under pseudo-legal or illegal employment schemes.

9.2.4 The methodology to estimate the actual amounts of migrant workers’ earnings and remittances was based on labour migration data as well as on the ILO and Eurostat data on levels of earnings of Ukrainian economic migrants in receiving countries.

9.2.5 Earnings of migrant workers depend on:

(a) The number of migrant workers and their distribution by cohorts (depending on a host country and activity area);

(b) Average work-load for the representatives of each selected cohort of migrant workers;

(c) Wages of migrant workers in each cohort.

9.2.6 In the framework of the above-mentioned methodology, amounts of earnings and remittances are estimated for the year 2007. Labour migration survey data on the number of migrants going abroad over 2007 – 1st semester of 2008 was used for the calculation.

9.2.7 For a compositional distribution of migrants by cohorts (by country and activity) it is reasonable to select a limited number of countries and activities while earnings of migrants in other countries and other activities are calculated as the average of the cohorts selected. Seven main countries-recipients of Ukrainians working abroad (Russian Federation, Italy, Czech Republic, Poland, Hungary, Spain and Portugal) and seven main activities (agriculture, industry, construction, wholesale and retail trade, hotels and restaurants, transport, activities of households) were considered.

67 The authors of this report recognise that the described methodology allows only approximate estimation of the earnings and remittances sent by migrants to their families/relatives in Ukraine. However, these estimates are consistent with the reality. Further accurate estimations of remittances sent by Ukrainian migrant workers will require more detailed studies including surveys aimed at improving of the base used for calculations.
9.2.8 Remittance amounts (including bank transfers, money sent by informal channels and money taken back upon return of migrants to a home country) depend on both earnings and the cost of living in host countries. According to the survey findings, 22.5 per cent of the migrants’ earnings are spent in the countries of temporary residence. Transport costs of going abroad and back also have to be added. These costs hardly could be too high as migrants often use “low” cost transports, whereas persons who are in migration in far-distance countries go abroad for a long period (i.e. they do not travel often). Thus remittances account for 70 per cent of total earnings – over Euro 1.3 billion.

9.2.9 As about a half of all migrant workers originate from 6 western regions (Volyn, Zakarpattia, Ivano-Frankivsk, Lviv, Ternopil, and Chernivtzi region). The remittances sent to the households in these regions amount to around Euro 700 million (after recalculation from official hryvna to Euro using exchange rates set by the National Bank of Ukraine (NBU)) and exceed 20 per cent of the corresponding wage payroll. In Zakarpattia region (territory with the highest labour migration intensity) remittances amount for more than half of the wage payroll.

9.2.10 When people work abroad they usually resort to strict economy. According to the survey data 66.1 per cent of migrant workers spent in the host country less than a quarter of their earnings and 29.9 per cent - from a quarter to a half. Only 4.0 per cent of Ukrainians working abroad spent more than a half of their earnings.

9.2.11 Expenditures also depend on the legal status of migrant workers. Persons having a residence and work permit spent abroad larger share of their earnings, whereas illegal migrants spent smaller share. This could be explained by the fact that illegal migrant workers have uncertain status and have no intent (or chance) to stay in the host country over a longer period. They try to maximise savings in short period by minimizing their spending. At the same time considerable consumption expenditure coupled with a stable legal status could be an evidence of intention for a longer, possibly permanent, residence abroad. 3.2 per cent of men and 5.8 per cent of women spend abroad more than half of their earnings, which could mean that some Ukrainians working temporary abroad will resort to a longer and no-return migration.

9.2.12 Expenditures largely depend on the living cost and the period of staying in the host country. The longer the stay, the higher the expenditures for settling. The migrants working in Hungary, Poland and Russian Federation had the lowest expenditures – 78.9, 76.9 and 72.0 per cent respectively of all migrants in these countries spent less than a quarter of their earnings. At the same time such level of spending was a characteristic of only 28.4 per cent of the migrants in Spain, in Italy – 49.1 per cent, Portugal – 55.7 per cent. It is the result of a higher living cost alongside with a longer labour migration continuity in these countries.

9.2.13 The majority of migrant workers sent money from abroad to their families in Ukraine – 61.1 per cent. It does not mean that other migrant workers did not give support to their relatives. However, the distribution by host country reveals that migrants sent money to their relatives primarily from far-distance countries: from Spain – 81.8 per cent, Italy – 78.6 per cent, Portugal – 71.3 per cent. At the same time, most migrants working in Hungary and Poland did not send money to their relatives. Migrants working in Russian Federation sent about a half of their earnings.

9.2.14 Hence one could assume that migrants working in neighbouring countries transfer their earnings on their own. Thus, a certain share of migrant workers’ earnings is transferred to Ukraine with a lag in the case when migrants return to Ukraine and plan no migrations in future whereas a certain share of earnings never reaches Ukraine.

9.2.15 Men send 62.3 per cent and women 58.8 per cent of their earnings to Ukraine, though women make up a larger proportion among migrants in the countries from which is
remitted (Italy). This is evidence of weakening of women-migrants ties with the home country.

9.2.16 Persons who have formalized legal status remitted a somewhat larger amount to Ukraine compared to migrants without a legal status though their expenditures in the host country were also higher. On the average, in 2007 remittances per migrant having a residence and work permit was equal to $2,831. This is attributed to higher earnings in this cohort of migrants. At the same time migrants without legal status or whose status was not defined sent on average $2,551 and $2,511, respectively.

9.2.17 Migrants having multiple migrations abroad remitted markedly larger amounts. Migrants who went to work abroad once in 2007 remitted $2,353, on the average, whereas those who went to work abroad several times − $2,821. The largest amounts to relatives were remitted by migrants who regularly went abroad to work every month − $3,451 per annum (probably a certain share was of trade and business nature).

9.2.18 The structure of migrants’ expenditures reveals that the main heading in their expenditures are the essentials (foodstuffs, clothes and payment for services) which was reported by 72.0 per cent of migrant workers. The second heading is purchase of durables (39.3 per cent); the third – purchase and reconstruction of estate property (apartments, houses); new construction (29.1 per cent). Less frequently earnings were channelled for household member studies (12.4 per cent), loan repayment (10.4 per cent), savings (9.7 per cent), and medical treatment (6.5 per cent).

9.2.19 Migrant workers’ earnings sent to Ukraine make up considerable amounts that contribute to life quality in Ukraine.

9.2.20 On the whole, 1,329.8 thousand households (or one in two surveyed households) in 2007 received in-cash or in-kind aid from abroad. Households received aid predominantly from family members and relatives and only 4.5 per cent received aid from friends and other acquaintances. Households received 89.2 per cent of the aid in cash. On the average this amounted to $2,207 per household in 2007. And the amount of aid to rural residents was 1.4-times higher compared to that to urban residents.

9.2.21 Cash aid had contributed a lot to household wellbeing. In household aggregate income it made up on average 42.6 per cent.

9.2.22 It is indicative that welfare of households having migrants is largely secured by their work abroad. Thus, 65.2 per cent of households perceived as wealthy received from migrants almost a half of their incomes. In the group perceived as mid-wealthy such households made up 41.6 per cent. And for the group below mid-wealthy such households accounted for only 36.6 per cent.

9.2.23 Certain relation is observed between the level of welfare and amounts of the received cash aid. One in three households perceived as mid-wealthy and one in two households perceived as below mid-wealthy or poor in 2007 received on average up to $1,000. At the same time, one-third of wealthy households received $2,001−3,000 and one-third – over $5,000.
Annex 9.3

Estimates of remittances in the Czech Republic

A. Introduction

9.3.1. Migration of people due to economic reasons is an important economic phenomenon. It is not only a consequence but also a cause of differences in economic development of countries and regions. The migration impacts on the social and economic situation both in the migrants’ countries of origin and in the host countries. This phenomenon is reflected in the national accounts as well as balances of payments of the countries.

9.3.2. For the Czech Republic it is a relatively new phenomenon. In 1970’s and 1980’s the migration to the former Czechoslovakia was covered by intergovernmental agreements with Cuba, Poland and Vietnam. However, the numbers of workers were insignificant. Since the migration of Czechoslovak citizens to foreign countries was considered purely politically motivated by the then totalitarian regime and was restrained. Economic cross-border contacts of relatives were then enabled only by official channels captured in the balance of payments.

9.3.3. In 1990’s the cross-border financial-flows data were still taken from official sources and they were supported by estimates of this new mass phenomenon – shuttle trade. The transformation and adaptation problems encountered by the statistical service and chaos in legislation did not allow the Czech Republic to capture significant changes such as the return of many emigrants, the increasing inflow of immigrants and a new wave of “short-term” emigrants intending to work abroad. The Czech Republic turned from a predominantly emigrant country to a predominantly immigrant country in that period. It became a “pure” host of migrants seeking work. The immigrants now account for about 5 – 7 per cent of the total number of 5.5 million workers in the Czech Republic. Capturing the remittances to their countries of origin in the national accounts and balances of payments thus became important.

9.3.4. The direct cause for the transfer of responsibility for remittance estimates from Czech National Bank (CNB) to the Czech Statistical Office (CSO) was the limitation of thresholds for obligatory transaction identification in commercial banks and increasingly popular use of credit cards. The formal method to estimate the remittances became ineffective because the remittance flows captured through formal financial system (banks and credit unions or licensed money transfer operators (MTOs)) represented only a small portion of the total remittance volume. Currently the formal flows of funds do not allow full coverage of all transactions on one hand, and provide poor tools to distinguish the transaction purposes, i.e. involve the mixing of tourists’ and migrant workers’ money transfers, on the other hand. Neither do the formal flows of funds enable to distinguish between short- and long-term migrants which is important to differentiate between the primary and secondary income flows. This indicates in the actual circumstances the remittance level can be estimated only using statistical methods combining various information sources. However, CSO has not accumulated sufficient comprehensive experience in this sphere. Therefore we have been focused on the labour of foreigners in the Czech Republic and we drew up a general procedure to estimate their income, expenses and remittances to their countries of origin. For that reason our contributed paper handles this remittance aspect.
B. Estimate of foreigners’ labour in the Czech Republic and remittances to their countries of origin

9.3.5. Following the first attempts from the late 1990’s, the current approach to the estimates is focused on full coverage of the basic requirements of national accounts, balance of payments and supply and use tables. Each of the three estimate output application areas has specific requirements. The national accounts system requires a differentiation between primary and secondary income and focus on gross wages (compensation of employees, taxes, contributions to social and health insurance systems). Apart from the principal requirements of the national accounts system, the balance of payments needs also territorial division, i.e. division according to the main groups of countries. The consumption and exports of short-term migrants’ goods needs to be divided according to commodities in the input-output tables and supply and use tables.

9.3.6. Our approach to the estimation procedure is based on the combination of the requirements mentioned above. The description of the procedure below is limited to one direction of remittance flows - the flows from the Czech Republic to foreign countries - which flows include only those from migrant workers, and not from Czechs. The estimation procedure can be divided into four stages:

1. Estimates of the number of foreigners working in the Czech Republic

9.3.7. It is self-evident that the estimates of income, expenses and remittances cannot be made based on aggregate data not only due to the structure of required outputs but also, and most importantly, because of the differences in behaviour of various groups of remitters (foreigners).

9.3.8. Their income depends mostly on the type of their activities, whether they are employees or entrepreneurs, whether they work legally or illegally and whether they have additional jobs or not. Their expenses depend mostly on their income level, purpose and duration of their stay, whether they maintain other person(s) or not, national habits etc. However, the structure in which the numbers of remitters (foreigners) can be ascertained should also be taken into account because the figures showing the number of foreigners are not so easy to calculate although they may be perceived as such.

9.3.9. There is no uniform compulsory registration system for all foreigners in place in the Czech Republic. In essence, there are three fully independent databases. However, they are incomplete and not coordinated with one another. These overlapping databases are operated by the following authorities:

(a) Alien police (residence permits);
(b) Employment bureau (work permits);
(c) Trades licensing offices (trade licenses).

9.3.10. Combining the administrative sources above in detailed division according to the countries of origin we estimate the numbers of foreigners being employers, entrepreneurs and non-workers (students, children and pensioners). Table 9.3.1 provides the resulting overview of the number of foreigners according to the different groups of countries and some major countries.
Table 9.3.1
Number of foreigners working in the Czech Republic, 2006

<table>
<thead>
<tr>
<th></th>
<th>Non-resident employees legal</th>
<th>Non-resident employees illegal</th>
<th>Resident entrepreneurs</th>
<th>Economically non-active foreigners</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>European monetary union</td>
<td>841</td>
<td>:</td>
<td>9 598</td>
<td>5 280</td>
<td>3 251</td>
</tr>
<tr>
<td>of which: managers</td>
<td>697</td>
<td>:</td>
<td>7 007</td>
<td>x</td>
<td>2 064</td>
</tr>
<tr>
<td>European Union - non-members of EMU</td>
<td>12 867</td>
<td>:</td>
<td>88 041</td>
<td>10 776</td>
<td>23 715</td>
</tr>
<tr>
<td>of which: Poland</td>
<td>1 263</td>
<td>:</td>
<td>1 239</td>
<td>1 385</td>
<td>1 804</td>
</tr>
<tr>
<td>Slovakia</td>
<td>11 065</td>
<td>:</td>
<td>73 060</td>
<td>8 512</td>
<td>20 925</td>
</tr>
<tr>
<td>Third countries</td>
<td>55 527</td>
<td>:</td>
<td>35 950</td>
<td>79 833</td>
<td>35 684</td>
</tr>
<tr>
<td>of which: Western countries</td>
<td>2 021</td>
<td>:</td>
<td>1 924</td>
<td>1 352</td>
<td>1 759</td>
</tr>
<tr>
<td>Ukraine</td>
<td>35 318</td>
<td>:</td>
<td>22 356</td>
<td>29 429</td>
<td>8 413</td>
</tr>
<tr>
<td>Russia</td>
<td>4 805</td>
<td>:</td>
<td>3 457</td>
<td>5 004</td>
<td>4 874</td>
</tr>
<tr>
<td>Vietnam</td>
<td>231</td>
<td>:</td>
<td>223</td>
<td>27 570</td>
<td>10 935</td>
</tr>
<tr>
<td>Non-legal person</td>
<td>x</td>
<td>7 117</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>69 235</td>
<td>7 117</td>
<td>133 589</td>
<td>95 889</td>
<td>62 650</td>
</tr>
</tbody>
</table>

9.3.11. According to the calculations using various administrative data sources the alien police figures do not cover some 60 thousand foreigners (mostly from Slovakia and other EU countries who are not bound by the registration obligation). The employment bureau and trades licensing office figures do not cover some 90 thousand foreigners (mostly non-workers). The numbers of foreigners in Table 9.3.1 include also those expatriated because of illegal work in the Czech Republic. The estimate of illegal immigrants based on the number of expatriated foreigners in this way is seen by us as the weakest point of the estimate of the number of remitters (foreigners).

2. Estimates of income of foreigners working in the Czech Republic

9.3.12. The foreigners working in the Czech Republic are categorized into two groups of remitters carrying on gainful activities - employees (i) and entrepreneurs (ii) - to which a different approach is applied in estimating their income.

(i) The estimates for employees are based on data on average wage of foreigners from statistical surveys conducted for the needs of CSO by Trexima (private agency). The data are structured according to the countries of origin. However, they are not structured according to the fields of activity, income groups and type of stay (long-term, short-term, and illegal). Nonetheless, it can be expected that the data on the numbers of foreigners disaggregated according to the countries cannot be properly subdivided by us according to the fields of activity and income groups. In case of workers staying in the country for a short-term (nonresidents) the estimated gross wage is used to derive the contributions to social and health insurance systems and income taxes. In case of illegal workers the contributions and taxes are not calculated so the gross wage is regarded as net wage.
The estimates for employers are aimed to quantify their net income remaining to them for their personal expenses and any remittances to their countries of origin. For that reason our estimates are based on the information on their section of economic activities (according to NACE 2) and the item “Net loans /borrowings” (B.9) in the respective section. The main weakness of this procedure is the fact that the entrepreneurs can invest in their countries of origin instead of the Czech Republic. (The actual remittances are higher.) In addition, some of them are only mock entrepreneurs working as employees if at all (e.g. students). Their registration as entrepreneurs is often motivated by an easier way to obtain long-term visa for entrepreneurs. (The actual remittances are lower).

Table 9.3.2
Monthly incomes and expenditures of foreigners working in the Czech Republic, 2006, in Czech crown

<table>
<thead>
<tr>
<th></th>
<th>European monetary union</th>
<th>EU - non-members of EMU</th>
<th>Third countries</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Total</td>
<td>managers</td>
<td>Total</td>
<td>Slovakia</td>
</tr>
<tr>
<td>Number of persons</td>
<td>10 439</td>
<td>7 704</td>
<td>100 908</td>
<td>84 125</td>
</tr>
<tr>
<td>Wages and salaries, gross</td>
<td>43 663</td>
<td>59 603</td>
<td>32 009</td>
<td>22 958</td>
</tr>
<tr>
<td>(-) Employees’ social contributions</td>
<td>-3 506</td>
<td>-5 458</td>
<td>-7 450</td>
<td>-4 001</td>
</tr>
<tr>
<td>(-) Taxes on income</td>
<td>-4 250</td>
<td>-8 012</td>
<td>-12 358</td>
<td>-5 032</td>
</tr>
<tr>
<td>Wages and salaries, net</td>
<td>35 907</td>
<td>46 133</td>
<td>12 201</td>
<td>13 924</td>
</tr>
<tr>
<td>Individual consumption expenditure</td>
<td>16 884</td>
<td>17 206</td>
<td>7 182</td>
<td>7 471</td>
</tr>
<tr>
<td>of which:1.Food, non-alcoholic bev.</td>
<td>3 659</td>
<td>4 297</td>
<td>1 792</td>
<td>1 837</td>
</tr>
<tr>
<td>2.Alcoholic beverages, tobacco</td>
<td>1 911</td>
<td>2 218</td>
<td>860</td>
<td>880</td>
</tr>
<tr>
<td>3.Clothing and footwear</td>
<td>1 458</td>
<td>1 797</td>
<td>348</td>
<td>339</td>
</tr>
<tr>
<td>4.Housing, water, electricity, gas, ..</td>
<td>4 369</td>
<td>2 961</td>
<td>1 987</td>
<td>2 220</td>
</tr>
<tr>
<td>5.Furnishings, household equip., ...</td>
<td>524</td>
<td>597</td>
<td>182</td>
<td>182</td>
</tr>
<tr>
<td>6.Health</td>
<td>166</td>
<td>183</td>
<td>79</td>
<td>83</td>
</tr>
<tr>
<td>7.Transport</td>
<td>510</td>
<td>305</td>
<td>614</td>
<td>640</td>
</tr>
<tr>
<td>8.Communication</td>
<td>135</td>
<td>19</td>
<td>122</td>
<td>138</td>
</tr>
<tr>
<td>9.Recreation and culture</td>
<td>2 027</td>
<td>2 359</td>
<td>192</td>
<td>173</td>
</tr>
<tr>
<td>10.Education</td>
<td>27</td>
<td>0</td>
<td>36</td>
<td>36</td>
</tr>
<tr>
<td>11.Restaurants and hotels</td>
<td>258</td>
<td>264</td>
<td>587</td>
<td>564</td>
</tr>
<tr>
<td>12.Miscellaneous goods, services</td>
<td>1 840</td>
<td>2 206</td>
<td>383</td>
<td>380</td>
</tr>
<tr>
<td>&quot;Savings&quot; per month</td>
<td>19 023</td>
<td>28 927</td>
<td>5 019</td>
<td>6 453</td>
</tr>
</tbody>
</table>
3. Estimates of expenses for final consumption of foreigners working in the Czech Republic

9.3.13. The expenses for final consumption of foreigners working in the Czech Republic are estimated in a combined structure according to groups of countries, type of stay (long-term, short-term, and illegal) and 12 COICOP classification groups. The inputs are the expense level and structure data from the family accounts statistics. Unfortunately, these statistics capture only the Czech households’ expense level and structure. The concerned data are therefore corrected individually for each group. The resulting aggregate data for each group are then compared with the income data in the same group. Table 9.3.2 shows the estimated expenses according to the major countries and groups of countries. The “net” income and “savings” left for any remittances to the countries of origin are added for convenience.

9.3.14. This approach has its weakness in a relatively arbitrary correction as we lack reliable information on consumption habits of some groups of foreigners (Vietnam, Ukraine).

4. Estimates of remittances of foreigners working in the Czech Republic

9.3.15. There are great differences among the groups of remitters (foreigners) in the resultant estimate of “savings” left for any remittances to the countries of origin (see Table 9.3.2). With the actual Czech crown / Euro exchange rate (26 CZK / 1 Euro), the estimate ranges from 250 to 600 Euro per month.

9.3.16. However, the estimate of remittances does not imply that the funds are really transferred in the calculated amount and specified period. The actual money transfer is usually influenced by a number of other factors connected with the purpose of stay in our country and the link to the country of origin. The transfer may be postponed or there may be no transfer at all. The worker may make the remittances regularly, from time to time or at the end of his or her stay. Or no remittances may be made if he or she obtains permanent residence permit in the host country. For that reasons the actual transfers are estimated, for example, at only 10 per cent of the estimated “savings” in case of the Slovak citizens and 90 per cent in case of managers from the western countries because their behaviour is obviously shaped by the development of exchange rates. For the short-term and illegal stays (of non-residents) it is expected the actual remittances are equal to those calculated.

C. Foreigners’ labour and remittances captured in national accounts

9.3.17. The primary categorization of foreigners into residents and non-residents is essential for correct quantification of all flows to be captured in national accounts. Table 9.3.3 offers the resulting figures on the foreigners’ labour in the Czech Republic in 2006. However, some data are implicitly included in the overall data and are used only to illustrate the remittance calculation in Table 9.3.3. Consequently, they are not explicitly included in the national accounts.
### Table 9.3.3
Calculation of remittances from the Czech Republic, 2006, in millions of Czech crown

<table>
<thead>
<tr>
<th></th>
<th>Non-residents employees legal</th>
<th>Non-residents employees illegal</th>
<th>Residents employees</th>
<th>Residents entrepreneurs</th>
<th>Economically non-active foreigners</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of persons</td>
<td>69 235</td>
<td>7 117</td>
<td>133 589</td>
<td>95 889</td>
<td>62 650</td>
<td>368 480</td>
</tr>
<tr>
<td>D.11 Wages and salaries</td>
<td>16 239</td>
<td>1 110</td>
<td>40 644</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>D.12 Employers’ social contributions</td>
<td>5 521</td>
<td>x</td>
<td>13 821</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>D1 Compensation of employees</td>
<td>21 760</td>
<td>1 110</td>
<td>54 465</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>(-)D.51 Taxes on income</td>
<td>-1 721</td>
<td>x</td>
<td>-5 220</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>(-)D.611 Employers’ actual social contributions</td>
<td>-5 521</td>
<td>x</td>
<td>-13 821</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>(-)D.612 Employees’ actual social contributions</td>
<td>-1 949</td>
<td>x</td>
<td>-4 877</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>(-)D.611 Actual social contributions</td>
<td>-7 470</td>
<td>x</td>
<td>-18 698</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>(-)P31 Individual consumption expenditure</td>
<td>-3 949</td>
<td>-343</td>
<td>-12 040</td>
<td>-15 619</td>
<td>-2 155</td>
<td>x</td>
</tr>
<tr>
<td>B.9 Net lending(+)/net borrowing(-)</td>
<td>x</td>
<td>x</td>
<td>75 558</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td>&quot;Savings&quot; usable for remittances</td>
<td>8 620</td>
<td>767</td>
<td>18 507</td>
<td>59 939</td>
<td>-2 155</td>
<td>85 678</td>
</tr>
<tr>
<td>Remittances, total</td>
<td>8 620</td>
<td>767</td>
<td>18 507</td>
<td>59 939</td>
<td>16 938</td>
<td>26 325</td>
</tr>
<tr>
<td>Remittances, % of &quot;savings&quot;</td>
<td>100%</td>
<td>100%</td>
<td>22%</td>
<td>31%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Monthly remittances per person (in EUR)</td>
<td>399</td>
<td>345</td>
<td>95</td>
<td>229</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### D. Conclusion

9.3.18. The procedure to estimate the foreigners’ labour in the Czech Republic and remittances to the countries of their origin described above has a number of weaknesses and many assumptions are not supported by exactly ascertained data. This applies particularly to the estimates of expenses and remittances made. Nevertheless, the development of a general estimation procedure covering all required outputs can be looked upon as an initial, fundamental step to properly capture the relatively new, yet very significant phenomenon in the Czech economy. The procedure is expected to be improved in its routines and disburdened of the weak points step by step using goal-oriented one-off statistical surveys in future. In order to identify the optimum approach in our circumstances, a task force managed by CSO was set up. The team is made up of representatives of different institutions dealing with the issues related to foreigners in the territory of the Czech Republic.
Annex 9.4

The Bulgarian experience in developing estimates for remittances

9.4.1 In Bulgaria, data on remittances are very important for policymaking, analysis and research purposes. Receipts of remittances are an important and stable source of funds that exceeds receipts from export of goods and services or from financial inflows on foreign direct investment.

A. General information

9.4.2 The Bulgarian National Bank (BNB) has been responsible for compiling the balance of payments (BoP) since 1991. Data are processed by the Balance of Payments and External Debt (BOPED) Division within the Statistics Directorate of the Bulgarian National Bank. The Bulgarian National Bank compiles and publishes the monthly BoP in accordance with methodological principles of the fifth edition of the IMF “Balance of Payments Manual” (BPM5), the European Central Bank Guideline ECB/2004/15 as well as Regulation (EC) No 184/2005 of the European Parliament and of the Council (January 12, 2005). The responsibility of the BNB for BoP compilation is provided for in Article 42 of the Law on the Bulgarian National Bank. The Foreign Exchange Law, amended in July 2003, specified a number of requirements for different reporting agents with regard to BoP data and strengthened the ability of the BNB to collect information. According to article 7 of the Foreign Exchange Law “For the needs of the balance of payments statistics, registers shall be kept of each transaction and payment between a resident and nonresident, as well as in relation to each cross-border transfer and payment amounting to a sum determined by a regulation, issued by the BNB, but not less than BGN 5,000 as follows:

(a) by commercial banks and the BNB;
(b) by ministries and government agencies;
(c) by the Central Depository and issuers of registered securities on the capital market, with regard to which the existing legislation provides for registration with the Central Depository;
(d) by investment intermediaries, insurers and pension funds;
(e) by notaries, registrars, respectively.”

B. Data sources and estimation procedures

9.4.3 Remittances represent household income from foreign economies arising mainly from the temporary or permanent movement of people to those economies covering cash and noncash items that flow through formal channels.

9.4.4 Currently, in Bulgarian practice the main source of information for compiling data on remittances is the International Transactions Reporting System (ITRS). Banks report also transactions of MTOs on a net basis. The information from MTOs is indirectly derived from ITRS. BNB plans to start direct reporting from MTOs in the near future. In accordance with art.26 since February 2008 the MTOs are subject to licensing and supervision by the BNB.
1. Residence criteria – Regulatory framework and practice

9.4.5 In compiling the BoP, the BNB broadly complies with the definitions set forth in the BPM5. Regulation № 27 on the Balance of Payments statistics, in force since 2003, introduced a statistical declaration used by the commercial banks in order to better differentiate their clients concerning residence. Although the legal basis is in compliance with BPM5, the practice of keeping the register up-to-date is often a difficult task. The physical persons are asked to personally define their status. Banks are obliged to keep registers on their behalf and on behalf of their customers of all the transactions above a threshold of 25000 BGN (about 12500 Euro) between resident and non-residents. Twice a month they are obliged to report them to the BNB on a transaction by transaction basis. The BOPED Division staff regularly visits the banks and checks the quality of their registers. The improved ITRS which is operational since 2006 (previously the data was reported in an aggregated form) improved both the quality of the information and the possibility to control the quality of information reported (including that on (property) income flows) off-site.

2. Seasonal and border workers

9.4.6 The data sources are the ITRS for the debit and credit items and estimates for the credit item accounting for the informal flows. The method of estimation of informal flows is based on estimate of the number of short-term (less than a year) illegally employed abroad multiplied by the minimum wage of the country of employment abroad, assuming also that these short-term migrants use informal channels for transferring their work-pay. The methodology is available at BNB web site (http://www.bnb.bg/bnb/home.nsf/fsWebIndex).

3. Estimated compensation of employees

9.4.7 The unemployment in some areas of Bulgaria as well as the opportunity to stay in the most of the EU countries for 3 months without a visa triggered unofficial migration. Due to its specifics – short-term (within the permitted 3 months stay) and shuttled (repeated unofficial employment for another 3 months) – it leads to inflow of funds in the country via unofficial channels.

9.4.8 Compensation of employees comprises wages, salaries, and other benefits (in cash or in kind) earned by individuals in economies other than those in which they are residents – for work performed for and paid by residents of those economies. Employees, in this context, include seasonal or other short-term workers, (less than one year) and border workers who have center of economic interest in their own economies. (Balance of Payments Manual, Fifth edition, para 269)

9.4.9 There are several groups of problems in collecting data for the compensation of employees:

(a) The practical implementation of the concept of residence,

(b) The high threshold applied by the countries with settlement based BoP collection systems. The threshold applied by the BNB – 25000 BGN (approximately EUR 12500) does not allow most of the remittances related transactions to be recorded properly,

(c) The diversity of methods of money transfers. Along with the banking transfers and mainline money transfer business such as Western Union there are significant informal transfers.

9.4.10 However, there is no unified methodology or guidance for collecting data or estimating the flow via informal transfers.

9.4.11 The estimation of flows due to unofficial employment is based on multiplication of the number of residents working unofficially abroad and their incomes and expenditures
per capita. The number of workers is an estimation based on (i) the number of Bulgarian citizens leaving the country with reason “Travel” (Border Police data), (ii) a survey among Bulgarian tour-operators on the number of Bulgarians who bought package holidays and made reservations for travelling abroad, run by the BNB at the end of 2005, and (iii) a separate survey of households.

9.4.12 The model allows estimation of the monthly incomes and expenditures, by country of employment. The incomes are included on the credit side of item Compensation of employees and the expenditures are included on the debit side of item Travel.

9.4.13 The incomes are estimated as a multiplication of number of workers and the minimum wages for the respective economy of employment. As the workers are unofficially employed it is assumed that they receive the minimum wage in the respective country and they do not pay any taxes, insurance, etc. The source for the levels of minimum wages is the report “Minimum Wages 2005 - Major Differences between EU Member States”, Eurostat, 1 August 2005.

9.4.14 The expenditures are estimated as a multiplication of number of workers and the cost of living for the respective country. It is assumed that Bulgarians unofficially employed abroad stay for 3 months in the respective country and then return to Bulgaria (the legally allowed period to stay for tourist purposes is 3 months). However, in practice estimated expenditures might be lower as most of the shuttle employees can rely on the informational, financial, and logistic support provided by Bulgarians already working abroad.

9.4.15 The unofficial status of these employees determines the use of informal channels for transferring the income. Transporting the own funds is the most frequently used method. Unofficial workers also use bus drivers, relatives and friends to carry money.

C. Future plans

9.4.16 Due to the quickly changing and dynamic world economic environment in the last years, BNB is currently revising the methodology for estimation of informal flows of compensation of employees and workers’ remittances.
CHAPTER 10

Other household related issues

(to be inserted after the April 2010 Meeting)
CHAPTER 11

Impact of the financial crisis

(to be inserted after the April 2010 Meeting)