United Nations ECE/CES/GE.20/2010/10

Economic and Social Council

Distr.: General
15 February 2010

Original: English

Economic Commission for Europe

Conference of European Statisticians

Group of Experts on National Accounts

Tenth session
Geneva, 26–29 April 2010
Item 6 of the provisional agenda
Review of the first draft of the publication
"Impact of Globalisation on National Accounts:
Practical Guidance"

The impact of globalisation on national accounts

Note by the Secretariat

Summary

This paper describes the challenge of measuring economic activities in the domestic economy, given the increased globalisation. Since all Statistical Offices face the same difficulties, in 2007, the Conference of European Statisticians (CES), decided to create a Group of Experts on the impact of Globalisation on National accounts (GGNA) "to review the main distortions in the compilation of national accounts and related source statistics, as caused by globalisation and to "put forward proposals to deal with these distortions so as to improve the quality of national accounts". This paper introduces the work of the Group.

I. What is globalisation[1]?

1. 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.

2. 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.

[1] This document has been prepared by Mr. Robin Lynch at the invitation of the Secretariat.

(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?

3. 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.

4. 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 (SNA 2008), the sixth edition of the Balance of Payments and International Investment Position (BPM6) and the European System of National Accounts (ESA 2010).

5. 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 recognized 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?

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

7. 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

Global phenomenon	*National accounts estimates most at risk*
Transfer pricing	Gross value added (GVA), Gross domestic product (GDP)
Toll processing, Goods sent abroad for processing	Gross value added, exports and imports
Internet trading	Imports and exports, household consumption
Intellectual property assets	Misallocation of GVA between countries, GFCF
Remittances	Household income, GNI
MNC arrangements	Operating surplus
Off-shore financing (SPEs)	Deficit and debt
Re-exports, transit and quasi transit trade	International trade
FDI relationships	International income and finance flows
Merchanting	International trade
Trade in services	International trade

Abbrevations: Special purpose entity (SPE), Gross fixed capital formation (GFCF), Gross national income (GNI).

IV. Looking at the elephant

8. 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.

9. 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.

10. 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 (US) model for data collection, which collects data on international activities of US 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

11. 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.

12. 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.

13. 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?

14. 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: MNCs and the allocation of output and value added to national economies

15. This chapter describes in general terms the measurement problems associated with the global nature of the production process as exercised by Multi-national Corporations (MNCs). MNCs 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 MNC. 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.

16. A case study of the position for Ireland gives some startling figures which show how the economy has been affected by the increase in MNC activity. For example, the top ten foreign owned MNCs in Ireland account for 34 per cent of all exports. In order to tackle the many issues introduced by the growing importance of MNCs 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 MNCs – 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: MNCs, foreign investment and related income flows

17. 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

18. 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 SNA 2008. 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 multinational enterprise (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

19. 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 SNA 2008 and BPM 6 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 BPM 6 and SNA 2008.

E. Chapter 5: Merchanting

20. 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 2006 SNA and BPM 6. There is little difference between the concept of merchanting of goods as set out in BPM 5 and BPM 6. But the statistical recording is different as BPM 6 shows the merchanted goods on a gross basis in the goods account, although enabling the service element to be derived. In BPM 5 the merchanting is shown in the services account on a net basis. BPM 6 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 SNA 2008 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: Re-exports, transit trade and quasi transit trade

21. This chapter sets out definitions of the terms in the chapter title: re-exports, transit trade and quasi transit trade. Re-exports are goods which are exported in virtually the same condition as when they are imported, and usually included in foreign trade statistics. A change of ownership takes place. Transit trade is goods which are transported across the country with no change and are generally excluded from the foreign trade statistics. There is no change in ownership. Quasi transit trade are goods imported in a country by an entity considered to be non-resident and then exported to a third country within the same economic union or customs area. At the first point of entry in the economic union, the goods are cleared for free circulation within the union – it is this point at which any import duty is applicable. There is often a significant difference in value between that declared at point of entry to the economic union, and that observed on entry to a second country within the union. This requires a unified approach across the union on how these transactions should be scored in the separate national accounts and the union accounts. The chapter sets out recommendations on this and other associated points of consistent recording of these transactions.

G. Chapter 7: Intellectual property

22. The SNA 2008 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 SNA 1993 and this remains unchanged in SNA 2008. 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 Multi-national Corporation 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 MNCs establishing affiliates abroad for the

purposes of holding patents and copyrights and receiving the associated service streams of payments.

H. Chapter 8: Labour mobility

23. 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 European Union 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

24. 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

25. This chapter covers e-commerce and second homes.

K. Chapter 11: The financial crisis

26. 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

27. 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.